

to the invention is that the peripheral device can be implemented so that any of a variety of types of target functionality can be included as part of the peripheral device. In particular, as described in more detail below, the peripheral device includes an interface control device which enables and manages communications between and among the host computing device, a cryptographic processing device that is part of the peripheral device, and target functionality that is also part of the peripheral device. The interface control device can be adapted to provide an appropriate interface for each type of target functionality. Thus, in general, any desired target functionality can be used with a peripheral device according to the invention, so long as the target functionality is implemented so as to enable communication with an interface of the type presented. Those skilled in the art of data communications can readily understand how to implement such communication with target functionality in view of the detailed description below of an embodiment of a peripheral device according to the invention, and, in particular, an interface control device of such a peripheral device.

For example, target functionality of a peripheral device according to the invention can be embodied as a memory device adapted to enable non-volatile storage of data. In general, any such memory device can be used to embody such target functionality. More particularly, a solid-state disk storage device (e.g., NAND flash memory device) can advantageously be used. Illustratively, a memory device that can be used to embody target functionality in a peripheral device according to the invention can be a compact flash memory device, such as an ATA format flash disk drive. Other solid-state disk storage devices, such as SCSI disks and IDE disks can be used. The construction and operation of memory devices in general, as well as those identified particularly above, is well understood by those skilled in that art, so that,

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together with an understanding of the required communication capability between the target functionality and the interface control device, a memory device for use with the invention can be easily constructed and operated. A peripheral device 5 according to the invention that includes a memory device that embodies the target functionality can be used, for example, to securely store data in a manner that enables a user of the data to easily carry the data with them wherever they go.

Target functionality of a peripheral device according to 10 the invention can also be embodied as a communications device adapted to enable communication between the host computing device and a remote device. In general, any such communications device can be used to embody target functionality. A communications device that can be used to 15 embody target functionality in a peripheral device according to the invention can include, for example, a data communications modem (such as, for example, a conventional telephone line modem, an ISDN modem, a cable modem, or a wireless modem) or a LAN transceiver (either wired or 20 wireless and, in the latter case, operating in, for example, the infrared or radiofrequency spectrum). The construction and operation of communication devices in general, as well as those identified particularly above, is well understood by those skilled in that art, so that, together with an 25 understanding of the required communication capability between the target functionality and the interface control device, a communication device for use with the invention can be easily constructed and operated. A peripheral device according to the invention that includes a communications 30 device that embodies target functionality can be used, for example, to encrypt electronic mail before transmission to an addressee. Or, such a peripheral device can be used, for example, to encrypt data files that a person wishes to securely transfer between a computing device at the person's 35 place of work and a computing device at the person's home.

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Target functionality of a peripheral device according to the invention can also be embodied as a biometric device, which is defined herein as any device that is adapted to receive input data regarding a physical characteristic of a person based upon a physical interaction of the person with the device. In general, any such biometric device can be used to embody target functionality. Biometric devices that can be used in a peripheral device according to the invention can include, for example, a fingerprint scanning device, a retinal scanning device or a faceprint scanning device.

In addition to conventional computational devices for storing and/or manipulating digital data, a biometric device includes a sensor for sensing the physical characteristic, and an analog-to-digital converter to transform the analog data representing the sensed characteristic into digital data. For example, a fingerprint scanning device includes a sensor upon which a person can place a finger, the sensor sensing the fingerprint of the finger, the content of the sensed fingerprint being converted into digital data by the device. Similarly, a retinal scanning device includes a sensor which can be placed proximate to a person's eye, the sensor sensing characteristics of the eye such as blood vessel pattern or iris pattern, the device translating the content of the sensed characteristics into digital data. The construction and operation of biometric devices in general, as well as those identified particularly above, is well understood by those skilled in that art, so that, together with an understanding of the required communication capability between the target functionality and the interface control device, a biometric device for use with the invention can be easily constructed and operated. Fingerprint scanning devices and retinal scanning devices that can readily be modified for use with the invention, i.e. to communicate with an interface control device according to the invention, are known to those skilled in that art. For example, fingerprint

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scanning devices such as those available from Identix Incorporated of Sunnyvale, California can be used in a fingerprint scanning device for use with the invention.

A peripheral device according to the invention that includes a biometric device that embodies the target functionality can be used, for example, to enable user authentication to a host computing device before allowing access to particular data stored on the host computing device. Such user authentication can be accomplished by using a biometric device to obtain biometric data from a user and comparing the biometric data to an appropriate library of biometric data representing a predetermined group of people (e.g., authorized users). The library of data can be stored in a memory device of the peripheral device.

When a peripheral device including a fingerprint scanning device is embodied as a card adapted to be inserted into a slot of a host computing device (e.g., a slot conforming to a PCMCIA standard), it may be useful to make the peripheral device relatively long, so that a portion of the card on which the sensor is positioned can extend from the slot of the host computing device, thereby enabling fingerprints to be scanned while the peripheral device is inserted in the host computing device. Similarly, for a fingerprint scanning device, retinal scanning device or faceprint scanning device, it may be desirable to form the device so that the sensor is connected to the remainder of the device via an appropriate communication line, thus providing some range of movement of the sensor while the peripheral device is inserted in the host computing device, thereby facilitating use of the device.

A biometric device can be used in different ways with a system according to the invention, depending upon the capabilities of the biometric device. Using known apparatus and methods, a "smart" biometric device can be implemented with the capability to detect the presence of an input to the

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sensor, and, upon such detection, initiate acquisition of the biometric data and performance by the peripheral device of the appropriate data comparison. Such a biometric device can be used to perform user authentication as in step 704 of the method 700 above. Alternatively, the biometric device may be "stupid" and require that a user initiate the data acquisition and authentication process. Such a biometric device can be used to perform user authentication in a peripheral device that allows operation without entry of a proper access code, as in steps 714 and 715 of the method 700.

Target functionality of a peripheral device according to the invention can be also embodied as a smart card reader device adapted to communicate with a smart card, such as, for example, a smart card compliant with the ISO 7816 standard. Such a device can be implemented by adapting a conventional smart card reader, the construction and operation of which is well known to those skilled in that art, with a communications interface that enables the smart card reader to communicate with the interface control device. A peripheral device according to the invention that includes a smart card reader device can be used to provide security features to a smart card reader, or add to existing security features of a smart card reader.

It is to be understood that the examples given above are merely illustrative, not exhaustive, of the ways in which a peripheral device according to the invention can be used. Many more possibilities exist.

FIG. 8 is a block diagram of a peripheral device 800 according to another embodiment of the invention. The peripheral device 800 includes a cryptographic processing device 801, an interface control device 802, a first memory device 803, a second memory device 804, a real-time clock 805, a host computing device input/output (I/O) interface 806 and target functionality 807.

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5 The host computing device I/O interface 806 enables communications between the peripheral device 800 and a host computing device. The electrical and mechanical characteristics of the I/O interface 806, as well as the protocol used to enable communication via the interface 806, are established in any manner that conforms to the industry standard specifications for an interface of that type. For example, a peripheral device according to the invention can be adapted for insertion into a PCMCIA slot of a host
10 computing device. In such a peripheral device, the electrical and mechanical characteristics and communications protocol for the host computing device I/O interface 806 are established in conformance with the appropriate PCMCIA standards.

15 The cryptographic processing device 801 can be adapted to perform security operations. Generally, the cryptographic processing device 801 can be embodied by any processor capable of performing the cryptographic operations desired to be provided by the peripheral device 800. In one embodiment
20 of the peripheral device 800, the cryptographic processing device 801 is a special purpose embedded processor, embodied on a single integrated chip and designated as MYK-82 (and also referred to by the name Capstone), which includes an ARM6™ processor core and several special purpose
25 cryptographic processing elements that have been developed by the Department of Defense. The construction and operation of the Capstone chip is known by those skilled in the art of cryptographic processing.

The first memory device 803 can be a non-volatile data
30 storage device which can be used to store computer programs and persistent data. The first memory device 803 can be implemented by any appropriate such device (of which there are many conventional, readily available incarnations), such as, for example, a conventional flash memory device.

35 The second memory device 804 can be a volatile data

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storage device that can also be a rapidly accessible data
storage device in which frequently used data and program
instructions can be stored during operation of the peripheral
device 800. The second memory device 804 can also be
5 implemented by any appropriate such device (of which there
are many conventional, readily available embodiments), such
as, for example, a conventional random access memory (RAM)
device.

The real-time clock 805 enables the creation of time
10 stamps, which can be used in a number of security operations.
Advantageously, the time stamps created by the real-time
clock 805 are more secure than those that could otherwise be
produced by the relatively insecure clock of a host computing
device. The real-time clock 805 includes a conventional
15 battery backup device that maintains power to the real-time
clock 805 when the peripheral device 800 is not in use (i.e.,
when power is not supplied to the peripheral device 800), so
that the correct time is continuously preserved within the
peripheral device 800. The real-time clock 805 (including
20 battery backup) can be embodied by any conventional such
device, such as the DS1302 clock available from Dallas
Semiconductor of Dallas, Texas.

In the peripheral device 800, the interface control
device 802 mediates the interaction between the host
25 computing device, the target functionality 807 and the
cryptographic processing device 801. In one embodiment of
the peripheral device 800, the interface control device 802
is a conventional field-programmable gate array (FPGA) that
is programmed to perform the functions that it is desired to
30 implement with the interface control device 802, as described
in more detail below. The interface control device 802,
under control of the cryptographic processing device 801, can
be adapted to enable the peripheral device 800 to assume the
identity of the target functionality 807, as discussed above.
35 The interface control device 802 also enables the in-line

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cryptography aspect of the invention, since the interface control device 802 controls the flow of data between the host computing device and the target functionality 807.

FIG. 9A is a block diagram illustrating the flow of data through the interface control device 802 of FIG. 8. Data transferred from a host computing device enters the peripheral device 800 (not demarcated in FIG. 9A) through the host computing device I/O interface 806. The interface control device 802 presents the data to a cryptographic processing device interface 808 (not shown in FIG. 8). Depending on the configuration of the interface control device 802, as determined by operation of the peripheral device driver and/or by settings established during the manufacture of the peripheral device 800, the data may or may not be processed by the cryptographic processing device 801 (FIG. 8). Typically (or, in some cases, necessarily), as discussed in more detail above, cryptographic processing will occur. The interface control device 802 then causes the data to be transferred to the target functionality 807. Data being transferred from the target functionality 807 to the host computing device follows a similar path in the reverse direction. When the target functionality 807 is not present or is not being used, data transferred from the host computing device, after being presented to the cryptographic processing device interface 808 and being processed by the cryptographic processing device 801, is caused to be transferred back to the host computing device I/O interface 806 (and, from there, to the host computing device) by the interface control device 802.

FIG. 9B is a block diagram of a particular embodiment of an interface control device 910 for use in a peripheral device according to the invention. As shown in FIG. 9B, the host computing device communicates via a PCMCIA interface and the target functionality is embodied by a compact flash memory device. Those skilled in the art will readily

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appreciate how the interface control device 910 can be modified for use with other host computing device interfaces and/or target functionalities.

The interface control device 910 includes sets of
5 configuration registers 911. The data stored in the configuration registers 911 establish operating characteristics of the interface control device: in particular, the content of the configuration registers enables the interface control device to present to the host
10 computing device a desired identification of the peripheral device, and determines whether data passing through the peripheral device must be subjected to security operations.

A set of configuration registers is maintained for the host computing device I/O interface, the cryptographic
15 processing device interface, and the target functionality interface. In particular, the content of the host computing device I/O interface configuration registers is such that the interaction of the host computing device with the peripheral device is the same as if the security functionality were not
20 present (unless the data security system is operating in security functionality only mode). The content of the target functionality interface registers reflects the presence of the security functionality. The cryptographic processing device interface registers bridge the gap between the other
25 two sets of registers.

The remainder of the functional blocks of the interface control device 910 shown in FIG. 9B perform functions and operate in a manner that can readily be understood by those skilled in the art from the designation and interconnection
30 of those blocks in FIG. 9B.

In general, the security functionality of a peripheral device according to the invention can be configured to perform any cryptographic operation, as well as other, related mathematical operations. A configuration of the
35 security functionality that enables a particular

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cryptographic or mathematical operation can be produced, for example, by using appropriate existing cryptographic software, application-specific hardware, or combination of the two, as known by those skilled in the art of producing
5 cryptographic devices. Following is a description of exemplary cryptographic and mathematical operations that can be implemented as part of a security functionality of a peripheral device according to the invention. These cryptographic and mathematical operations are well-known and
10 can readily be implemented in a peripheral device according to the invention by a person of skill in the art of cryptography.

For example, a peripheral device according to the invention can implement one or more cryptographic key
15 exchange operations. Any key exchange operation can be implemented, such as, for example, the Department of Defense Standard, the RSA, the Diffie-Hellman, and the X9.42 (ANSI Banking Standard) key exchange algorithms.

A peripheral device according to the invention can also
20 implement one or more hash operations. Any hash operation can be implemented, such as, for example, the FIPS 180-1 (SHA-1), the Message Digest 2 (RSA), and the Message Digest 5 (RSA) algorithms.

A peripheral device according to the invention can also
25 implement one or more digital signature operations. Any digital signature operation can be implemented, such as, for example, the FIPS 186 (DSA - 512, 1024) and the RSA Signature (512, 768, 1024, 2048) algorithms.

A peripheral device according to the invention can also
30 implement one or more key wrapping operations for both symmetric and asymmetric keys. A key wrapping operation can ensure that plaintext keys are not accessible external to the peripheral device. Any key wrapping operation can be implemented.

35 A peripheral device according to the invention can also

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implement one or more symmetric encryption operations. Any symmetric encryption operation can be implemented, such as, for example, the FIPS 185 (implemented completely in hardware), the DES (including 3DES, EDE3, CBC and ECB), the RC-2 and the RC-4 algorithms.

A peripheral device according to the invention can also implement one or more asymmetric (public key) encryption operations. While asymmetric encryption operations underlie the key exchange operations described above, asymmetric key operations can also be used independently in a peripheral device according to the invention for bulk encryption. Any asymmetric encryption operation can be implemented, such as, for example, the RSA and Diffie-Hellman algorithms.

A peripheral device according to the invention can also implement one or more exponentiation operations, which are required in many cryptographic operations. Any exponentiation operation can be implemented. Since ~~peripheral~~ exponentiation requires a significant amount of processing time relative to other mathematical operations, it can be desirable to implement an exponentiation operation in dedicated hardware. In one embodiment of a peripheral device according to the invention, the security functionality of the peripheral device includes a full 1024 bit exponentiator implemented in hardware.

Various embodiments of the invention have been described. The descriptions are intended to be illustrative, not limitative. Thus, it will be apparent to one skilled in the art that certain modifications may be made to the invention as described above without departing from the scope of the claims set out below.

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We claim:

1. A peripheral device, comprising:
 - security means for enabling one or more security operations to be performed on data;
 - 5 target means for enabling a defined interaction with a host computing device;
 - means for enabling communication between the security means and the target means;
 - means for enabling communication with a host
 - 10 computing device; and
 - means for operably connecting the security means and/or the target means to the host computing device in response to an instruction from the host computing device.
- 15 *Sub 24* 2. A peripheral device as in Claim 1, wherein the target means comprises means for non-volatilely storing data.
3. A peripheral device as in Claim 1, wherein the target means comprises means for enabling communication between the host computing device and a remote device.
- 20 4. A peripheral device as in Claim 1, wherein the target means comprises a biometric device.
5. A peripheral device as in Claim 1, wherein the target means comprises means for communicating with a smart card.
- 25 6. A peripheral device as in Claim 1, further comprising means for mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means.
7. A peripheral device as in Claim 1, further

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comprising means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the means for enabling ~~5 a defined interaction with a host computing device.~~

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8. A peripheral device, comprising:
security means for enabling one or more security operations to be performed on data;
target means for enabling a defined interaction
10 with a host computing device;
means for enabling communication between the security means and the target means;
means for enabling communication with a host computing device; and
15 means for mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means.

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9. A peripheral device as in Claim 8, wherein the
20 target means comprises means for non-volatilely storing data.

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10. A peripheral device as in Claim 8, wherein the target means comprises means for enabling communication between the host computing device and a remote device.

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11. A peripheral device as in Claim 8, wherein the
25 target means comprises a biometric device.

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12. A peripheral device as in Claim 8, wherein the target means comprises means for communicating with a smart card.

13. A peripheral device as in Claim 8, further

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comprising means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the means for enabling
5 a defined interaction with a host computing device.

14. A peripheral device, comprising:
security means for enabling one or more security operations to be performed on data;
target means for enabling a defined interaction
10 with a host computing device;
means for enabling communication between the security means and the target means;
means for enabling communication with a host computing device; and
15 means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the means for enabling a defined interaction with a host computing
20 device.

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²⁵ 15. A peripheral device as in Claim ²⁴ 14, wherein the target means comprises means for non-volatilely storing data.

²⁸ 16. A peripheral device as in Claim ²⁴ 14, wherein the target means comprises means for enabling communication
25 between the host computing device and a remote device.

³² 17. A peripheral device as in Claim ²⁴ 14, wherein the target means comprises a biometric device.

³⁵ 18. A peripheral device as in Claim ²⁴ 14, wherein the target means comprises means for communicating with a smart
30 card.

19. A peripheral device, comprising:
security means for enabling one or more security
operations to be performed on data;
a solid-state disk storage device for storing data;
5 means for enabling communication between the
security means and the solid-state disk storage device;
and
means for enabling communication with a host
~~computing device.~~

10 *Sub a7*
20. A peripheral device as in Claim 1, wherein the
solid-state disk storage device comprises an ATA format flash
disk drive.

