IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

IN RE PAPST LICENSING GMBH & CO. KG LITIGATION	**Misc. Action No. 07-493 (RMC)** **MDL No. 1880**
This Document Relates To: **HP v. Papst, No. 08-cv-865**	

HEWLETT-PACKARD COMPANY'S SUPPLEMENTAL INVALIDITY CONTENTIONS

Pursuant to this Court's Second Practice and Procedure Order and the May 27, 2008 Minute Order, defendant Hewlett-Packard Company ("HP") submits the following Supplemental Invalidity Contentions ("Invalidity Contentions") in response to the Asserted Claims and Infringement Contentions ("Infringement Contentions") submitted by plaintiff Papst Licensing GmbH & Co. KG ("Papst") on May 28, 2008.

PRELIMINARY STATEMENTS

HP incorporates by reference the entirety of the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein. HP bases these Invalidity Contentions on its current knowledge, understanding, and belief as to the facts and information available as of the date of these contentions. HP has not yet completed its investigation, collection of information, discovery, or analysis relating to U.S. Patent Nos. 6,470,399 and 6,895,449 ("the patents-in-suit"), and HP may supplement or modify these contentions based on further investigation and/or discovery.

Further, Papst's Infringement Contentions, including Papst's proposed constructions of claim language, are deficient in many respects and do not provide HP with sufficient information to understand the bases for Papst's infringement allegations or to identify all of the prior art that might be invalidating. To the extent Papst's Infringement Contentions are understandable, these Invalidity Contentions are based, at least in part, on Papst's constructions regarding claims 1, 2, 3, 5, 7, 11, 14 and 15 of U.S. Patent No. 6,470,399 ("the '399 patent"), claims 1, 2, 6, 7, 8, 9, 12, 13, 15, 16, 17 and 18 of U.S. Patent No. 6,895,449 ("the '449 patent"), and Papst's application of those constructions to the accused products. Papst did not provide any contentions suggesting that HP infringes other claims of these patents or any other patent. Consequently, in reliance thereon, HP has not separately addressed the other claims in the patents-in-suit.[1]

In addition, HP has not received all of the documents that may be relevant to its Invalidity Contentions, and Papst has not produced all of the information responsive to HP's discovery requests. HP also has not had the opportunity to take the deposition of the named inventor of the '399 and '449 patents and/or other persons having potentially relevant information. The Defendants are in the process of issuing subpoenas to third parties believed to have knowledge, documentation, and/or corroborating evidence relating to invalidity and/or prior art. For example, HP is currently investigating prior art products from National Instruments. However, HP does not yet have sufficient information to provide invalidity charts at this time. It is therefore likely that HP will discover additional prior art pertinent to the asserted claims of the asserted patents or additional information relevant to the already-identified prior art and HP reserves the right to supplement these contentions within a reasonable time after becoming aware of additional prior art or information. HP reserves the right to introduce and use such

[1] HP reserves the right to amend and/or supplement these Invalidity Contentions, if necessary, due to any amendments Papst may make to its Asserted Claims and Infringement Contentions.

supplemental materials at trial.

Further, HP has had little or no discovery concerning the alleged conception and reduction to practice by the named inventor of the subject matter of the patents-in-suit. Accordingly, HP does not presently have a basis for assessing the date(s) to which Papst might be entitled as an earliest conception date or the named inventor's diligence, if any, through reduction to practice. HP may seek documents from third parties in discovery that establish earlier dates of conception and reduction to practice, as appropriate, in order to demonstrate such third parties' earlier dates of invention under 35 U.S.C. § 102(g). HP therefore reserves the right to supplement these Invalidity Contentions with further documentation, if and when it becomes available, to support earlier dates of invention for prior art than what is argued by Papst to be the dates of invention for the asserted claims of the patents-in-suit.

Moreover, HP has had little or no discovery concerning the claimed priority date for each of the asserted claims. HP presently is examining the date(s) to which Papst might be entitled as an earliest priority date for each of the asserted claims. By way of example only, the original German patent application (filed March 4, 1997), to which the '399 and '449 patents claim priority, was changed in significant respects to become the PCT application (filed March 3, 1998) which lead to the '399 and '449 patents. Accordingly, certain claims of the '399 and '449 patents may have different priority dates because their supporting disclosures are impacted by these changes to the specification. For any such claims, references and products from different time periods may constitute invalidating prior art. HP further reserves its right to supplement, modify, and/or amend its Invalidity Contentions and its identification and production of prior art in view of the Court's determination of the correct priority date for any of the asserted claims in this action.

HP also reserves its right to supplement, modify, and/or amend these Invalidity Contentions after the Court has construed all relevant claim terms. HP's contentions concerning the validity of the asserted claims of the patents-in-suit may change based upon the Court's construction of the claims or positions that Papst may take concerning claim construction, infringement, or validity issues.