15 21. A peripheral device, comprising:
security means for enabling one or more security
operations to be performed on data;
means for wirelessly communicating with a remote
device;
means for enabling communication between the
security means and the wireless communication means; and
20 means for enabling communication with a host
~~computing device.~~

25 *Sub a7*
22. A peripheral device as in Claim 21, wherein the
wireless communication means comprises a wireless modem.

23. A peripheral device as in Claim 21, wherein the
25 wireless communication means comprises a wireless LAN
~~transceiver.~~

30 24. A peripheral device, comprising:
security means for enabling one or more security
operations to be performed on data;
a biometric device for receiving input data

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regarding a physical characteristic of a person based upon a physical interaction of the person with the peripheral device;

5 means for enabling communication between the security means and the biometric device; and means for enabling communication with a host ~~computing device~~

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25. A peripheral device as in Claim 24, wherein the biometric device comprises a fingerprint scanning device.

10 26. A peripheral device as in Claim 24, wherein the biometric device comprises a retinal scanning device.

27. A peripheral device, comprising:
security means for enabling one or more security operations to be performed on data;
15 means for communicating with a smart card;
means for enabling communication between the security means and the smart card communication means; and
means for enabling communication with a host
20 computing device.

28. A data security system, comprising:
a host computing device including one or more device interfaces adapted to enable communication with another device;

25 a peripheral device, comprising:
security means for enabling one or more security operations to be performed on data;
target means for enabling a defined interaction with a host computing device;
30 means for enabling communication between the security means and the target means;

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means for enabling communication with a host computing device; and

means for operably connecting the security means and/or the target means to the host computing device in response to an instruction from the host computing device.

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A data security system, comprising:

a host computing device including one or more device interfaces adapted to enable communication with another device;

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a peripheral device, comprising:

security means for enabling one or more security operations to be performed on data;

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target means for enabling a defined interaction with a host computing device; and

means for enabling communication between the security means and the target means;

means for enabling communication with a host computing device; and

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means for mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means.

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30. A data security system, comprising:

a host computing device including one or more device interfaces adapted to enable communication with another device;

a peripheral device, comprising:

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security means for enabling one or more security operations to be performed on data;

target means for enabling a defined interaction with a host computing device; and

means for enabling communication between the

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security means and the target means;

means for enabling communication with a host computing device; and

5 means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the means for enabling a defined ~~interaction with a host computing device.~~

10 ³⁸~~31~~. For use in a peripheral device adapted for communication with a host computing device, performance of one or more security operations on data, and interaction with a host computing device in a defined way, a method comprising the steps of:

15 receiving a request from a host computing device for information regarding the type of the peripheral device; and
providing to the host computing device, in response to the request, information regarding the type of the
20 defined interaction.

25 ^{Sub A¹⁰}
32. For use in a peripheral device adapted for communication with a host computing device, performance of one or more security operations on data, and interaction with a host computing device in a defined way, a method comprising the steps of:

receiving an instruction from a host computing device regarding operation of the peripheral device; and
performing security operations and/or the defined interaction in response to the instruction from the host
30 computing device.

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PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY

William P. Bialick

Mark J. Sutherland

Janet L. Dolphin-Peterson

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Thomas K. Rowland

Kirk W. Skeba

Russell D. Housley

ABSTRACT

The invention enables a peripheral device to communicate
 10 with a host computing device to enable one or more security
 operations to be performed by the peripheral device on data
 stored within the host computing device, data provided from
 the host computing device to the peripheral device (which can
 then be, for example, stored in the peripheral device or
 15 transmitted to yet another device), or data retrieved by the
 host computing device from the peripheral device (e.g., data
 that has been stored in the peripheral device, ~~or~~ transmitted
 to the peripheral device from another device). In
 particular, the peripheral device can be adapted to enable,
 20 in a single integral peripheral device, performance of one or
 more security operations on data, and a defined interaction
 with a host computing device that has not previously been
 integrated with security operations in a single integral
 device. The defined interactions can provide a variety of
 25 types of functionality (e.g., data storage, data
 communication, data input and output, user identification),
~~as described further below.~~ The peripheral device can also
 be implemented so that the security operations are performed
 in-line, i.e., the security operations are performed between
 30 the communication of data to or from the host computing
 device and the performance of the defined interaction.
 Moreover, the peripheral device can be implemented so that
 the security functionality of the peripheral device is
 transparent to the host computing device.

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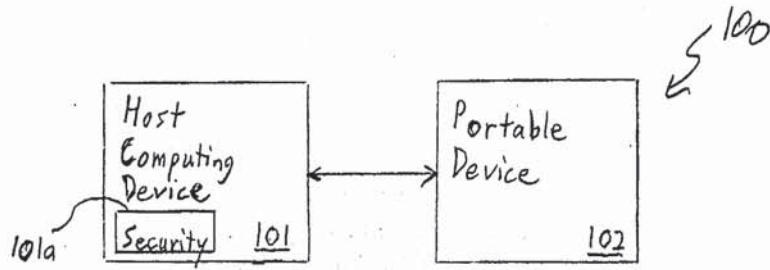


FIG. 1
(Prior Art)

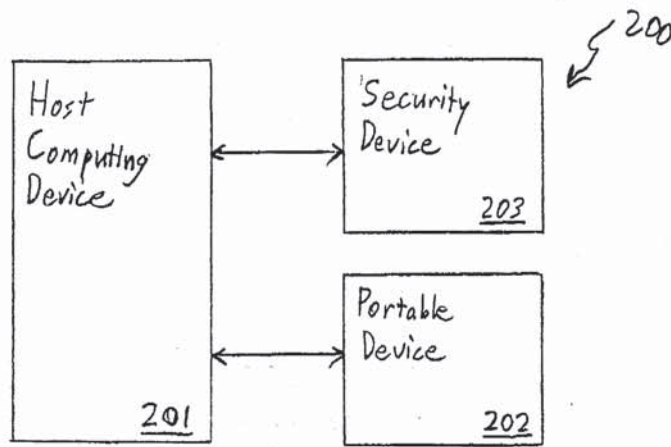


FIG. 2
(Prior Art)

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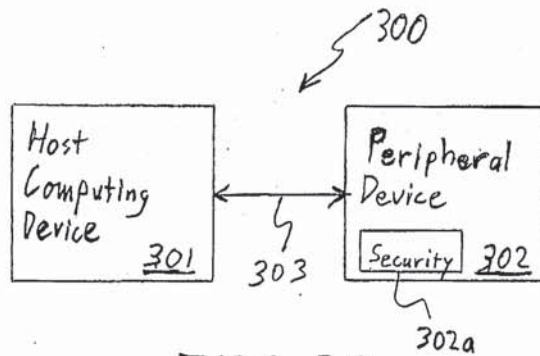


FIG. 3A

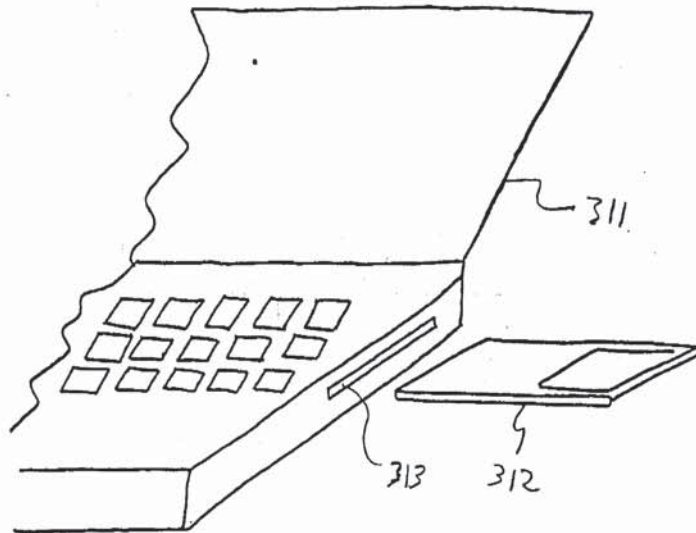


FIG. 3B

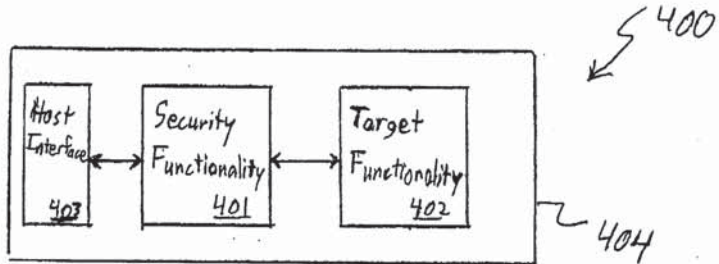


FIG. 4

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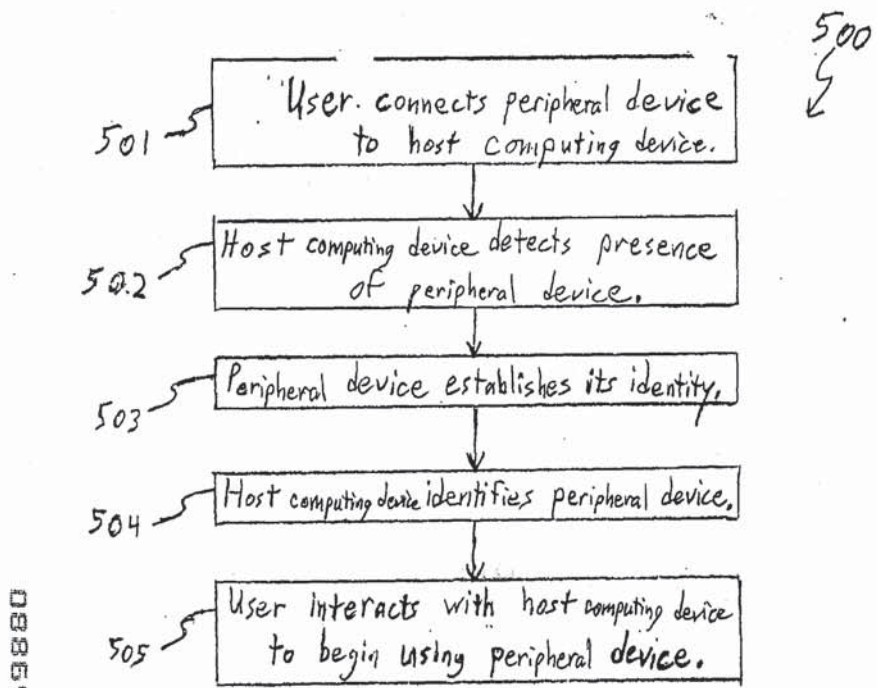


FIG. 5

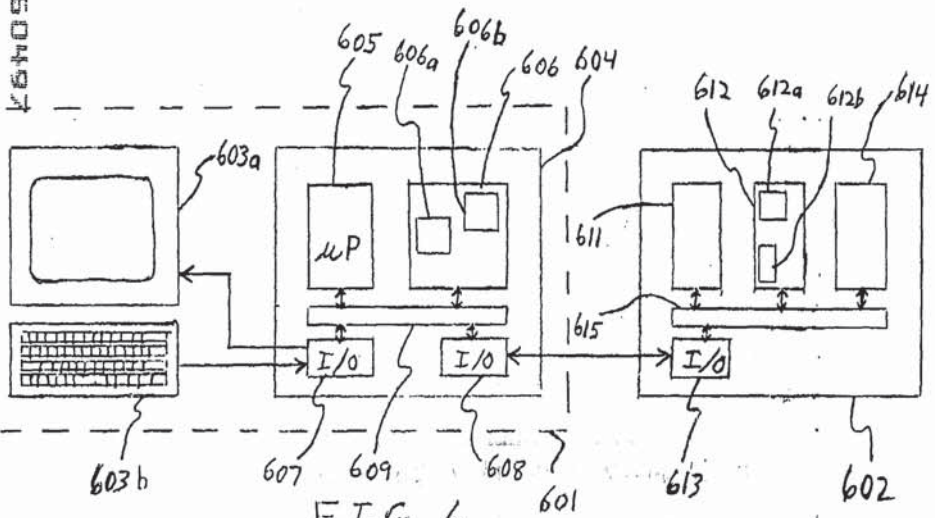


FIG. 6

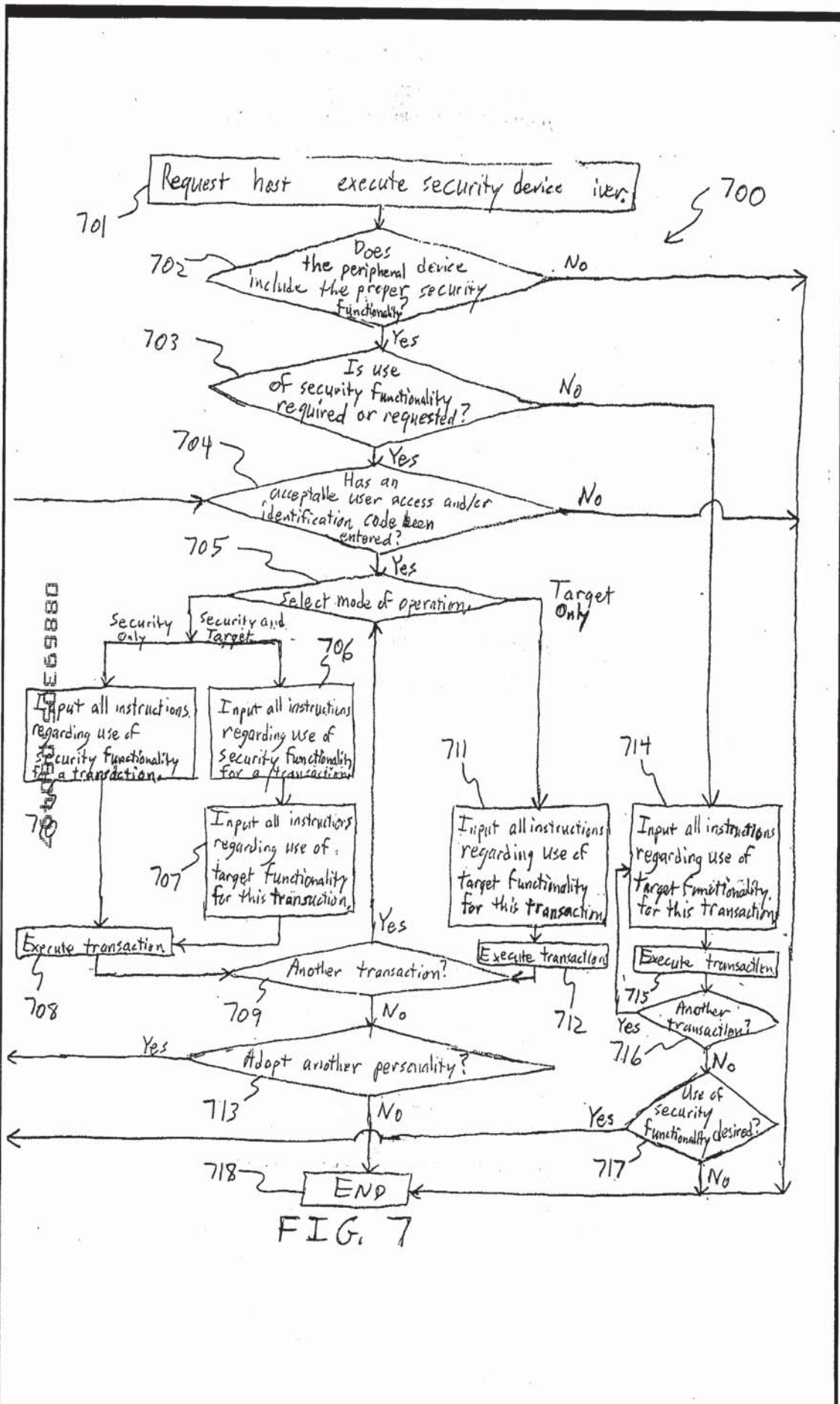


FIG. 7

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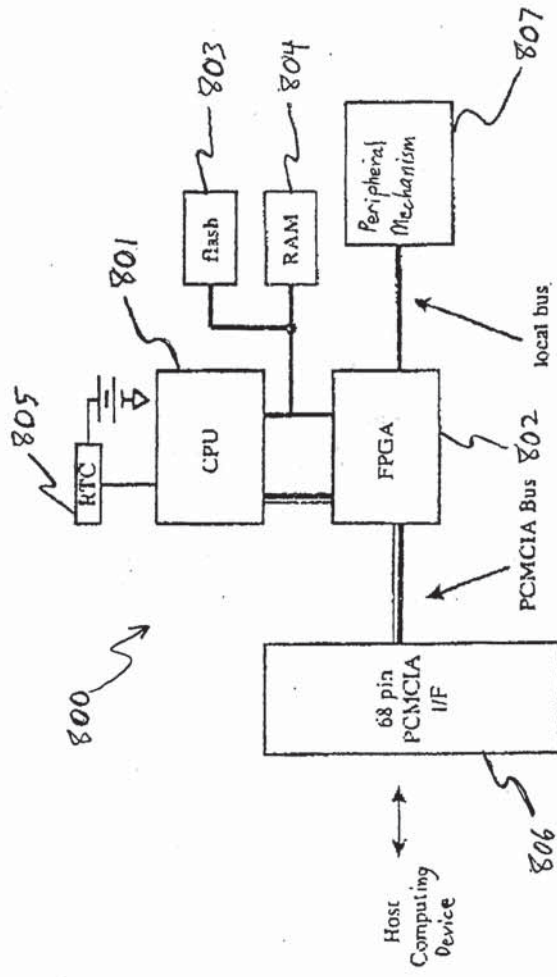


FIG. 8

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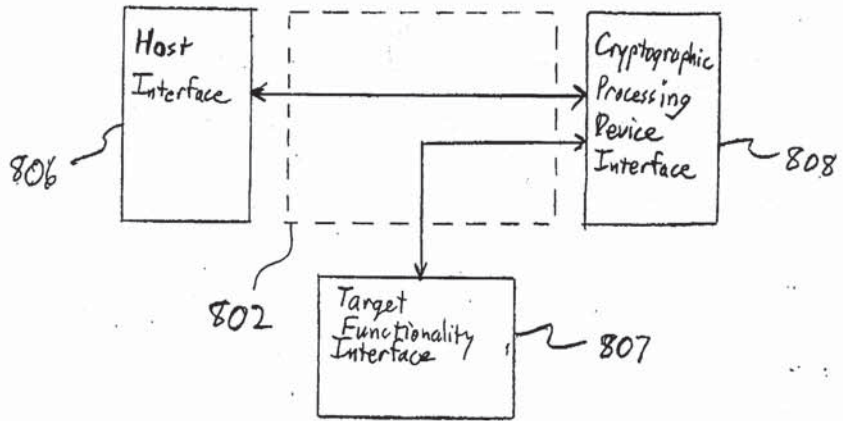


FIG. 9A

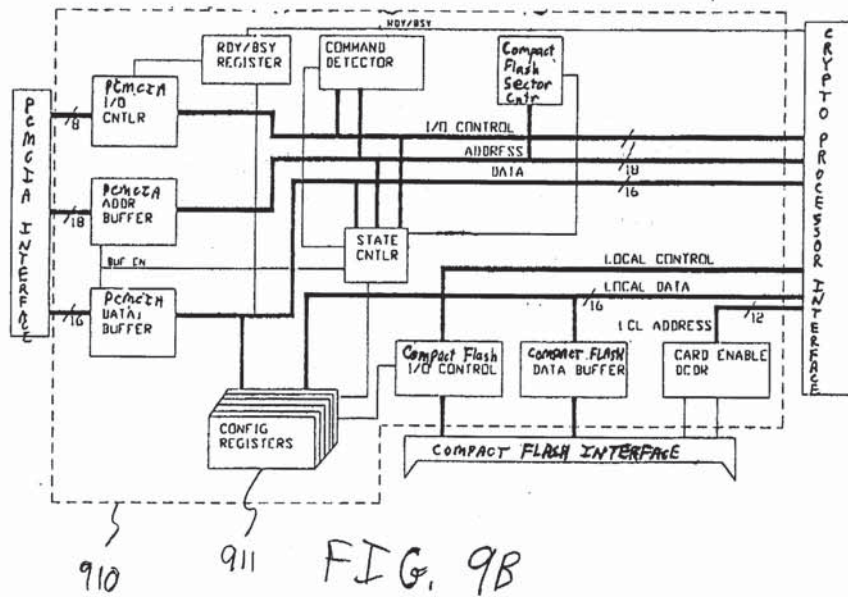


FIG. 9B

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below adjacent to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of subject matter (process, machine, manufacture, or composition of matter, or an improvement thereof) which is claimed and for which a patent is sought by way of the application entitled: Peripheral Device With Integrated Security Functionality

- which (check) is attached hereto.
- and is amended by the Preliminary Amendment attached hereto.
- was filed on _____ as Application Serial No. _____.
- and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

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I acknowledge the duty to disclose to the United States Patent and Trademark Office information known to me to be material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim the priority benefit under Title 35, United States Code, §§ 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate for the same invention having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
<u>N/A</u>			Yes	No
(Number)	(Country)	(Date Filed)		
<u> </u>	<u> </u>	<u> </u>	Yes	No
(Number)	(Country)	(Date Filed)		

I hereby claim the priority benefit under Title 35, United States Code, §§ 119 and 365(a) of any international patent application(s), listed below, that do not designate the United States, but do designate at least one country other than the United States, and have also identified below any such international application for the same invention having a filing date before that of the application on which priority is claimed:

Prior International Application(s)		Priority Claimed	
<u>N/A</u>		Yes	No
(Number)	(Date Filed)		
<u> </u>	<u> </u>	Yes	No
(Number)	(Date Filed)		

I hereby claim the priority benefit under Title 35, United States Code, § 119(e) of the United States provisional patent application(s) listed below and, insofar as any subject matter of the claims of this application is not disclosed in such prior United States provisional application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which became available between the filing date of the prior provisional application(s) and the national or PCT international filing date of this application:

N/A
 (Appl. Ser. No.) (Date Filed) (Status-patented, pending, abandoned)

 (Appl. Ser. No.) (Date Filed) (Status-patented, pending, abandoned)

I hereby claim the priority benefit under Title 35, United States Code, § 120 of the United States patent application(s) listed below and, insofar as any subject matter of the claims of this application is not disclosed in such prior United States application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

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I hereby appoint the following attorney, with full power of substitution, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith: David R. Graham, Reg. No. 36,150.

Please address all correspondence regarding this application to David R. Graham, 1337 Chewpon Avenue, Milpitas, California 95035.

Please direct all telephone calls regarding this application to David R. Graham at telephone number (408) 945-9912.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's signature _____ Date _____
Full name of inventor William P. Bialick
Residence Clarksville, Maryland Citizenship US
Post Office Address 7150 Moorland Drive
Clarksville, Maryland 21029-1735

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Inventor's signature _____ Date _____
Full name of inventor Mark J. Sutherland
Residence Milpitas, California Citizenship US
Post Office Address 1209 Eagle Ridge Way
Milpitas, California 95035-7817

Inventor's signature _____ Date _____
Full name of inventor Janet L. Dolphin-Peterson
Residence Belvedere, California Citizenship US
Post Office Address 296 Beach Road
Belvedere, California 94920-2472

Inventor's signature _____ Date _____
Full name of inventor Thomas K. Rowland
Residence Los Gatos, California Citizenship US
Post Office Address P.O. Box 33157
Los Gatos, California 95031-3157

Inventor's signature _____ Date _____
Full name of inventor Kirk W. Skeba
Residence Fremont, California Citizenship US
Post Office Address 400 Calistoga Circle
Fremont, California 94536-7620

Inventor's signature _____ Date _____
Full name of inventor Russell D. Housley
Residence Herndon, Virginia Citizenship US
Post Office Address 918 Spring Knoll Drive
Herndon, Virginia



0300 0200
#15

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security Functionality
Serial No.: 08/869,305 Filed: June 4, 1997
Examiner: Unknown Group Art Unit: Unknown
Attorney Docket No.: SPY-004

Milpitas, California
August 11, 1997

Assistant Commissioner for Patents
Washington, D. C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, Applicants bring the documents (copy of the U.S. Patent enclosed) listed on the enclosed Form PTO-1449 to the Examiner's attention in the above-identified application. Citation of these documents shall not be construed as an admission that the documents are necessarily prior art with respect to the instant invention. Also, citation of these documents shall not be construed as an admission that the information disclosed therein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Assistant Commissioner for Patents,
Washington, D.C. 20231, on August 11, 1997.

8-11-97 Date
David R. Graham Signature

Respectfully submitted,
David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants

part of #15

1 OF 1

U.S. DEPT OF COMMERCE - PATENT AND TRADEMARK OFFICE		ATTORNEY DOCKET NO.: SPY-004	SERIAL NO.: 08/869,305			
INFORMATION DISCLOSURE CITATION (Attach separate sheets if necessary)		APPLICANTS: William P. Bialick et al.				
		FILING DATE: June 4, 1997	GROUP ART UNIT: Unknown			
U.S. PATENTS						
EXAMINER'S INITIALS	PATENT NUMBER	ISSUE DATE	INVENTOR(S)	CLASS	SUB-CLASS	FILING DATE
<i>lvd</i>	79	8/13/96	Caputo et al.	380	26	7/12/94
FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	DOCUMENT NUMBER	PUBLICATION DATE	NAME(S)	COUNTRY	TRANSLATION?	
					YES	NO
COMMONLY OWNED, CO-PENDING U.S. PATENT APPLICATIONS						
EXAMINER'S INITIALS	SERIAL NUMBER	ATTORNEY DOCKET NO.	APPLICANT(S)	CLASS	SUB-CLASS	FILING DATE
<i>lvd</i>	08/869,120	SPY-003	William P. Bialick et al.			6/4/97
OTHER DOCUMENTS						
EXAMINER'S INITIALS	AUTHOR(S), TITLE, DATE, PERTINENT PAGES, ETC.					
EXAMINER: <i>Ly V. Kuo</i>	DATE CONSIDERED: <i>11/23/98</i>					
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						



Other Prior Art

According to the information contained in form PTO-1449 or PTO-892, there are one or more other prior art/non-patent literature documents missing from the original file history record obtained from the United States Patent and Trademark Office. Upon your request we will attempt to obtain these documents from alternative resources. Please note that additional charges will apply for this service.

This page is not part of the official USPTO record. It has been determined that content identified on this document is missing from the original file history record.

Transaction History Date 1997-11-04
 Date information retrieved from USPTO Patent
 Application Information Retrieval (PAIR)
 system records at www.uspto.gov

BEST COPY



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
08/862,305	03/04/97	BIALICK	W SPY-004
		029271104	
DAVID R SPANAH 1337 CHEWON AVENUE MILPITAS CA 95035			NOT ASSIGNED
			2202
		DATE MAILED:	11/04/97

NOTICE TO FILE MISSING PARTS OF APPLICATION
Filing Date Granted

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted ALONG WITH THE PAYMENT OF A SURCHARGE for items 1 and 3-6 only of \$ 12.50 for a large entity small entity in compliance with 37 CFR 1.27. The surcharge is set forth in 37 CFR 1.16(e). Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

If all required items on this form are filed within the period set above, the total amount owed by applicant as a
 large entity small entity (verified statement filed), is \$ 14.50.

1. The statutory basic filing fee is:
 - missing.
 - insufficient.
 Applicant must submit \$ 12.50 to complete the basic filing fee and/or file a verified small entity statement claiming such status (37 CFR 1.27).
2. Additional claim fees of \$ 10.00, including any multiple dependent claim fees, are required. Applicant must either submit the additional claim fees or cancel additional claims for which fees are due.
3. The oath or declaration:
 - is missing.
 - does not cover the newly submitted items.
 - does not identify the application to which it applies.
 - does not include the city and state or foreign country of applicant's residence.
 An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.
4. The signature(s) to the oath or declaration is/are:
 - missing.
 - by a person other than inventor or person qualified under 37 CFR 1.42, 1.43, or 1.47.
 A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

6. A \$ _____ processing fee is required since your check was returned without payment (37 CFR 1.21(m)).
7. Your filing receipt was mailed in error because your check was returned without payment.
8. The application does not comply with the Sequence Rules.
See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."
9. OTHER:

Direct the response and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the response.

Customer Service Center,
 Initial Patent Examination Division (703) 308-1202

1354c U.S. PRO
01/15/98

Sector #

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security Functionality
Serial No.: 08/869,305 Filed: June 4, 1997
Examiner: Unknown Group Art Unit: 2202
Attorney Docket No.: SPY-004

3

Milpitas, California
January 5, 1998

Box Missing Parts
Assistant Commissioner for Patents
Washington, D. C. 20231

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION -
FILING DATE GRANTED

Sir:

In response to the "Notice to File Missing Parts of Application - Filing Date Granted" mailed by the United States Patent and Trademark Office on November 4, 1997, the following documents are enclosed to complete the filing of the above-referenced patent application:

1. Declaration and Power of Attorney for Patent Application, signed in counterpart by the inventors in compliance with 37 CFR 1.63;
2. Copy of Notice to File Missing Parts of Application - Filing Date Granted; and
3. Verified Statement Under 37 CFR 1.9(f) and 1.27(c) Claiming Small Entity Status by Assignee.

Enclosed is a check (Check No. 1155) in the amount of \$961.00 for:

1. Statutory basic filing fee - \$395.00;
2. Additional claim fees - \$501.00; and
3. Surcharge for filing declaration on a date later than the filing date of the application - \$65.00.

It is hereby submitted that the enclosed documents complete the filing of the above-referenced patent application and justify the filing date of June 4, 1997. This document is being submitted in duplicate. If there are any questions regarding this Response, please telephone Applicants' undersigned attorney at (408) 945-9912.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on January 5, 1998.

1-5-98 David R. Graham
Date Signature

Respectfully submitted,

David R. Graham

David R. Graham
Reg. No. 36,150
Attorney for Applicants

135jc U.S. Pat. & Tm. Off.
01/12/98

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

#3

I, the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below adjacent to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of subject matter (process, machine, manufacture, or composition of matter, or an improvement thereof) which is claimed and for which a patent is sought by way of the application entitled: Peripheral Device With Integrated Security Functionality

- which (check) is attached hereto.
- and is amended by the Preliminary Amendment attached hereto.
- was filed on June 4, 1997, as Application Serial No. 08/869,305.
- and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified application, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office information known to me to be material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim the priority benefit under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate for the same invention having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
<u>N/A</u>			Yes	No
(Number)	(Country)	(Date Filed)		
<u> </u>	<u> </u>	<u> </u>	Yes	No
(Number)	(Country)	(Date Filed)		

I hereby claim the priority benefit under Title 35, United States Code, §§ 119 and 365(a) of any international patent application(s), listed below, that do not designate the United States, but do designate at least one country other than the United States, and have also identified below any such international application for the same invention having a filing date before that of the application on which priority is claimed:

Prior International Application(s)		Priority Claimed	
<u>N/A</u>		Yes	No
Number)	(Date Filed)		
<u> </u>	<u> </u>	Yes	No
Number)	(Date Filed)		

01/12/98
 15818878

I hereby claim the priority benefit under Title 35, United States Code, § 119(e) of the United States provisional patent application(s) listed below and, insofar as any subject matter of the claims of this application is not disclosed in such prior United States provisional application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which became available between the filing date of the prior provisional application(s) and the national or PCT international filing date of this application:

<u>N/A</u>	_____	_____
(Appl. Ser. No.)	(Date Filed)	(Status-patented, pending, abandoned)
<u> </u>	_____	_____
(Appl. Ser. No.)	(Date Filed)	(Status-patented, pending, abandoned)

I hereby claim the priority benefit under Title 35, United States Code, § 120 of the United States patent application(s) listed below and, insofar as any subject matter of the claims of this application is not disclosed in such prior United States application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

<u>N/A</u>	_____	_____
(Appl. Ser. No.)	(Date Filed)	(Status-patented, pending, abandoned)
<u> </u>	_____	_____
(Appl. Ser. No.)	(Date Filed)	(Status-patented, pending, abandoned)

I hereby claim the priority benefit under Title 35, United States Code, §§ 120 and 365(c) of any international patent application(s), listed below, that designate the United States and have also identified below any such international application for the same invention having a filing date before that of the application(s) on which priority is claimed, and, insofar as any subject matter of the claims of this application is not disclosed in such prior international application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which became available between the filing date of the prior international application(s) and the national or PCT international filing date of this application:

Prior International Application(s)		Priority Claimed	
<u>N/A</u>	_____	Yes	No
(Number)	(Date Filed)		
<u> </u>	_____	Yes	No
(Number)	(Date Filed)		

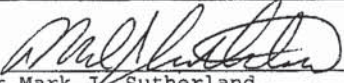
I hereby appoint the following attorney, with full power of substitution, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith: David R. Graham, Reg. No. 36,150.

Please address all correspondence regarding this application to David R. Graham, 1337 Chewpon Avenue, Milpitas, California 95035.

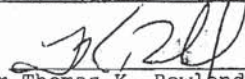
Please direct all telephone calls regarding this application to David R. Graham at telephone number (408) 945-9912.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

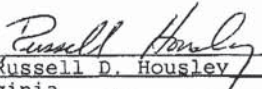
Inventor's signature _____ Date _____
Full name of inventor William P. Bialick
Residence Clarksville, Maryland Citizenship US
Post Office Address 7150 Moorland Drive
Clarksville, Maryland 21029-1735

Inventor's signature  Date 18 Dec 97
Full name of inventor Mark J. Sutherland
Residence Milpitas, California Citizenship US
Post Office Address 1209 Eagle Ridge Way
Milpitas, California 95035-7817

Inventor's signature _____ Date _____
Full name of inventor Janet L. Dolphin-Peterson
Residence Belvedere, California Citizenship US
Post Office Address 296 Beach Road
Belvedere, California 94920-2472

Inventor's signature  Date 12-18-97
Full name of inventor Thomas K. Rowland
Residence Los Gatos, California Citizenship US
Post Office Address P.O. Box 33157
Los Gatos, California 95031-3157

Inventor's signature _____ Date _____
Full name of inventor Kirk W. Skeba
Residence Fremont, California Citizenship US
Post Office Address 400 Calistoga Circle
Fremont, California 94536-7620

Inventor's signature  Date 20 Aug 1997
Full name of inventor Russell D. Housley
Residence Herndon, Virginia Citizenship US
Post Office Address 918 Spring Knoll Drive
Herndon, Virginia

86/2719
01/12/98
01/12/98

I hereby appoint the following attorney, with full power of substitution, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith: David R. Graham, Reg. No. 36,150.

Please address all correspondence regarding this application to David R. Graham, 1337 Chewpon Avenue, Milpitas, California 95035.

Please direct all telephone calls regarding this application to David R. Graham at telephone number (408) 945-9912.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's signature William P. Bialick Date 12/19/97
Full name of inventor William P. Bialick
Residence Clarksville, Maryland Citizenship US
Post Office Address 7150 Moorland Drive
Clarksville, Maryland 21029-1735

Inventor's signature Mark J. Sutherland Date 18 Dec 97
Full name of inventor Mark J. Sutherland
Residence Milpitas, California Citizenship US
Post Office Address 1209 Eagle Ridge Way
Milpitas, California 95035-7817

Inventor's signature _____ Date _____
Full name of inventor Janet L. Dolphin-Peterson
Residence Belvedere, California Citizenship US
Post Office Address 296 Beach Road
Belvedere, California 94920-2472

Inventor's signature Thomas K. Rowland Date 12-18-97
Full name of inventor Thomas K. Rowland
Residence Los Gatos, California Citizenship US
Post Office Address P.O. Box 33157
Los Gatos, California 95031-3157

Inventor's signature Kirk W. Skeba Date 12/23/97
Full name of inventor Kirk W. Skeba
Residence Fremont, California Citizenship US
Post Office Address 400 Calistoga Circle
Fremont, California 94536-7620

Inventor's signature Russell D. Housley Date 20 Aug 1997
Full name of inventor Russell D. Housley
Residence Herndon, Virginia Citizenship US
Post Office Address 918 Spring Knoll Drive
Herndon, Virginia

01/12/98
135-11-1
PT

I hereby appoint the following attorney, with full power of substitution, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith: David R. Graham, Reg. No. 36,150.