HP provides the information herein according to its understanding of Papst's interpretations of the asserted claims of the patents-in-suit, as set forth in Papst's Infringement Contentions. The information below and in the accompanying Exhibits is not in any way an admission regarding the scope of any claim asserted by Papst nor is it an admission as to the proper construction or interpretation of the asserted claims or any terms contained therein. HP reserves the right to supplement, modify and/or amend its Invalidity Contentions in view of any modifications or clarifications Papst may make to its proposed claim constructions or infringement contentions. Further, the production of documents that have been identified in these Invalidity Contentions shall not be deemed an admission that such documents are admissible or that HP has waived any objections regarding the admissibility of such documents.

In the claim charts accompanying these Invalidity Contentions, HP identifies specific portions of prior art references that disclose the elements of the asserted claims. Although HP has attempted to identify at least one citation per element for each reference, each and every disclosure of the same element in the reference is not necessarily identified. The lack of a citation for an element should not be deemed an admission that the element is not disclosed or is not inherent in the reference, as HP's investigation is ongoing. In an effort to focus the issues, HP identifies only exemplary portions of cited references. It should be recognized that persons of ordinary skill in the art generally read a prior art reference as a whole and in the context of

other publications and literature. To understand and interpret any specific statement or disclosure within a prior art reference, such persons would rely on other information within the reference, along with other publications and their general scientific or engineering knowledge. HP consequently reserves the right to rely upon other unidentified portions of the prior art references and on other publications and expert testimony to provide context, and as aids to understanding and interpreting the portions that are identified. HP also reserves the right to rely on other portions of the prior art references, other publications, and the testimony of experts to establish that a person of ordinary skill in the art would have been motivated to modify or combine certain of the cited references so as to render the claims obvious.

Certain limitations in the asserted claims may be disclosed in the prior art by the disclosure of certain characteristics. By way of example only, a disclosure in a prior art reference of an analog-to-digital converter indicates the presence of a sampling circuit that operates in conjunction with the analog-to-digital converter. As another example, a disclosure of interface communication using only standard protocols (e.g., the SCSI protocol) may also constitute a disclosure of using only the standard communication drivers for that protocol. Nothing contained in these Invalidity Contentions or any accompanying exhibits or claim charts should be understood or deemed to be an express or implied admission or contention with respect to any correlation between the limitations of the asserted claims and other characteristics of the subject matter in the prior art references.

Where HP identifies a particular figure in a prior art reference, the identification should be understood to encompass the caption and description of the figure and any text relating to the figure in addition to the figure itself. Similarly, where an identified portion of text refers to a figure, the identification should be understood to include the figure.

IDENTIFICATION OF PRIOR ART

For ease of reference and to avoid unnecessary duplication, HP incorporates the prior art references identified in and invalidity charts attached to the Camera Manufacturers Invalidity Contentions submitted on June 18, 2008, as if fully set forth herein. In addition, below are tables identifying additional items of prior art that, upon reasonable investigation, HP believes anticipate and/or render obvious each of the asserted claims of the patents-in-suit. Invalidity charts for these additional items of prior art are attached to these Invalidity Contentions with an Exhibit number as indicated in the column titled "Invalidity Chart."

Table I: United States Patent Prior Art

HP incorporates by reference herein the United States patent prior art references identified in Table I of the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein. HP also identifies the following United States patent prior art references:

US Patent No.	Title	Inventor	Filing Date for 102(e) purpose	Publication or Issue Date	Category of Prior Art	Invalidity Chart
5,974,161	Detachable Card for Capturing Graphics	York	3/1/1996	10/26/1999	102(a) 102(e)	A65 (supplemental chart to A31)
5,854,945	Bar Code Scanner With Keyboard Simulation	Criscito et al.	1/21/1997	12/29/1998	102(a) 102(e)	A63
5,663,901	Computer Memory Cards Using Flash EEPROM Integrated Circuit Chips and Memory-Controller Systems	Wallace et al.	9/12/1995	9/2/1997	102(a) 102(e)	A66
5,570,146	Digital Image Recording Device	Collette	5/31/1994	10/29/1996	102(b)	A67

5,463,772	Transparent peripheral file systems with on-board compression, decompression, and space management	Thompson et al.	4/23/1993	10/31/1995	102(b)	A68 (supplemental chart to A5)
5,291,584	Methods and Apparatus for Hard Disk Emulation	Challa et al.	7/23/1991	3/1/1994	102(b)	A69
5,226,168	Semiconductor Memory Configured to Emulate Floppy and Hard Disk Magnetic Storage Based Upon a Determined Storage Capacity of the Semiconductor Memory	Kobayashi et al.	4/24/1990	7/6/1993	102(b)	A70
4,896,262	Emulation Device for Converting Magnetic Disc Memory Mode Signal From Computer Into Semiconductor Memory Access Mode Signal for Semiconductor Memory	Wayama et al.	2/22/1985	1/23/1990	102(b)	A71

Table II: Foreign Patent Prior Art

HP incorporates by reference the foreign patent prior art references identified in Table II of the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein.