Please address all correspondence regarding this application to David R. Graham, 1337 Chewpon Avenue, Milpitas, California 95035.

Please direct all telephone calls regarding this application to David R. Graham at telephone number (408) 945-9912.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's signature _____ Date _____
Full name of inventor William P. Bialick
Residence Clarksville, Maryland Citizenship US
Post Office Address 7150 Moorland Drive
Clarksville, Maryland 21029-1735

Inventor's signature *Mark J. Sutherland* Date 18 Dec 97
Full name of inventor Mark J. Sutherland
Residence Milpitas, California Citizenship US
Post Office Address 1209 Eagle Ridge Way
Milpitas, California 95035-7817

Inventor's signature *J. L. Dolph* Date 20-DEC-97
Full name of inventor Jane L. Dolphin-Peterson
Residence Belvedere, California Citizenship US
Post Office Address 296 Beach Road
Belvedere, California 94920-2472

Inventor's signature *Thomas K. Rowland* Date 12-18-97
Full name of inventor Thomas K. Rowland
Residence Los Gatos, California Citizenship US
Post Office Address P.O. Box 33157
Los Gatos, California 95031-3157

Inventor's signature _____ Date _____
Full name of inventor Kirk W. Skeba
Residence Fremont, California Citizenship US
Post Office Address 400 Calistoga Circle
Fremont, California 94536-7620

Inventor's signature *Russell D. Housley* Date 20 Aug 1997
Full name of inventor Russell D. Housley
Residence Herndon, Virginia Citizenship US
Post Office Address 918 Spring Knoll Drive
Herndon, Virginia

BEST COPY

1351c U.S. PTO
01/12/98



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

#3

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
00/869,305	02/04/97	BHELICK	W SPY-004

0292/1104

DAVID R GRAHAM
1337 CHEWTON AVENUE
MILPITAS CA 95035

NOT ASSIGNED

DATE MAILED:

2203

11/04/97

NOTICE TO FILE MISSING PARTS OF APPLICATION
Filing Date Granted

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted ALONG WITH THE PAYMENT OF A SURCHARGE for items 1 and 3-8 only of \$ 100 for a large entity small entity in compliance with 37 CFR 1.27. The surcharge is set forth in 37 CFR 1.16(a). Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

If all required items on this form are filed within the period set above, the total amount owed by applicant as a large entity small entity (verified statement filed), is \$ 199.2.

1. The statutory basic filing fee is:
- missing.
 - insufficient.

Applicant must submit \$ 140 to complete the basic filing fee and/or file a verified small entity statement claiming such status (37 CFR 1.27).

2. Additional claim fees of \$ 100.2, including any multiple dependent claim fees, are required. Applicant must either submit the additional claim fees or cancel additional claims for which fees are due.

3. The oath or declaration:
- is missing.
 - does not cover the newly submitted items.
 - does not identify the application to which it applies.
 - does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.

4. The signature(s) to the oath or declaration is/are:
- missing.
 - by a person other than inventor or person qualified under 37 CFR 1.42, 1.43, or 1.47.
- A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

- 6. A \$ _____ processing fee is required since your check was returned without payment (37 CFR 1.21(m)).
- 7. Your filing receipt was mailed in error because your check was returned without payment.
- 8. The application does not comply with the Sequence Rules.
See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."
- 9. OTHER:

Direct the response and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the response.

Customer Service Center
Initial Patent Examination Division (703) 308-1202

FORM PTO-1533 (REV 7-90) 0000020 088693
PART 2 - COPY TO BE RETURNED WITH RESPONSE

U.S. GPO: 1996-404-486/40515

DC 199 01 02 DC 205 65.00 0P



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security
Functionality
Serial No.: 08/869,305 Filed: June 4, 1997
Examiner: Unknown Group Art Unit: Unknown
Attorney Docket No.: SPY-004

San Jose, California

Assistant Commissioner for Patents
Washington, D. C. 20231

VERIFIED STATEMENT UNDER 37 CFR 1.9(f) AND 1.27(c)
CLAIMING SMALL ENTITY STATUS BY ASSIGNEE

Sir:

I declare that I am an official empowered to act on behalf of the concern identified above as assignee.

Exclusive rights to the above invention as described in U.S. patent application Serial No. 08/869,305, filed June 4, 1995 have been conveyed to and remain with the above concern.

For purposes of paying reduced fees under Section 41 of Title 35 of the United States Code with regard to this invention, I declare that the above concern qualifies as a small business concern as defined in 13 CFR 121.12 and reproduced in 37 CFR 1.9(d), namely, the concern's number of employees, including those of its affiliates, does not exceed 500 persons and the concern has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

I acknowledge my duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate per 37 CFR 1.28(b).

I further declare that all statements made herein of my own knowledge are true, that all statements made on information and belief are believed to be true, that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application, or any patent issued thereon.

Signature: Kevin O'Neill Date: November 25, 1997
Official's Name: Kevin O'Neill, Esq.
Official's Title: Corporate Secretary
Concern's Name: Spyrus, Inc.
Concern's Address: 2460 North First Street, Suite 100
San Jose, CA 95131



GP2202

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
 Assignee: Spyrus, Inc.
 Title: Peripheral Device With Integrated Security Functionality
 Serial No.: 08/869,305 Filed: June 4, 1997
 Examiner: Unknown Group Art Unit: 2202
 Attorney Docket No.: SPY-004

FFJ
Bill
11-23-98

RECEIVED

OCT 13 1998

GROUP 2100

Milpitas, California
October 6, 1998

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT
WITH CERTIFICATION UNDER 37 C.F.R. §1.97(e)(1)

Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, Applicants bring the documents (copies enclosed) listed on the enclosed Form PTO-1449 to the Examiner's attention in the above-identified application. These documents were cited by the European Patent Office in the International Search Report (copy enclosed) for the corresponding PCT Application No. PCT/US98/11052.

Citation of these documents shall not be construed as an admission that the documents are necessarily prior art with respect to the instant invention. Also, citation of these documents shall not be construed as an admission that the information disclosed therein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The undersigned hereby certifies in accordance with 37 C.F.R. §1.97(e)(1) that each item of information

RECEIVED
98 OCT 15 AM 8:52
GROUP 2700

contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on October 6, 1998.

10-6-98
Date

David R. Graham
Signature

Respectfully submitted
and certified by,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants

part of # 4

SHEET 1 OF 1

U.S. DEPT OF COMMERCE - PATENT AND TRADEMARK OFFICE		ATTORNEY DOCKET NO.: SPY-004		SERIAL NO.: 08/869,305		
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		APPLICANTS: William P. Bialick et al.		FILING DATE: June 4, 1997		
		GROUP ART UNIT: 2202				
PATENTS						
EXAMINER'S INITIALS	PATENT NUMBER	ISSUE DATE	INVENTOR(S)	CLASS	SUB-CLASS	FILING DATE
<i>RNL</i>	5,548,721	8/20/96	Denslow	395	187.01	4/28/94
<i>RNL</i>	5,457,590	10/10/95	Barrett et al.	360	133	6/11/91
<i>RNL</i>	5,630,174	5/13/97	Stone, III et al.	395	883	2/3/95
<i>RNL</i>	4,910,776	3/20/90	Dyke	380	25	2/24/89
RECEIVED OCT 15 1998 GROUP 2100						
FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	DOCUMENT NUMBER	PUBLICATION DATE	NAME(S)	COUNTRY	TRANSLATION?	
					YES	NO
<i>RNL</i>	WO 97/29416	8/14/97	Mooney et al.	PCT	X	
<i>RNL</i>	WO 82/03286	9/30/82	Lofberg	PCT	X	
COMMONLY OWNED, CO-PENDING U.S. PATENT APPLICATIONS						
EXAMINER'S INITIALS	SERIAL NUMBER	ATTORNEY DOCKET NO.	APPLICANT(S)	CLASS	SUB-CLASS	FILING DATE
OTHER DOCUMENTS						
EXAMINER'S INITIALS	AUTHOR(S), TITLE, DATE, PERTINENT PAGES, ETC.					
EXAMINER: <i>Ly V. Hua</i>	DATE CONSIDERED: <i>11/23/98</i>					
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

Transaction History Date 1998-12-11
Date information retrieved from USPTO Patent
Application Information Retrieval (PAIR)
system records at www.uspto.gov

BEST COPY



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
857889, INC.	12/11/98	DAVID R. GRAHAM	1003-0099

DAVID R. GRAHAM
1037 CHRYSLER AVENUE
MILPITAS, CA 95035

12/11/98

EXAMINER

HUA, L.

ART UNIT	PAPER NUMBER
2705	6

DATE MAILED: 12/11/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

DE/869,305

Office Action Summary		Application No.	Applicant(s)
		Examiner	Group Art Unit
—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—			
Period for Response			
A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE <u>three</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.			
<ul style="list-style-type: none">- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).			
Status			
<input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>October 8, 1998</u> .			
<input type="checkbox"/> This action is FINAL.			
<input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 1 1; 453 O.G. 213.			
Disposition of Claims			
<input checked="" type="checkbox"/> Claim(s) <u>1-32</u> is/are pending in the application.			
Of the above claim(s) _____ is/are withdrawn from consideration.			
<input type="checkbox"/> Claim(s) _____ is/are allowed.			
<input type="checkbox"/> Claim(s) <u>1, 8, 14, 4, 11, 17, 32, 31, 28, 29, 30 and 24-26</u> is/are rejected.			
<input type="checkbox"/> Claim(s) <u>6, 7 and 13</u> is/are objected to.			
<input checked="" type="checkbox"/> Claim(s) <u>2, 3, 5, 20, 9, 10, 12, 15, 16, 18, 19, 21-23 and 27</u> are subject to restriction or election requirement.			
Application Papers			
<input type="checkbox"/> See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.			
<input type="checkbox"/> The proposed drawing correction, filed on _____ is <input type="checkbox"/> approved <input type="checkbox"/> disapproved.			
<input type="checkbox"/> The drawing(s) filed on _____ is/are objected to by the Examiner.			
<input type="checkbox"/> The specification is objected to by the Examiner.			
<input type="checkbox"/> The oath or declaration is objected to by the Examiner.			
Priority under 35 U.S.C. § 119 (a)-(d)			
<input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).			
<input type="checkbox"/> All <input type="checkbox"/> Some* <input type="checkbox"/> None of the CERTIFIED copies of the priority documents have been received.			
<input type="checkbox"/> received in Application No. (Series Code/Serial Number) _____			
<input type="checkbox"/> received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).			
*Certified copies not received: _____			
Attachment(s)			
<input checked="" type="checkbox"/> Information Disclosure Statement(s), PTO-1449, Paper No(s) <u>5. cancel 4</u>			
<input type="checkbox"/> Interview Summary, PTO-413			
<input checked="" type="checkbox"/> Notice of References Cited, PTO-892			
<input type="checkbox"/> Notice of Informal Patent Application, PTO-152			
<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review, PTO-948			
<input type="checkbox"/> Other _____			

Office Action Summary

Application/Control Number: 08/869,305
Art Unit: 2785

Page 2

1. This application contains claims directed to the following patentably distinct species of the claimed invention: first, second, third, fourth species of target means.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Currently, the target means is generic.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Mr. Vavid R. Graham (Reg. No. 36160) on November 6, 1998, a provisional election was made with traverse to prosecute the invention of the first species, claims 1, 4, 6, 7, 8, 11, 13, 14, 17, 24-26, 28, 29, 30, 31 and 32. Affirmation of this election must be made by applicant in responding to this Office action. Claims 2, 3, 5, 20, 9, 10, 12, 15, 16, 18, 19-20, 21-

23 and 27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Novis et al (5,770,849 hereinafter Novis).

a. As per claim 24:

Novis teaches a peripheral device [10], comprising:

- (1) security means [86] ~~for enabling one or more security operations to be performed on data~~ ;
- (2) a biometric device [14 (col. 3, lines 36-44; col. 9, lines 28-30)] ~~for receiving input data regarding a physical characteristic of a person based upon a physical interaction of the person with the peripheral device;~~

(3) means [16] for enabling communication between

(a) the security means [86] and

(h) the biometric device [14],

[which communication is for transferring captured user characteristic from biometric 14 to the security means 86 for authentication thereat (col. 9, lines 26-37) ; and

(4) means [95] for enabling communication with a host computing device [96].

b. As per claim 25 or 26:

Novis teaches that his biometric device comprises either:

(1) a fingerprint scanning device [in order to input biometric identifier such as a finger print (col. 3, lines 37-40)] or

(2) a retinal scanning device [in order to input biometric identifier such as a retinal scan (col. 3, lines 37-40)].

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Novis et al (5,770,849 her

a. As per claims 1, 8, and 14:

i. Novis teaches a peripheral device, comprising:

- (1) security means [86] for enabling one or more security operations to be performed on data;
- (2) target means [14 (col. 3, lines 36-44, col. 9, lines 28-30) for capturing biometric input] for enabling a defined interaction with a host computing device;
- (3) means [16] for enabling communication between
 - (a) the security means and
 - (b) the target means ,[which communication is for transferring captured user characteristic from biometric 14 to the security means 86 for authentication thereat (col. 9, lines 26-37);
- (4) means [95] for enabling communication with a host computing device [96].

ii. Applicant's admitted prior art teaches:

(1) ~~means [inherent in the host computing device 201 of Fig. 2] for operably connecting~~

(a) [either] the security means [86] and/or the target means [14] to

(b) the host computing device [96]

~~in response to an instruction from the host computing device.~~

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to maintain, (even when the security device 203 and the target device 202 of applicant's admitted art are implemented in a single unit), the ~~means [inherent in the host computing device 201 of Fig. 2] for operably connecting~~

(a) [either] the security means [86] and/or the target means [14] to

(b) the host computing device [96]

~~in response to an instruction from the host computing device.~~

iv. This is because the admitted prior works fine.

b. As per claim 4, 11 or 17:

Novis teaches that his target means 14 comprises a biometric device [col. 3, lines 41-44].

c. As per claims 32 and 31:

These claims do not teach or cover more than those which are covered by claims 1, 8 and 14 and thus are similarly rejected with the same rationale applied thereto.

d. As per claims 28, 29 and 30:

Application/Control Number: 08/869,305
Art Unit: 2785

Page 7

Using the above rejected claims 1, 8 and 14 with a host computer device would have been obvious to a person of ordinary skill in the art. This is because peripheral devices are to be use with host device.

9. Claims 6, 7, and 13 are objected to as they depend on rejected claims.
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
11. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

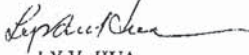
(703)305-9724 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ly Hua whose telephone number is (703) 305-9684. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Robert W. Beausoliel, Jr., can be reached on (703) 305-9713. The fax phone number for this Group is (703) 305-9724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.


LY V. HUA
PATENT EXAMINER
ART UNIT 2785

L. Hua
November 20, 1998

Notice of References Cited

Application No. DS/869,305 Applicant(s) BIALICK ET AL
 Examiner Ly Hua Group Art Unit 2785 Page 1 of 1

U.S. PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
A	5,770,849	6/98	NOVIS ET AL.	235	492
B	5,473,692	12/95	DAVIS	380	25
C	5,546,463	8/96	CAPUTO ET AL.	380	25
D	5,282,247	1/94	MCLEAN ET AL.	380	4
E	5,191,611	3/93	LANG	380	25
F	5,537,544	7/96	MORISAWA ET AL.	395	188.01
G	5,742,683	4/98	LEE ET AL.	380	23
H	5,491,927	2/96	HOLTEY	395	800
I	5,442,704	8/95	HOLTEY	380	23
J					
K					
L					
M					

FOREIGN PATENT DOCUMENTS

*	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N						
O						
P						
Q						
R						
S						
T						

NON-PATENT DOCUMENTS

*	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
U		
V		
W		
X		

* A copy of this reference is not being furnished with this Office action.
 (See Manual of Patent Examining Procedure, Section 707.05(a).)

Transaction History Date 1999-03-15
Date information retrieved from USPTO Patent
Application Information Retrieval (PAIR)
system records at www.uspto.gov



GAU 2785#

Attorney Docket No.: SPY-004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

March 11, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

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Group 2700

Re: Applicants: William P. Bjalick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security
Functionality
Serial No.: 08/869,305
Filed: June 4, 1997
Examiner: L. Hua
Group Art Unit: 2785

Transmitted herewith are the following documents in the above-
identified application:

- (1) Response to Office Action (16 pages);
- (2) Check for \$63.00 (Check No. 1385);
- (3) Return receipt postcard; and
- (4) This sheet in duplicate.

The fee is calculated as follows (small entity status is claimed):

CLAIMS AS AMENDED

	Claims After Amendment	Highest Number Paid For	Additional Claims	Rate	Fee
Total Claims:	39	- 32	= 7	X \$9	= \$ 63.00
Independent Claims:	8	- 12	= 0	X \$38	= \$ 0.00
___ First filing of one or more multiple dependent claims (\$270 total fee)					\$ 0.00
___ Fee for Petition for Extension of Time (___ months)					\$ 0.00
TOTAL FEE:					\$ 63.00

I hereby certify that this correspondence is being
deposited with the United States Postal Service as
first class mail in an envelope addressed to:
Assistant Commissioner for Patents, Washington,
D.C. 20231, on March 11, 1999.

3-11-99 David R. Graham
Date Signature

Respectfully submitted,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants
1337 Chewpon Ave.
Milpitas, CA 95035
Tel. No.: (408) 945-9912

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security
Functionality
Serial No.: 0869,305 Filed: June 4, 1997
Examiner: L. Hua Group Art Unit: 2785
Attorney Docket No.: SPY-004

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Griffin 2700



Milpitas, California
March 11, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

RESPONSE TO OFFICE ACTION

Sir:

Please enter the following response to the Office Action
dated December 11, 1998, in the above-identified application.

IN THE SPECIFICATION

At page 5, line 19, delete "or" and substitute --,--;
line 20, after "device" (first occurrence),
insert --for input to the peripheral
device by a person--.

At page 8, line 4, delete "computational" and substitute
--computing--;
line 5, delete "computational" and substitute
--computing--;

03/17/1999 RHN:GAY 00000045 0869305
01 P:203 63.00 DP

line 10, delete "another" and substitute --the peripheral--;

after "device" (second occurrence),
insert --302--;

line 11, delete "another" and substitute --the peripheral--;

after "device" (first occurrence),
insert --302--.

At page 9, line 22, delete "3A" and substitute --3B--.

At page 13, line 5, delete "an".

At page 14, line 32, after ")", insert --to enable

performance of security operations--.

At page 16, line 21, delete "colloquially" and substitute --informally--.

At page 20, line 31, delete "implemented" and substitute --operated--.

At page 22, line 9, delete "This" and substitute --The--;

line 18, delete "peripheral" and substitute --target--;

line 30, after "device.", insert --(Of course, in this case, security functionality, i.e., user authentication, is used as part of the step 715)--.

At page 24, line 18, after "below", insert --(see FIGS. 8, 9A and 9B)--.

At page 28, line 13, delete "be";
after "also", insert --be--;
line 18, delete "with" and substitute
--to provide--.

At page 29, line 5, after "806", insert --,--.

At page 33, line 7, delete "a" (first occurrence) and
substitute --the--.

At page 34, line 18, delete "peripheral".

IN THE CLAIMS

Please cancel Claims 1, 19, 21, 24, 27 and 28.

Please amend the claims as follows:

2. (Amended) A peripheral device as in Claim [1] ¹/₂,
wherein the target means comprises means for non-volatilely
storing data.

3. (Amended) A peripheral device as in Claim [1] ¹/₂,
wherein the target means comprises means for enabling
communication between the host computing device and a remote
device.

4. (Amended) A peripheral device as in Claim [1] ¹/₂,
wherein the target means comprises a biometric device.

5. (Amended) A peripheral device as in Claim 1) ¹/_g,
wherein the target means comprises means for communicating with a
smart card.

1 ¹/_g. (Amended) A peripheral device [as in Claim 1],
[further] comprising:

security means for enabling one or more security
operations to be performed on data;

target means for enabling a defined interaction with a
host computing device;

means for enabling communication between the security
means and the target means;

means for enabling communication with a host computing
device;

means for operably connecting the security means and/or
the target means to the host computing device in response to
an instruction from the host computing device; and

means for mediating communication of data between the
host computing device and the target means so that the
communicated data must first pass through the security
means.

1 ¹/_g. (Amended) A peripheral device [as in Claim 1],
[further] comprising:

security means for enabling one or more security
operations to be performed on data;

target means for enabling a defined interaction with a host computing device;

means for enabling communication between the security means and the target means;

means for enabling communication with a host computing device;

means for operably connecting the security means and/or the target means to the host computing device in response to an instruction from the host computing device; and

means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the target means [for enabling a defined interaction with a host computing device].

A4

Sub B'
A3

~~13. (Amended) A peripheral device as in Claim 8, further comprising means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the target means [for enabling a defined interaction with a host computing device].~~

24. (Amended) A peripheral device, comprising:
security means for enabling one or more security operations to be performed on data;

45

target means for enabling a defined interaction with a host computing device;

means for enabling communication between the security means and the target means;

means for enabling communication with a host computing device; and

A⁵

means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the target means [for enabling a defined interaction with a host computing device].

A⁴

¹⁴~~20~~. (Amended) A peripheral device as in Claim [1] ¹⁵~~21~~, wherein the solid-state disk storage device comprises an ATA format flash disk drive.

A⁷

¹⁷~~22~~. (Amended) A peripheral device as in Claim [21] ^{36 16}~~28~~, wherein the wireless communication means comprises a wireless modem.

¹⁸~~23~~. (Amended) A peripheral device as in Claim [21] ¹⁶~~28~~, wherein the wireless communication means comprises a wireless LAN transceiver.

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²⁰~~20~~. (Amended) A peripheral device as in Claim [24] ¹⁹~~21~~,
wherein the biometric device comprises a fingerprint scanning
device.

²¹~~20~~. (Amended) A peripheral device as in Claim [24] ¹⁹~~21~~,
wherein the biometric device comprises a retinal scanning device.

³⁷~~20~~. (Amended) A data security system, comprising:
a host computing device including one or more device
interfaces adapted to enable communication with another
device;
a peripheral device, comprising:
security means for enabling one or more security
operations to be performed on data;
target means for enabling a defined interaction
with a host computing device; and
means for enabling communication between the
security means and the target means;
means for enabling communication with a host
computing device; and
means for providing to a host computing device, in
response to a request from the host computing device
for information regarding the type of the peripheral
device, information regarding the function of the
target means [for enabling a defined interaction with a
host computing device].

3932. (Amended) For use in a peripheral device adapted for communication with a host computing device, performance of one or more security operations on data, and interaction with a host computing device in a defined way, a method comprising the steps of:

A10

communicating with the [receiving an instruction from a] host computing device to exchange data between the host computing device and [regarding operation of] the peripheral device; [and]

[performng] performing one or more security operations and the defined interaction [in response to the instruction from the host computing device] on the exchanged data; and
mediating communication of the exchanged data between the host computing device and the peripheral device so that the exchanged data must first pass through means for performing the one or more security operations.

Please enter the following new claims:

A11

735. (New) A peripheral device as in Claim ⁶7, wherein the target means comprises means for non-volatilely storing data.

834. (New) A peripheral device as in Claim ⁶7, wherein the target means comprises means for enabling communication between the host computing device and a remote device.

935. (New) A peripheral device as in Claim ⁶7, wherein the target means comprises a biometric device.

¹⁰₃₆. (New) A peripheral device as in Claim ⁶₇, wherein the target means comprises means for communicating with a smart card.

¹³₃₇. (New) A peripheral device as in Claim ¹²₈, wherein the means for non-volatilely storing data further comprises a solid-state disk storage device.

¹⁶₃₈. (New) A peripheral device as in Claim ¹⁵₁₀, wherein the means for enabling communication between the host computing device and a remote device further comprises wireless communication means.

²⁰₃₉. (New) A peripheral device as in Claim ²⁵₁₅, wherein the means for non-volatilely storing data further comprises a solid-state disk storage device.

²⁷₄₀. (New) A peripheral device as in Claim ²⁶₃₉, wherein the solid-state disk storage device comprises an ATA format flash disk drive.

²⁹₄₁. (New) A peripheral device as in Claim ²⁸₁₆, wherein the means for enabling communication between the host computing device and a remote device further comprises wireless communication means.

³⁰₄₂. (New) A peripheral device as in Claim ²⁹₄₁, wherein the wireless communication means comprises a wireless modem.

31²⁹ 43. (New) A peripheral device as in Claim 41, wherein the wireless communication means comprises a wireless LAN transceiver.

A¹¹ 33³² 44. (New) A peripheral device as in Claim 47, wherein the biometric device comprises a fingerprint scanning device.

34³² 45. (New) A peripheral device as in Claim 47, wherein the biometric device comprises a retinal scanning device.

IN THE ABSTRACT

Line 17, delete "or" and substitute --,--.

Line 18, after "device" (second occurrence), insert --or

A¹² input to the peripheral device by a person--.

Line 26, delete "," (third occurrence).

Line 27, delete "as described further below".

REMARKS

Claims 1-32 were filed and are pending. Claims 2, 3, 5, 9, 10, 12, 15, 16, 18-23 and 27 were not examined, since directed to species that were not provisionally elected for examination by the Examiner. Claims 24-26 were rejected under 35 U.S.C. § 102. Claims 1, 4, 8, 11, 14, 17 and 28-32 were rejected under 35 U.S.C. § 103. Claims 6, 7 and 13 were objected to as dependent on a rejected claim. Claims 1, 19, 21, 24, 27 and 28 have been canceled. Claims 2-7, 13, 14, 20, 22, 23, 25, 26, 30 and 32 have been amended. Claims 33-45 have been added.

Reconsideration and allowance of Claims 2-18, 20, 22, 23, 25, 26, 29-32, and allowance of Claims 33-45 is requested.

In the Office Action, the Examiner stated:

This application contains claims directed to the following patentably distinct species of the claimed invention: first, second, third, fourth species of target means.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, the target means is generic.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Mr. [D]avid R. Graham (Reg. No. 36,160 [sic]) on November 6, 1998, a provisional election was made with traverse to prosecute the invention of the first species, claims, 1, 4, 6, 7, 8, 11, 13, 14, 17, 24-26, 28, 29, 30, 31 and 32. Affirmation of this election must be made by applicant in responding to this Office action. Claims 2, 3, 5, 20, 9, 10, 12, 15, 16, 18, 19-20, 21-23 and 27

are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicants confirm the provisional election to prosecute the invention of the first species (i.e., the species in which the target means can be embodied by a biometric device), originally pending claims 1, 4, 6-8, 11, 13, 14, 17, 24-26 and 28-32 readable thereon. Applicants have added Claims 33-45. Claims 35, 44 and 45 are also readable on the invention of the elected first species. Claims 33, 37, 39 and 40 are readable on the invention of the species in which the target means can be embodied by means for non-volatilely storing data. Claims 34, 38 and 41-43 are readable on the invention of the species in which the target means can be embodied by means for enabling communication between the host computing device and a remote device. Claim 36 is readable on the invention of the species in which the target means can be embodied by means for communicating with a smart card.

However, in view of the above amendments and the remarks below, Applicants contend that all pending claims, including those readable on non-elected species, are either an allowable generic claim (i.e., Claims 6, 7, 8, 13, 14 and 29-32) or are dependent on an allowable generic claim (i.e., Claims 2-5, 9-12, 15-18, 20, 22, 23, 25, 26 and 33-45).

The Examiner further stated in the Office Action that "Claims 6, 7, and 13 are objected to as they depend on rejected claims," i.e., Claims 6, 7 and 13 would be allowable if rewritten in independent form to include the limitations of the base claim

and any intervening claims. Claims 6, 7 and 13 have been rewritten in this manner and are therefore in condition for allowance. (Claims 7 and 13 have also been amended to simplify a recitation of the target means.) Further, Claims 2-5 have each been amended to depend upon Claim 6 and are therefore allowable as dependent on an allowable claim. Additionally, new Claims 33-36 each depend upon Claim 7 and are therefore allowable as dependent on an allowable claim.

Before amendment, Claim 6 recited "[a] peripheral device as in Claim 1, further comprising means for mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means" (emphasis added). Since Claim 1 was rejected under 35 U.S.C. § 103 as unpatentable over Novis et al., the above-emphasized recitation in Claim 6 is apparently the basis for allowability of Claim 6. Claims 8 and 29 were also rejected under 35 U.S.C. § 103 as unpatentable over Novis et al. However, Claims 8 and 29, like Claim 6, recite "means for mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means." Therefore, Applicants submit that Claims 8 and 29, like Claim 6, are allowable. Further, Claims 9-12, which each depend upon Claim 8, are therefore allowable as dependent on an allowable claim. Additionally, Claims 20, 22, 23, 25 and 26, which have been amended so that each depends either directly or indirectly upon one of Claims 9-11, are also allowable as dependent on an allowable claim. Similarly, new

Claims 37 and 38, which depend upon Claims 9 and 10, respectively, are allowable as dependent on an allowable claim.

Before amendment, Claim 7 recited "[a] peripheral device as in Claim 1, further comprising means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the means for enabling a defined interaction with a host computing device" (emphasis added). Since Claim 1 was rejected under 35 U.S.C. § 103 as unpatentable over Novis et al., the above-emphasized recitation in Claim 7 is apparently the basis for allowability of Claim 7. Claims 14 and 30 were also rejected under 35 U.S.C. § 103 as unpatentable over Novis et al. However, before amendment, Claims 14 and 30, like Claim 7, recited "means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the means for enabling a defined interaction with a host computing device." (Claims 14 and 30 have been amended, like Claim 7, to simplify a recitation of the target means.) Therefore, Applicants submit that Claims 14 and 30, like Claim 7, are allowable. Further, Claims 15-18, which each depend upon Claim 14, are therefore allowable as dependent on an allowable claim. Additionally, new Claims 39-45, which each depend upon one of Claims 15-17 either directly or indirectly, are also allowable as dependent on an allowable claim.

Claim 31 recites "[f]or use in a peripheral device adapted for communication with a host computing device, performance of one or more security operations on data, and interaction with a host computing device in a defined way, a method comprising the steps of: receiving a request from a host computing device for information regarding the type of the peripheral device; and providing to the host computing device, in response to the request, information regarding the type of the defined interaction (emphasis added). The above-emphasized part of Claim 31 recites functionality similar to that of allowable Claims 7, 13, 14 and 30. Therefore, Applicants submit that Claim 31 is allowable.

As amended, Claim 32 recites "[f]or use in a peripheral device adapted for communication with a host computing device, performance of one or more security operations on data, and interaction with a host computing device in a defined way, a method comprising the steps of: communicating with the host computing device to exchange data between the host computing device and the peripheral device; performing one or more security operations and the defined interaction on the exchanged data; and mediating communication of the exchanged data between the host computing device and the peripheral device so that the exchanged data must first pass through means for performing the one or more security operations" (emphasis added). The above-emphasized part of Claim 32 recites functionality similar to that of allowable Claims 6, 8 and 29. Therefore, Applicants submit that Claim 32 is allowable.

Claims 1, 19, 21, 24, 27 and 28 have been canceled, thereby obviating the rejections of those claims.

In view of the foregoing, Applicants submit that Claims 2-18, 20, 22, 23, 25, 26 and 29-41 are in condition for allowance.

CONCLUSION

Claims 1-32 were pending. Claims 2, 3, 5, 9, 10, 12, 15, 16, 18-23 and 27 were not examined, since directed to species that were not provisionally elected for examination by the Examiner. Claims 1, 4, 8, 11, 14, 17, 24-26 and 28-32 were rejected. Claims 6, 7 and 13 were objected to. Claims 1, 19, 21, 24, 27 and 28 have been canceled. Claims 2-7, 13, 14, 20, 22, 23, 25, 26, 30 and 32 have been amended. Claims 33-45 have been added. In view of the foregoing, it is requested that Claims 2-18, 20, 22, 23, 25, 26 and 29-45 be allowed. If the Examiner wishes to discuss any aspect of this application, the Examiner is invited to telephone Applicants' undersigned attorney at (408) 945-9912.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on March 11, 1999.

3-11-99 David R. Graham
Date Signature

Respectfully submitted,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants



Hua 8/869,305

642285

Attorney Docket No.: SPY-004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

March 12, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

Re: Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security
Functionality
Serial No.: 08/869,305
Filed: June 4, 1997
Examiner: L. Hua
Group Art Unit: 2785

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Group 2700

A

Transmitted herewith are the following documents in the above-identified application:

- (1) Supplemental Response to Office Action (3 pages); and
- (2) Return receipt postcard.

The fee is calculated as follows (small entity status is claimed):

CLAIMS AS AMENDED

	Claims After Amendment	Highest Number Paid For	Additional Claims	Rate	Fee
Total Claims:	39	- 39	= 0	X \$9	= \$ 0.00
Independent Claims:	9	- 12	= 0	X \$38	= \$ 0.00
___ First filing of one or more multiple dependent claims (\$270 total fee)					\$ 0.00
___ Fee for Petition for Extension of Time (___ months)					\$ 0.00
TOTAL FEE:					\$ 0.00

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on March 12, 1999.

3-12-99 *David R. Graham*
Date Signature

Respectfully submitted,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants
1337 Chewpon Ave.
Milpitas, CA 95035
Tel. No.: (408) 945-9912



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security Functionality
Serial No.: 08/869,305 Filed: June 4, 1997
Examiner: L. Hua Group Art Unit: 2785
Attorney Docket No.: SPY-004

#8/B
Hua
4/1/99

Milpitas, California
March 12, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

Wb
4/1/99

SUPPLEMENTAL RESPONSE TO OFFICE ACTION

Sir:

Please enter the following supplemental response to the Office Action dated December 11, 1998, in the above-identified application. A Response to Office Action was previously submitted by Applicants on March 11, 1999 (hereinafter, the "previous Office Action response"), responding to that Office Action.

IN THE CLAIMS

Please amend the claims as follows:

B¹

2ys. (Twice Amended) A peripheral device [as in Claim 8],
[further] comprising:
security means for enabling one or more security
operations to be performed on data:

target means for enabling a defined interaction with a host computing device;

means for enabling communication between the security means and the target means;

means for enabling communication with a host computing device;

means for mediating communication of data between the host computing device and the target means so that the communicated data must first pass through the security means; and

means for providing to a host computing device, in response to a request from the host computing device for information regarding the type of the peripheral device, information regarding the function of the target means.

REMARKS

In the previous Office Action response, Applicants stated that Claim 13 had been rewritten in independent form to include the limitations of the base claim and any intervening claims and was, therefore, in condition for allowance. However, Claim 13 was inadvertently not amended in that way in the previous Office Action response. Claim 13 has been amended herein as indicated above.

Claims 2-18, 20, 22, 23, 25, 26 and 29-45 are pending.
Allowance of Claims 2-18, 20, 22, 23, 25, 26 and 29-45 is
requested. If the Examiner wishes to discuss any aspect of this
application, the Examiner is invited to telephone Applicants'
undersigned attorney at (408) 945-9912.

I hereby certify that this correspondence is being
deposited with the United States Postal Service as
first class mail in an envelope addressed to:
Assistant Commissioner for Patents, Washington,
D.C. 20231, on March 12, 1999.

3-12-99 David R. Graham
Date Signature

Respectfully submitted,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

2785

Applicants: William P. Bialick et al.

Assignee: Spyrus, Inc.

Title: Peripheral Device With Integrated Security
Functionality

Serial NO.: 08/869,305 Filed: June 4, 1997

Examiner: L. Hua Group Art Unit: 2785

Attorney Docket NO.: SPY 004

#9
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APR 05 1999

Group 2700

Milpitas, California
March 24, 1999

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT
WITH CERTIFICATION UNDER 37 C.F.R. § 1.97(e) (2)

Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, Applicants bring the documents (copies enclosed) listed on the enclosed Form PTO-1449 to the Examiner's attention in the above-identified application. Citation of these documents shall not be construed as an admission that the documents are necessarily prior art with respect to the instant invention. Also, citation of these documents shall not be construed as an admission that the information disclosed therein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The undersigned hereby certifies in accordance with 37 CFR § 1.97(e) (2) that no item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application

or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this information disclosure statement.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on March 24, 1999.

3-24-99
Date


David R. Graham
Signature

Respectfully submitted,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants

part of # 9

SHEET 1 OF 1

U.S. DEPT OF COMMERCE - PATENT AND TRADEMARK OFFICE		ATTORNEY DOCKET NO.: SPY-004	SERIAL NO.: 08/869,305			
INFORMATION DISCLOSURE CITATION		APPLICANTS: William P. Bielick et al.				
(Use several sheets if necessary)		FILING DATE: June 4, 1997	GROUP ART UNIT: 2785			
U.S. PATENTS						
EXAMINER'S INITIALS	PATENT NUMBER	ISSUE DATE	INVENTOR(S)	CLASS	SUB-CLASS	FILING DATE
VW	5,694,335	12/2/97	Hollenberg	364	514	3/12/96
BTM	5,297,206	3/22/94	Orton	380	30	10/7/93
						RECEIVED APR 05 1999 Group 2700
FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	DOCUMENT NUMBER	PUBLICATION DATE	NAME(S)	COUNTRY	TRANSLATION?	
					YES	NO
COMMONLY OWNED, CO-PENDING U.S. PATENT APPLICATIONS						
EXAMINER'S INITIALS	SERIAL NUMBER	ATTORNEY DOCKET NO.	APPLICANT(S)	CLASS	SUB-CLASS	FILING DATE
OTHER DOCUMENTS						
EXAMINER'S INITIALS	AUTHOR(S), TITLE, DATE, PERTINENT PAGES, ETC.					
EXAMINER: Ly U. Hwa	DATE CONSIDERED: 6/2/1999					
<small>Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.</small>						

BEST COPY

08/869,305



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
--------------------	-------------	-----------------------	---------------------

08/869.305 06/04/97 BIALICK

EXAMINER SPY-004

LM21/0607

DAVID R GRAHAM
1337 CHEWON AVENUE
MILPITAS CA 95035

ART UNIT	PAPER NUMBER
HUA, L	10

DATE MAILED: 2/85

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

06/07/99

NOTICE OF ALLOWABILITY

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

- This communication is responsive to Applicant's correspondence filed on March 15, 18, 31, 1999
- The allowed claim(s) is/are 2-18, 20, 22, 23, 25, 26, and 29-45
- The drawings filed on _____ are acceptable.
- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - All Some* None of the CERTIFIED copies of the priority documents have been received.
 - received in Application No. (Series Code/Serial Number) _____
 - received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
- Applicant MUST submit NEW FORMAL DRAWINGS
 - because the originally filed drawings were declared by applicant to be informal.
 - including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____
 - including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.
 - including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftperson.

- Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s) 9
- Notice of Draftperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152
- Interview Summary, PTO-413
- Examiner's Amendment/Comment
- Examiner's Comment Regarding Requirement for Deposit of Biological Material

LY V. HUA
PRIMARY EXAMINER

Examiner's Statement of Reasons for Allowance



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

DAVID R. GARDNER
1177 HICKORY HILL DRIVE
MILFORD, CT 06460

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/8849 005	03/20/1997	007	1116, 1	2/27/98 06/26/1999
First Named Applicant	DAVID R. GARDNER			005

TITLE OF INVENTION: PROCEEDINGS OF A METHOD FOR THE AUTOMATICALLY CONTROLLED OPERATION OF A

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
08-8849-005	713-000,000	001	UTILITY	YES	\$600.00	05/07/99

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

Transaction History Date 1999-06-23
Date information retrieved from USPTO Patent
Application Information Retrieval (PAIR)
system records at www.uspto.gov

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2785

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security
Functionality
Serial No.: 08/869,305 Filed: June 4, 1997
Examiner: L. Hua Group Art Unit: 2785
Batch No.: U04 Allowed: June 7, 1999
Attorney Docket No.: SPY-004

B

Milpitas, California
June 16, 1999

Box Issue Fee
Assistant Commissioner for Patents
Washington, D.C. 20231

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JUN 24 1999

SUBMISSION OF FORMAL DRAWINGS

Publishing Division
11

Sir:

In a Notice of Allowability dated June 7, 1999, in the above-identified application, Applicants were required to submit formal drawings. Applicants submit herewith nine (9) sheets of formal drawings consisting of FIGS. 1, 2, 3A, 3B, 4, 5, 6, 7, 8, 9A and 9B. The Official Draftsperson is requested to telephone Applicants' undersigned attorney at (408) 945-9912 if there are any questions or problems with the enclosed formal drawings.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on June 16, 1999.

6-16-99 David R. Graham
Date Signature

Respectfully submitted,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants

1D08869305



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1/9

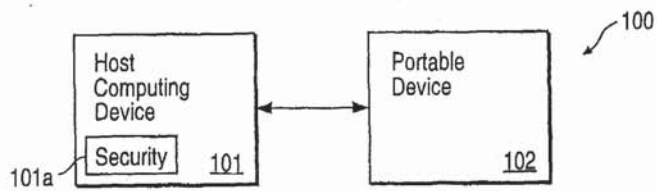


FIG. 1
(PRIOR ART)

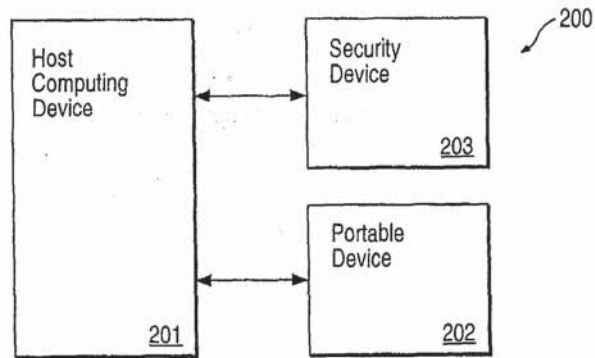


FIG. 2
(PRIOR ART)

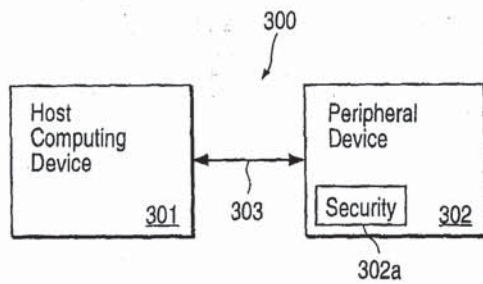


FIG. 3A

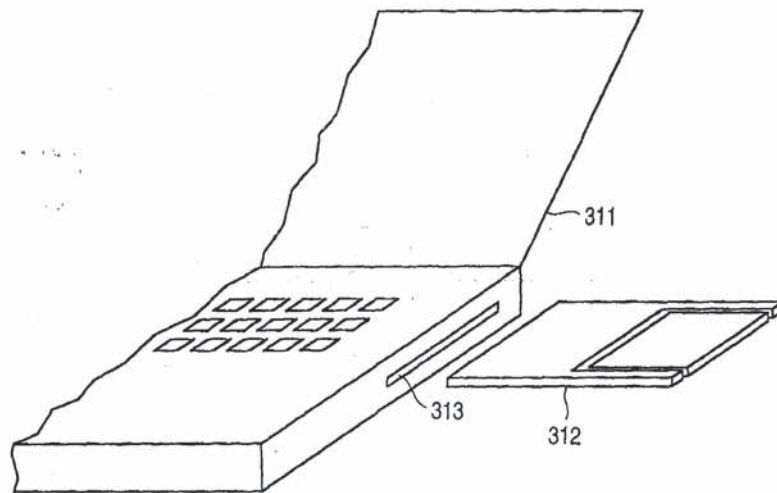


FIG. 3B

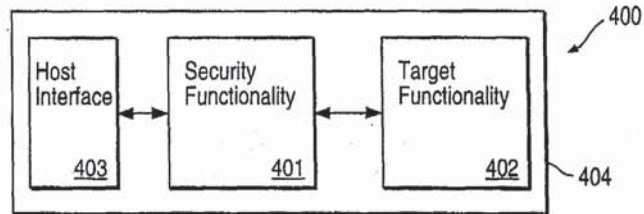


FIG. 4

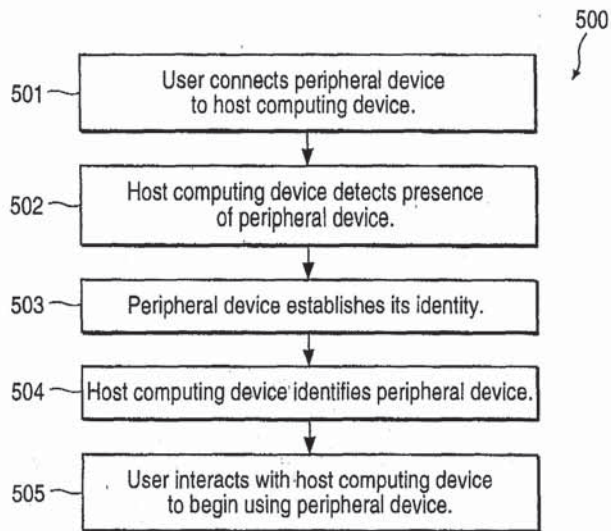


FIG. 5

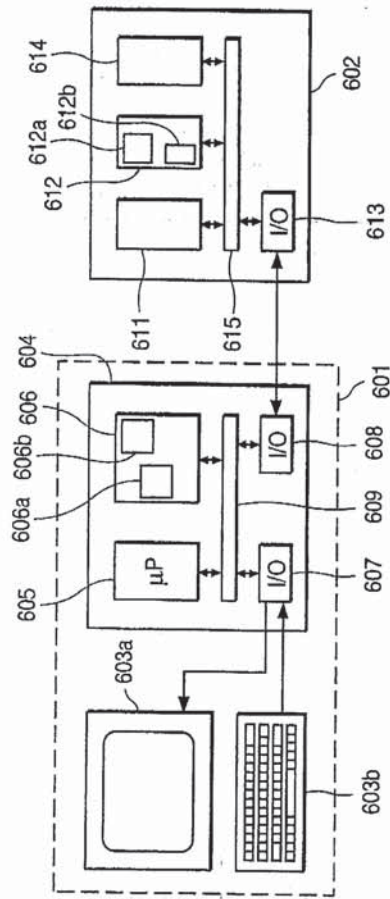
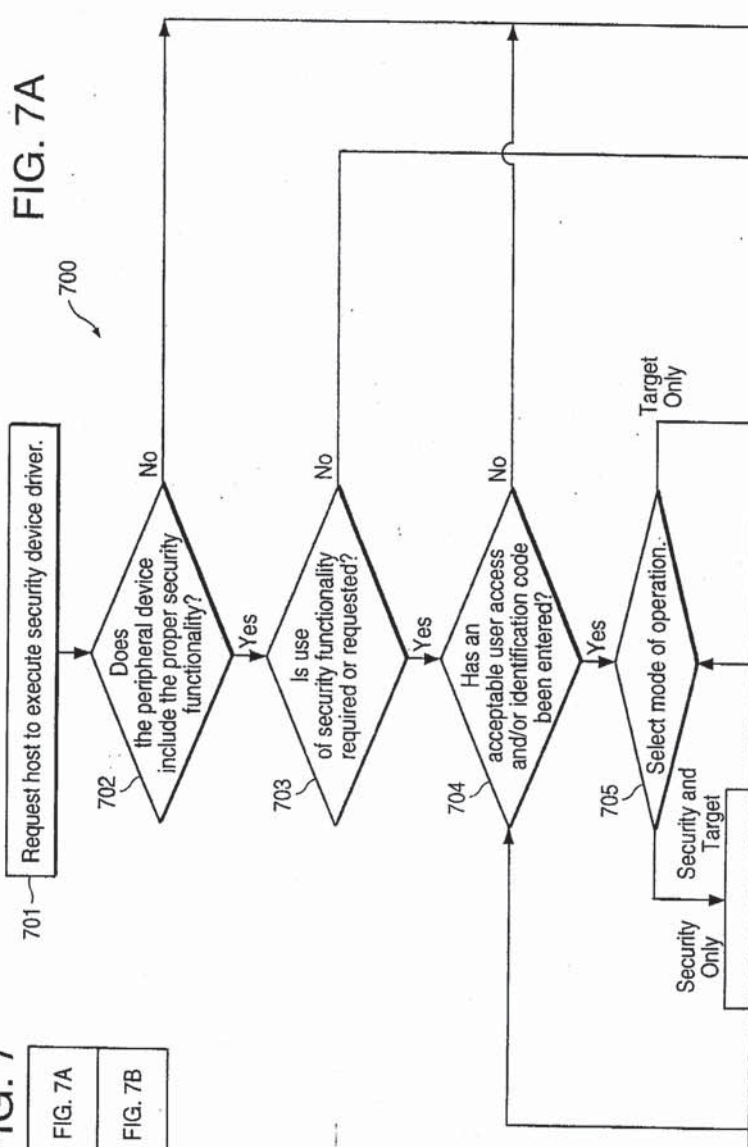


FIG. 6

FIG. 7
FIG. 7A
FIG. 7B



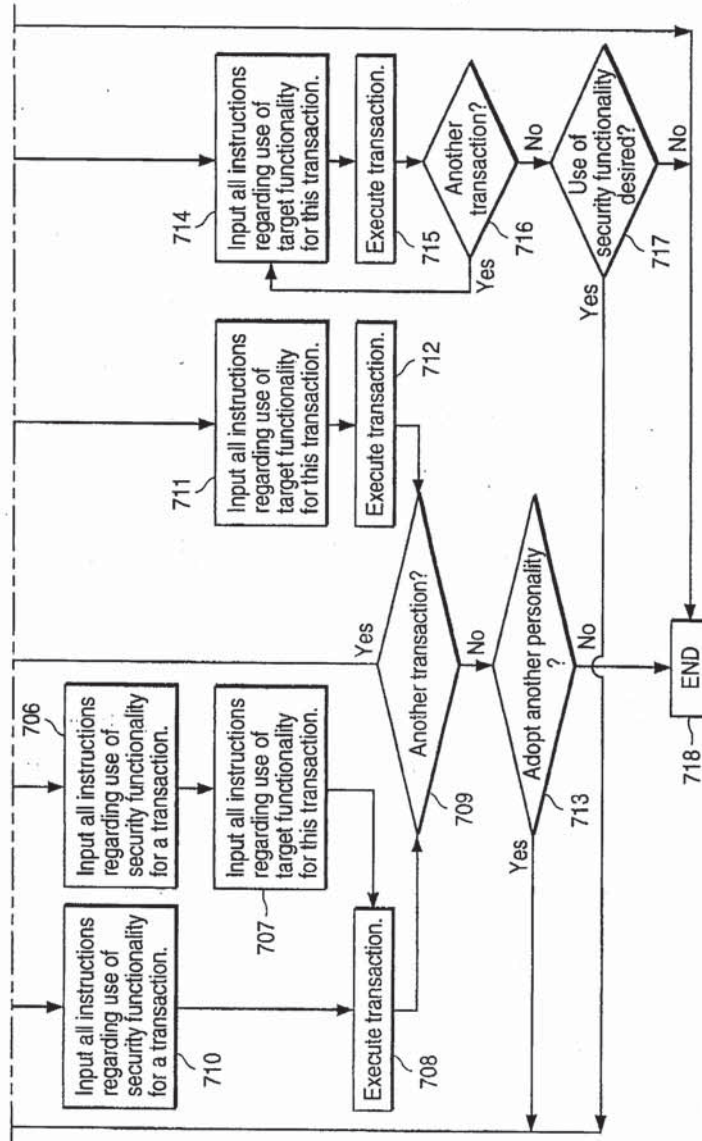


FIG. 7B

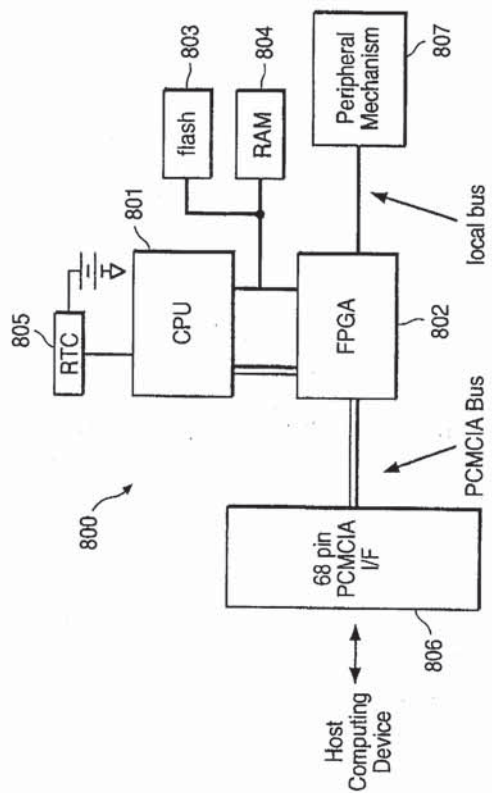


FIG. 8

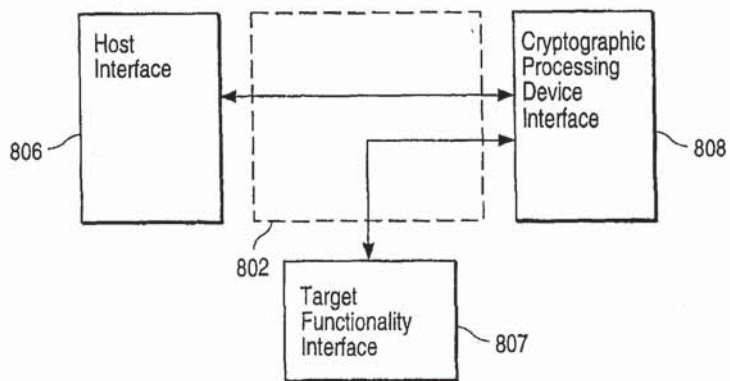


FIG. 9A

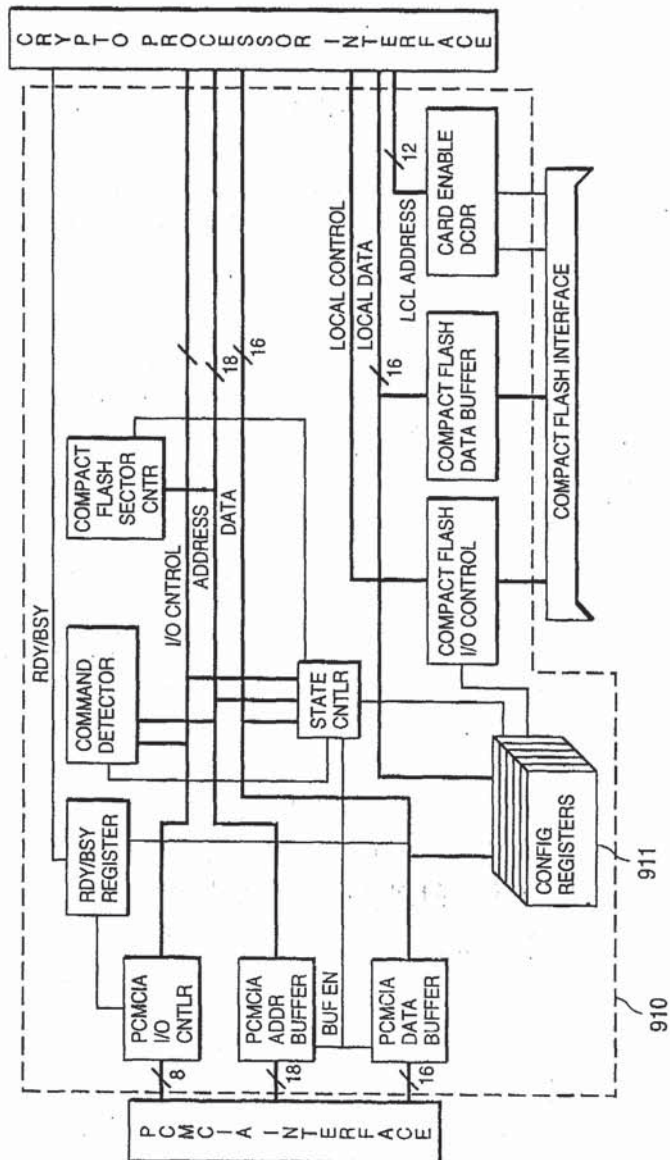


FIG. 9B

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security
Functionality
Serial No.: 08/869,305 Filed: June 4, 1997
Examiner: L. Hua Group Art Unit: 2785
Batch No.: U04 Allowed: June 7, 1999
Attorney Docket No.: SPY-004



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Group 2700

Milpitas, California
September 7, 1999

Box Issue Fee
Assistant Commissioner for Patents
Washington, D.C. 20231

PETITION UNDER 37 C.F.R. § 1.97(d)(2)

Sir:

In view of the allowed status of the above-referenced application, pursuant to 37 C.F.R. § 1.97(d)(2), Applicants hereby request consideration of the accompanying Information Disclosure Statement. Enclosed is a check (Check No. 1461) for \$130.00 for the petition fee under 37 C.F.R. § 1.17(i). This Petition is being submitted in duplicate.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on September 7, 1999.

9-7-99 *David R. Graham*
Date Signature

Respectfully submitted,

David R. Graham

David R. Graham
Reg. No. 36,150
Attorney for Applicants

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William P. Bialick et al.
Assignee: Spyrus, Inc.
Title: Peripheral Device With Integrated Security Functionality
Serial No.: 08/869,305 Filed: June 4, 1997
Examiner: L. Hua Group Art Unit: 2785
Batch No.: U04 Allowed: June 7, 1999
Attorney Docket No.: SPY-004



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Group 2700

SEP 13 1999

Milpitas, California
September 7, 1999

Box Issue Fee
Assistant Commissioner for Patents
Washington, D.C. 20231

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SEP 15 1999

Patenting Division
13

INFORMATION DISCLOSURE STATEMENT
WITH CERTIFICATION UNDER 37 C.F.R. § 1.97(e) (2)

Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, Applicants bring the documents (copies enclosed) listed on the enclosed Form PTO-1449 to the Examiner's attention in the above-identified application. Citation of these documents shall not be construed as an admission that the documents are necessarily prior art with respect to the instant invention. Also, citation of these documents shall not be construed as an admission that the information disclosed therein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b)

The undersigned hereby certifies in accordance with 37 CFR § 1.97(e) (2) that no item of information contained in this information disclosure statement was cited in a communication

130-00 0P
08/00/07 08453205
14/1999 HSHIFER1
FF:122

from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this information disclosure statement, except for U.S. Patent No. 4,709,136 to Watanabe.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Assistant Commissioner for Patents,
Washington, D.C. 20231, on September 7, 1999.

9-7-99 David R. Graham
Date signature

Respectfully submitted
and certified by,

David R. Graham
David R. Graham
Reg. No. 36,150
Attorney for Applicants

U.S. DEPT OF COMMERCE - PATENT & TRADEMARK OFFICE	ATTORNEY DOCKET NO.: SPY-004	SERIAL NO.: 08/869,305
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	APPLICANTS: William P. Bialick et al.	
	FILING DATE: June 4, 1997	GROUP ART UNIT: 2785

U.S. PATENTS						
EXAMINER'S INITIALS	PATENT NUMBER	ISSUE DATE	INVENTOR(S)	CLASS	SUB-CLASS	FILING DATE
<i>PUC</i>	4,709,136	11/24/87	Watanabe	235	379	06/03/86
<i>PUC</i>	5,878,142	3/2/99	Caputo et al.	380	25	6/10/96
<i>PUC</i>	5,790,674	8/4/98	Houvenier et al.	380	23	7/19/96
<i>PUC</i>	5,610,981	3/11/97	Mooney et al.	380	25	2/28/95
<i>PUC</i>	5,524,134	6/4/96	Gustafson et al.	379	58	4/28/94
<i>PUC</i>	5,828,832	10/27/98	Holden et al.	395	187.01	7/30/96
<i>PUC</i>	5,640,302	6/17/97	Kikinis	361	687	3/11/96
						RECEIVED
						DEC 07 1999
						Group 2700



FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	DOCUMENT NUMBER	PUBLICATION DATE	NAME(S)	JURISDICTION	TRANSLATION?	
					YES	NO

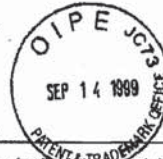
OTHER DOCUMENTS	
EXAMINER'S INITIALS	AUTHOR(S), TITLE, PUBLICATION, DATE, PERTINENT PAGES, ETC.

EXAMINER: <i>Ly V. Hua</i>	DATE CONSIDERED: <i>12/14/99</i>
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP g609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.	

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PART B—ISSUE FEE TRANSMIT

Complete and mail this form, together with applicable fees, to: Box ISSUE FEE Assistant Commissioner for Washington, D.C. 20231



Handwritten initials: BF

MAILING INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE. Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Issue Fee Receipt, the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

Note: The certificate of mailing... only be used for domestic mailings of the Issue Fee Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

Certificate of Mailing

I hereby certify that this Issue Fee Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

DAVID R GRAHAM 1337 CHEWPCON AVENUE MILPITAS CA 95035

LM21/0607

David R. Graham (Depositor's name)

David R. Graham (Signature)

September 7, 1999 (Date)

Table with columns: APPLICATION NO., FILING DATE, TOTAL CLAIMS, EXAMINER AND GROUP ART UNIT, DATE MAILED. Includes application 08/869,305 and applicant BIALICK.

TITLE OF INVENTION PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY

Table with columns: ATTY'S DOCKET NO., CLASS-SUBCLASS, BATCH NO., APPLN. TYPE, SMALL ENTITY, FEE DUE, DATE DUE. Includes docket number 2 SPY-004.

- 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.
2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents.

- 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent.
4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks): Issue Fee, Advance Order - # of Copies 10
4b. The following fees or deficiency in these fees should be charged to: DEPOSIT ACCOUNT NUMBER 50-0840

The COMMISSIONER OF PATENTS AND TRADEMARKS IS requested to apply the Issue Fee to the application identified above. (Authorized Signature) David R. Graham (Date) 9-7-99

NOTE: The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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Vertical stamp: 15/1999 TTRM2 00000159 08863305 605.00 30.00



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/869,305	06/04/97	BIALICK	W SPY-004

DAVID R GRAHAM
1337 CHEWPON AVENUE
MILPITAS CA 95035

LM21/1216

EXAMINER

HUA, L

ART UNIT	PAPER NUMBER
2785	12

DATE MAILED: 12/16/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

08/869,305



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/869,305	06/04/97	BIALICK	SPY 884

DAVID R GRAHAM
1337 CHEWON AVENUE
MILPITAS CA 95035

LM21/1216

EXAMINER
HUA, L

ART UNIT PAPER NUMBER
2785

DATE MAILED: 12/16/99 12

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

The Examiner hereby informs the Applicant(s) that the Information Disclosure Statement Under 37 C.F.R. 1.97(c) (1) filed on September 13, 1999, has been received, (i) matched up with its associated Application No. 08/869,305 after the Notice of Allowance (mailed on June 7, 1999, and (ii) entered. The references have been considered by the Examiner as indicated in the copy of initialed Form PTO-1449 attached herewith.

Attachement: Form PTO-1449

Ly V. Hua
Patent Examiner
Art Unit 2785

L. Hua
December 14, 1999

File History Content Report

The following content is missing from the original file history record obtained from the United States Patent and Trademark Office. No additional information is available.

Document Date - 1999-12-16

Document Title - List of References cited by applicant and considered by examiner

This page is not part of the official USPTO record. It has been determined that content identified on this document is missing from the original file history record.

File History Content Report

The following content is missing from the original file history record obtained from the United States Patent and Trademark Office. No additional information is available.

Document Date - 2000-07-11

Document Title - USPTO Grant

This page is not part of the official USPTO record. It has been determined that content identified on this document is missing from the original file history record.

Electronic Acknowledgement Receipt

EFS ID:	21563316
Application Number:	08869305
International Application Number:	
Confirmation Number:	5587
Title of Invention:	PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY
First Named Inventor/Applicant Name:	WILLIAM P. BIALICK
Customer Number:	23676
Filer:	Robert Rose
Filer Authorized By:	
Attorney Docket Number:	18835
Receipt Date:	21-FEB-2015
Filing Date:	04-JUN-1997
Time Stamp:	15:22:00
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Assignee showing of ownership per 37 CFR 3.73.	373-6088802.pdf	1224058 43a925445272ab461811312d4020560b122674659	no	1

Warnings:

Information:

2	Power of Attorney	SPEX-5B80.pdf	902057	no	1
			ba681702164d4659262767f226b33b6c7463e8f		

Warnings:

Information:

Total Files Size (in bytes):

2126115

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: SPEX TECHNOLOGIES
 Application No./Patent No.: 6088802 Filed/Issue Date: 07/11/2000
 Titled: PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY

SPEX Technologies, Inc., a corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. the assignee of the entire right, title, and interest in;
2. an assignee of less than the entire right, title, and interest in (The extent (by percentage) of its ownership interest is _____ %); or
3. the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

the patent application/patent identified above, by virtue of either:

A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy therefore is attached.

OR

B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: BIALICK, et al. To: Spyrus, Inc.

The document was recorded in the United States Patent and Trademark Office at Reel 008942, Frame 0204, or for which a copy thereof is attached.

2. From: Spyrus, Inc. To: SPEX Technologies, Inc.

The document was recorded in the United States Patent and Trademark Office at Reel 034971, Frame 0298, or for which a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet(s).

As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

<u>Robert Rose</u>	<u>02/19/2015</u>
Signature	Date
<u>Robert Rose</u>	<u>Attorney of record</u>
Printed or Typed Name	Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

Practitioners associated with the Customer Number: 103677

OR

Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

The address associated with Customer Number: 103677

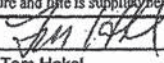
OR

<input type="checkbox"/> Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone	Email		

Assignee Name and Address:

SPEX Technologies, Inc.
 1860 HARTOG DRIVE
 SAN JOSE CA 95131

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record			
The individual whose signature and title is supplied below is authorized to act on behalf of the assignee			
Signature		Date	2/19/2015
Name	Tom Hakel	Telephone	(408) 392-9131
Title	President		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
08/869,305	06/04/1997	WILLIAM P. BIALICK	

103677
Law Office of Robert J. Rose
PO Box 4341
Diamond Bar, CA 91765

CONFIRMATION NO. 5587
POA ACCEPTANCE LETTER



0000000073704553

Date Mailed: 03/02/2015

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/21/2015.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/d/vernon/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22311-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
08/869,305	06/04/1997	WILLIAM P. BIALICK	18835

CONFIRMATION NO. 5587

POWER OF ATTORNEY NOTICE

23676
Leech Tishman Fuscaldo & Lampi
Jeffrey G. Sheldon
100 Corson Street
Third Floor
PASADENA, CA 91103-3842



Date Mailed: 03/02/2015

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 02/21/2015.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/dtvernon/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
---	--

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Central District of California on the following
 Trademarks or Patents. (the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 8:16-cv-01790	DATE FILED 9/27/2016	U.S. DISTRICT COURT Central District of California
PLAINTIFF SPEX Technologies, Inc.		DEFENDANT Kingston Technology Corporation, et al.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 6,088,802	7/11/2000	SPEX Technologies, Inc.
2 6,003,135	12/14/1999	SPEX Technologies, Inc.
3		
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
3		
4		
5		

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director. Copy 3—Upon termination of action, mail this copy to Director
 Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

7 sheets

PATENT APPLICATION FEE DETERMINATION RECORD					Application or Docket Number					
Effective October 1, 1997										
CLAIMS AS FILED - PART I			(Column 1)	(Column 2)	SMALL ENTITY TYPE <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA			RATE	FEE			RATE	FEE
BASIC FEE						395.00	OR			790.00
TOTAL CLAIMS	39	minus 20 =	12		x\$11=		OR	x\$22=	264	
INDEPENDENT CLAIMS	12	minus 3 =	9		x41=		OR	x82=	738	
MULTIPLE DEPENDENT CLAIM PRESENT					+135=		OR	+270=		
					TOTAL		OR	TOTAL	1768	
* If the difference in column 1 is less than zero, enter "0" in column 2										
CLAIMS AS AMENDED - PART II					(Column 1)		(Column 2)		(Column 3)	
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE	
	Total	39	Minus	32	=	63				
	Independent	8	Minus		=					
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM									
						TOTAL ADDIT. FEE	63	OR	TOTAL ADDIT. FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE	
	Total	39	Minus		=					
	Independent	9	Minus	12	=					
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM									
						TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	
AMENDMENT C		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE	
	Total		Minus		=					
	Independent		Minus		=					
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM									
						TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Table of Contents

1. US6088802A Peripheral device with integrated security functionality
-

Family 1/1

4 record(s) per family

Record 1/4 WO1998055911A1 PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY | DISPOSITIF PERIPHERIQUE A FONCTIONS DE SECURITE INTEGREES

Publication Number: WO1998055911A1 19981210

Title: PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY | DISPOSITIF PERIPHERIQUE A FONCTIONS DE SECURITE INTEGREES

Title - DWPI: Peripheral device with integrated security functionality in which portable computing module communicates with host device, and includes security functionality which enables security operations to be performed on data stored in host computer

Priority Number: US1997869305A

Priority Date: 1997-06-04

Application Number: WO1998US11052A

Application Date: 1998-06-01

Publication Date: 1998-12-10

IPC Class Table:

IPC	Section	Class	Subclass	Class Group	Subgroup
G06F002100	G	G06	G06F	G06F0021	G06F002100

IPC Class Table - DWPI:

IPC - DWPI	Section - DWPI	Class - DWPI	Subclass - DWPI	Class Group - DWPI	Subgroup - DWPI
G06F000100	G	G06	G06F	G06F0001	G06F000100
G06K001467	G	G06	G06K	G06K0014	G06K001467

Assignee/Applicant: SPYRUS INC.,US

JP F Terms:

JP FI Codes:

Assignee - Original: SPYRUS INC.

Any CPC Table:

Type	Invention	Additional	Version	Office
Current	G06F 21/34	-	20130101	EP

ECLA: G06F002134

Abstract:

The invention enables a peripheral device to communicate with a host computing device to enable one or more security operations to be performed by the peripheral device on data stored within the host computing device, data provided from the host computing device to the peripheral device (which can then be, for example, stored in the peripheral device or transmitted to yet another device), or data retrieved by the host computing device from the peripheral device (e.g., data that has been stored in the peripheral device or transmitted to the peripheral device from another device). In particular, the peripheral device can be adapted to enable, in a single integral peripheral device, performance of one or more security operations on data, and a defined interaction with a host computing device that has not previously been integrated with security operations in a single integral device. The defined interactions can provide a variety of types of functionality (e.g., data storage, data communication, data input and output, user identification), as described further below. The peripheral device can also be implemented so that the security operations are performed in-line, i.e., the security operations are performed between the communication of data to or from the host computing device and the performance of the defined interaction. Moreover, the peripheral device can be implemented so that the security functionality of the peripheral device is transparent to the host computing device.

L'invention permet de faire communiquer un dispositif périphérique avec un ordinateur hôte et permet au dispositif périphérique d'effectuer une ou plusieurs opérations de sécurité: sur des données stockées dans l'ordinateur hôte, sur des données fournies par l'ordinateur hôte au dispositif périphérique (données qui peuvent par exemple être stockées ou être transférées sur un autre dispositif) ou sur des données récupérées par l'ordinateur hôte dans le dispositif périphérique (données qui peuvent par exemple avoir été stockées dans le dispositif périphérique ou y avoir été transférées depuis un autre dispositif). Le dispositif périphérique peut en particulier être adapté pour permettre d'assurer dans un unique périphérique monobloc l'exécution d'une ou plusieurs opérations de sécurité sur des données et permettre une interaction définie avec un ordinateur hôte n'ayant pas été intégré antérieurement aux opérations de sécurité d'un unique périphérique monobloc. Les interactions définies peuvent porter sur différents types de fonctions (par exemple stockage de données, entrée et sortie de données, identification de l'utilisateur)

telles que présentées plus loin. Le dispositif périphérique peut également être réalisé pour que les opérations de sécurité s'effectuent en ligne c.-à-d. entre la communication de données à destination ou en provenance de l'ordinateur hôte et l'exécution de l'interaction définie. De plus, le dispositif périphérique peut être réalisé pour que ses fonctions de sécurité soient transparentes vis à vis de l'ordinateur hôte.

Language of Publication: EN

INPADOC Legal Status Table:

Gazette Date	Code	INPADOC Legal Status Impact
2001-09-26	WWW	-
Description: WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE EP 1998926135		
2000-12-04	NENP	-
Description: NON-ENTRY INTO THE NATIONAL PHASE IN: CA		
2000-04-06	REG	-
Description: REFERENCE TO NATIONAL CODE DE 8642 IMPACT ABOLISHED FOR DE - I.E. PCT APPL. NOT ENT. GERMAN PHASE		
2000-03-22	WWP	+
Description: WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE EP 1998926135		
2000-03-03	NENP	-
Description: NON-ENTRY INTO THE NATIONAL PHASE IN: JP 1999502623		
1999-12-24	WWE	+
Description: WIPO INFORMATION: ENTRY INTO NATIONAL PHASE EP 1998926135		
1999-04-21	121	-
Description: EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION		
1999-03-04	DFPE	-
Description: REQUEST FOR PRELIMINARY EXAMINATION FILED PRIOR TO EXPIRATION OF 19TH MONTH FROM PRIORITY DATE (PCT APPLICATION FILED BEFORE 20040101)		
1998-12-10	AL	+

Description: DESIGNATED COUNTRIES FOR REGIONAL PATENTS WO 9855911 A1 GH; GM; KE; LS; MW; SD; SZ; UG; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; ML; MR; NE; SN; TD; TG

1998-12-10

AK

+

Description: DESIGNATED STATES WO 9855911 A1 AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; GH; GM; GW; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; UA; UG; UZ; VN; YU; ZW

Post-Issuance (US):

Reassignment (US) Table:

Maintenance Status (US):

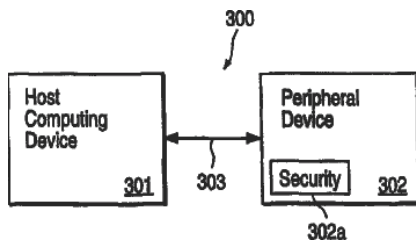
Litigation (US):

Opposition (EP):

License (EP):

EPO Procedural Status:

Front Page Drawing:



Assignee - Current US:

Record 2/4 AU199878042A Peripheral device with integrated security functionality

Publication Number: AU199878042A 19981221

Title: Peripheral device with integrated security functionality

Title - DWPI: Peripheral device with integrated security functionality in which portable computing module communicates with host device, and includes security functionality which enables security operations to be performed on data stored in host computer

Priority Number: US1997869305A | WO1998US11052A

Priority Date: 1997-06-04 | 1998-06-01

Application Number: AU199878042D

Application Date: 1998-06-01

Publication Date: 1998-12-21

IPC Class Table:

IPC	Section	Class	Subclass	Class Group	Subgroup
G06F002100	G	G06	G06F	G06F0021	G06F002100

IPC Class Table - DWPI:

IPC - DWPI	Section - DWPI	Class - DWPI	Subclass - DWPI	Class Group - DWPI	Subgroup - DWPI
G06F000100	G	G06	G06F	G06F0001	G06F000100
G06K001467	G	G06	G06K	G06K0014	G06K001467

Assignee/Applicant: SPYRUS INC

JP F Terms:

JP FI Codes:

Assignee - Original:

Any CPC Table:

Type	Invention	Additional	Version	Office
Current	G06F 21/34	-	20130101	EP

ECLA: G06F002134

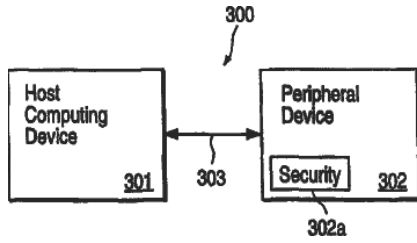
Abstract:

Language of Publication: EN

INPADOC Legal Status Table:

Gazette Date	Code	INPADOC Legal Status Impact
2000-02-17	MK6	-
Description: APPLICATION LAPSED SECTION 142(2)(F)/REG. 8.3(3) - PCT APPLIC. NOT ENTERING NATIONAL PHASE		

Post-Issuance (US):
Reassignment (US) Table:
Maintenance Status (US):
Litigation (US):
Opposition (EP):
License (EP):
EPO Procedural Status:
Front Page Drawing:



Assignee - Current US:

Record 3/4 EP986780A1 PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY | PERIPHERIEGERÄT MIT INTEGRIERTER SICHERHEITSFUNKTIONSFÄHIGKEIT | DISPOSITIF PERIPHERIQUE A FONCTIONS DE SECURITE INTEGREES

Publication Number: EP986780A1 20000322

Title: PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY | PERIPHERIEGERÄT MIT INTEGRIERTER SICHERHEITSFUNKTIONSFÄHIGKEIT | DISPOSITIF PERIPHERIQUE A FONCTIONS DE SECURITE INTEGREES

Title - DWPI: Peripheral device with integrated security functionality in which portable computing module communicates with host device, and includes security functionality which enables security operations to be performed on data stored in host computer

Priority Number: US1997869305A | WO1998US11052A

Priority Date: 1997-06-04 | 1998-06-01

Application Number: EP1998926135A

Application Date: 1998-06-01

Publication Date: 2000-03-22

IPC Class Table:

IPC	Section	Class	Subclass	Class Group	Subgroup
G06F002100	G	G06	G06F	G06F0021	G06F002100

IPC Class Table - DWPI:

IPC - DWPI	Section - DWPI	Class - DWPI	Subclass - DWPI	Class Group - DWPI	Subgroup - DWPI
G06F000100	G	G06	G06F	G06F0001	G06F000100
G06K001467	G	G06	G06K	G06K0014	G06K001467

Assignee/Applicant: Spyrus Inc., San Jose, CA 95131, US, 01935471

JP F Terms:

JP FI Codes:

Assignee - Original: Spyrus Inc.

Any CPC Table:

Type	Invention	Additional	Version	Office
Current	G06F 21/34	-	20130101	EP

ECLA: G06F002134

Abstract:

The invention enables a peripheral device to communicate with a host computing device to enable one or more security operations to be performed by the peripheral device on data stored within the

host computing device, data provided from the host computing device to the peripheral device (which can then be, for example, stored in the peripheral device or transmitted to yet another device), or data retrieved by the host computing device from the peripheral device (e.g., data that has been stored in the peripheral device or transmitted to the peripheral device from another device). In particular, the peripheral device can be adapted to enable, in a single integral peripheral device, performance of one or more security operations on data, and a defined interaction with a host computing device that has not previously been integrated with security operations in a single integral device. The defined interactions can provide a variety of types of functionality (e.g. , data storage, data communication, data input and output, user identification), as described further below. The peripheral device can also be implemented so that the security operations are performed in-line, i.e., the security operations are performed between the communication of data to or from the host computing device and the performance of the defined interaction. Moreover, the peripheral device can be implemented so that the security functionality of the peripheral device is transparent to the host computing device.

L'invention permet de faire communiquer un dispositif périphérique avec un ordinateur hôte et permet au dispositif périphérique d'effectuer une ou plusieurs opérations de sécurité: sur des données stockées dans l'ordinateur hôte, sur des données fournies par l'ordinateur hôte au dispositif périphérique (données qui peuvent par exemple être stockées ou être transférées sur un autre dispositif) ou sur des données récupérées par l'ordinateur hôte dans le dispositif périphérique (données qui peuvent par exemple avoir été stockées dans le dispositif périphérique ou y avoir été transférées depuis un autre dispositif). Le dispositif périphérique peut en particulier être adapté pour permettre d'assurer dans un unique périphérique monobloc l'exécution d'une ou plusieurs opérations de sécurité sur des données et permettre une interaction définie avec un ordinateur hôte n'ayant pas été intégré antérieurement aux opérations de sécurité d'un unique périphérique monobloc. Les interactions définies peuvent porter sur différents types de fonctions (par exemple stockage de données, entrée et sortie de données, identification de l'utilisateur) telles que présentées plus loin. Le dispositif périphérique peut également être réalisé pour que les opérations de sécurité s'effectuent en ligne c.-à-d. entre la communication de données à destination ou en provenance de l'ordinateur hôte et l'exécution de l'interaction définie. De plus, le dispositif périphérique peut être réalisé pour que ses fonctions de sécurité soient transparentes vis à vis de l'ordinateur hôte.

Language of Publication: EN

INPADOC Legal Status Table:

Gazette Date	Code	INPADOC Legal Status Impact
2002-06-05	18D	-
Description: DEEMED TO BE WITHDRAWN 2001-09-26		
2001-06-27	17Q	+
Description: FIRST EXAMINATION REPORT 2001-05-15		
2000-03-22	AK	+
Description: DESIGNATED CONTRACTING STATES: EP 0986780 A1 AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR;		

IE; IT; LI; LU; MC; NL; PT; SE		
2000-03-22	17P	+
Description: REQUEST FOR EXAMINATION FILED 1999-12-24		

Post-Issuance (US):

Reassignment (US) Table:

Maintenance Status (US):

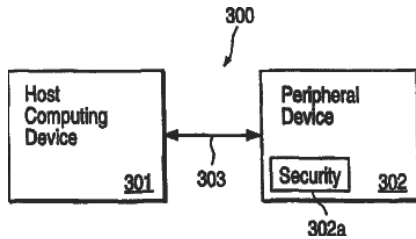
Litigation (US):

Opposition (EP):

License (EP):

EPO Procedural Status: EX-REPORT 2001-05-15 2001 Dispatch of 1st examination report | RJ-DWDRAW 2001-09-26 2001 Deemed to be withdrawn | EX-RQ 1999-12-24 1999 Request for examination

Front Page Drawing:



Assignee - Current US:

Record 4/4 US6088802A Peripheral device with integrated security functionality

Publication Number: US6088802A 20000711

Title: Peripheral device with integrated security functionality

Title - DWPI: Peripheral device with integrated security functionality in which portable computing module communicates with host device, and includes security functionality which enables security operations to be performed on data stored in host computer

Priority Number: US1997869305A

Priority Date: 1997-06-04

Application Number: US1997869305A

Application Date: 1997-06-04

Publication Date: 2000-07-11

IPC Class Table:

IPC	Section	Class	Subclass	Class Group	Subgroup
G06F002100	G	G06	G06F	G06F0021	G06F002100

IPC Class Table - DWPI:

IPC - DWPI	Section - DWPI	Class - DWPI	Subclass - DWPI	Class Group - DWPI	Subgroup - DWPI
G06F000100	G	G06	G06F	G06F0001	G06F000100
G06K001467	G	G06	G06K	G06K0014	G06K001467

Assignee/Applicant: Spyrus Inc.,Santa Clara,CA,US

JP F Terms:

JP FI Codes:

Assignee - Original: Spyrus Inc.

Any CPC Table:

Type	Invention	Additional	Version	Office
Current	G06F 21/34	-	20130101	EP

ECLA: G06F002134

Abstract:

The invention enables a peripheral device to communicate with a host computing device to enable one or more security operations to be performed by the peripheral device on data stored within the host computing device, data provided from the host computing device to the peripheral device (which can then be, for example, stored in the peripheral device or transmitted to yet another device), or data retrieved by the host computing device from the peripheral device (e.g., data that has been stored in the peripheral device, transmitted to the peripheral device from another device or input to the peripheral device by a person). In particular, the peripheral device can be adapted

to enable, in a single integral peripheral device, performance of one or more security operations on data, and a defined interaction with a host computing device that has not previously been integrated with security operations in a single integral device. The defined interactions can provide a variety of types of functionality (e.g., data storage, data communication, data input and output, user identification). The peripheral device can also be implemented so that the security operations are performed in-line, i.e., the security operations are performed between the communication of data to or from the host computing device and the performance of the defined interaction. Moreover, the peripheral device can be implemented so that the security functionality of the peripheral device is transparent to the host computing device.

Language of Publication: EN

INPADOC Legal Status Table:

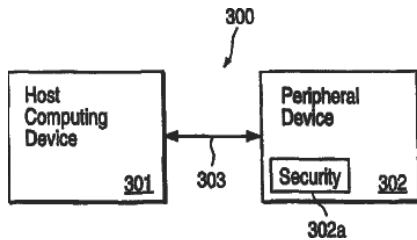
Gazette Date	Code	INPADOC Legal Status Impact
2015-02-17	AS	-
Description: ASSIGNMENT SPEX TECHNOLOGIES, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SPYRUS, INC.; REEL/FRAME:034971/0298 2015-02-12		
2012-01-10	FPAY	+
Description: FEE PAYMENT		
2008-06-06	SULP	+
Description: SURCHARGE FOR LATE PAYMENT		
2008-06-06	FPAY	+
Description: FEE PAYMENT		
2008-01-21	REMI	-
Description: MAINTENANCE FEE REMINDER MAILED		
2004-07-07	SULP	+
Description: SURCHARGE FOR LATE PAYMENT		
2004-07-07	FPAY	+
Description: FEE PAYMENT		
2004-01-28	REMI	-
Description: MAINTENANCE FEE REMINDER MAILED		
1998-01-20	AS	-

Description: ASSIGNMENT SPYRUS, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST;
 ASSIGNORS: BIALICK, WILLIAM P.; SUTHERLAND, MARK J.; DOLPHIN-PETERSON, JANET L.; AND OTHERS;
 REEL/FRAME: 008942/0204; SIGNING DATES FROM 19971218 TO 19971223

Post-Issuance (US):
Reassignment (US) Table:

Assignee	Assignor	Date Signed	Reel/Frame	Date
SPEX TECHNOLOGIES INC., SAN JOSE, CA, US	SPYRUS, INC.	2015-02-12	034971/0298	2015-02-17
Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).				
Corresponent: ROBERT J. ROSE PO BOX 4341 DIAMOND BAR, CA 91765				
SPYRUS INC., SAN JOSE, CA, US	BIALICK, WILLIAM P.	1997-12-19	008942/0204	1998-01-20
	SUTHERLAND, MARK J.	1997-12-18		
	DOLPHIN-PETERSON, JANET L.	1997-12-20		
	ROWLAND, THOMAS K.	1997-12-18		
	SKEBA, KIRK W.	1997-12-23		
	HOUSLEY, RUSSELL D.	1997-12-19		
Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).				
Corresponent: DAVID R. GRAHAM 1337 CHEWPON AVE. MILPITAS, CALIFORNIA 95035				

Maintenance Status (US):
Litigation (US):
Opposition (EP):
License (EP):
EPO Procedural Status:
Front Page Drawing:



Assignee - Current US: SPEX TECHNOLOGIES INC.



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United States Patent and Trademark Office

Office of the Commissioner for Patents

PERIPHERAL DEVICE WITH INTEGRATED SECURITY FUNCTIONALITY

PATENT # 6088802	APPLICATION # 08869305	FILING DATE 06/04/1997	ISSUE DATE 07/11/2000
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Payment Window Status

WINDOW 11.5 Year	STATUS Closed	FEES Paid
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No maintenance fees are due.

Window	First Day to Pay	Surcharge Starts	Last Day to Pay	Status	Fees
3.5 Year	07/11/2003	01/13/2004	07/12/2004	Closed	Paid
7.5 Year	07/11/2007	01/12/2008	07/11/2008	Closed	Paid
11.5 Year	07/11/2011	01/12/2012	07/11/2012	Closed	Paid

Patent Holder Information

Customer #	23676
Entity Status	UNDISCOUNTED
Phone Number	6267964000
Address	Leech Tishman Fuscaldo & Lampl Jeffrey G. Sheldon 100 Corson Street Third Floor PASADENA, CA 91103-3842 UNITED STATES