Table III: Non-Patent References

HP incorporates by reference the non-patent prior art references identified in Table III of the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein. HP also identifies the following non-patent prior art references:

Publication Title	Author	Publication Date	Category of Prior Art	Invalidity Chart(s)
32MByte High Performance Solid State Disk	Unno, et al.	April 1996	102(a) 102(b)	A72
Nikon Digital Camera E 100 User's Manual	Nikon	November 1, 1996	102(a) 102(b)	A64
SanDisk website (www.sandisk.com)	SanDisk	At least as early as November 14, 1996	102(a) 102(b)	A78 and A79
TRI/+ Program Shippable Products Catalog	Digital Equipment Corp.	October 1992	102(b)	A73 and A74

Table IV: Prior Art Products

HP incorporates the prior art product references identified in Table IV of the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein. HP also identifies the following prior art products:

Product	Date on Sale or Used in the US	Category of Prior Art	Invalidity Chart
Better Light Company Scanning Camera Back (commercial embodiment of U.S. Pat. No. 5,570,146)	1994	102(b) 102(g)	A67
DeskLab (Gradient Technology, Inc.)	1992	102(b) 102(g)	A73 (supplemental chart to A60)
DASM-AD14 (Analogic Corporation)	1992	102(b) 102(g)	A74 (supplemental chart to A61)

Hewlett-Packard PhotoSmart Camera C5340	At least as early as March 17, 1997	102(a) 102(g)	A75 (supplemental chart to A62)
Hewlett-Packard 88396/88395 SCSI/Parallel Interfaces ("JetLag")	At least as early as 1987	102(b) 102(g)	A76
Nikon E100 CoolPix Camera	At least as early as January 1997	102(a) 102(b) 102(g)	A64
OKI 32 MByte PCMCIA ATA SSD Card	At least as early as April 1996	102(a) 102(b) 102(g)	A72
Polaroid PDC 2000 Camera	At least as early as 1996	102(a) 102(b) 102(g)	A77
SanDisk FlashDisk series and CompactFlash series	At least as early as 1994	102(a) 102(b) 102(g)	A78
SanDisk FlashDrive series	At least as early as 1995	102(a) 102(b) 102(g)	A79

Concurrent with the service of HP's Invalidity Contentions, HP will produce to Papst the items of prior art identified in Invalidity Charts A63 through A79 to the extent not already in Papst's possession. To the extent any such item is not in English, HP will produce a certified English translation of the portion(s) relied upon. Further, HP reserves the right to assert any of the items of prior art above under 35 U.S.C. § 102(g), specifically with respect to items of prior art where further investigation reveals that an author, inventor or engineer has evidence of an earlier date of invention than shown on the face of the reference or product. HP also incorporates the Camera Manufacturers' production of prior art as and for HP's production.

INVALIDITY CHARTS

HP incorporates by reference herein the invalidity charts attached as Exhibits Al through

A62 to the Camera Manufacturers' Invalidity Contentions served on June 18, 2008. In addition, attached to HP's Invalidity Contentions are invalidity charts marked as Exhibits A63 through A79 that contain exemplary portions of the prior art references where each element of each asserted claim may be found. HP, however, maintains that a person of ordinary skill in the art of the patents-in-suit would determine what is described, disclosed, and taught by these publications based on the entire prior art reference. HP, therefore, reserves its right to rely on any and all portions of each prior art reference to establish invalidity under 35 U.S.C. §§ 102 and 103 in the present action.

HP reserves the right to rely on the public use, offer for sale, or sale of the devices described in the prior art references Al through A79 once HP has an opportunity to take discovery of these subjects. To the extent that they are also prior art, HP reserves the right to rely upon foreign counterparts of U.S. patents identified and/or incorporated by reference in HP's Invalidity Contentions; U.S. counterparts of foreign patents and foreign patent applications identified and/or incorporated by reference in HP's Invalidity Contentions; and U.S. and foreign patents and patent applications corresponding to articles and publications identified and/or incorporated by reference in HP's Invalidity Contentions. Prior art under 35 U.S.C. §§ 102(a), 102(b), and 102(e), as well as supporting documents for prior art under 35 U.S.C. §§ 102(a), 102(b), and 102(e) (which may themselves constitute independently invalidating prior art), are identified in the invalidity charts attached and/or incorporated by reference as Exhibits.

ANTICIPATION AND OBVIOUSNESS

HP incorporates by reference the bases for invalidity of the asserted claims of the patents-in-suit under 35 U.S.C. §§ 102 and 103 identified in the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein.

Moreover, HP states that, as shown in the invalidity charts attached and incorporated by reference herein, HP contends that the items of prior art listed and incorporated by reference in the preceding section anticipate, expressly or inherently, and/or render obvious one or more claims of the '399 and/or '449 patents. Alternatively, HP contends that each of the items of prior art listed and incorporated by reference in the preceding section renders the asserted claims of the '399 and/or '449 patents obvious, either alone or in combination with what was known to those of ordinary skill in the art at the time of the alleged invention of the subject matter claimed in the patents-in-suit.[2] In addition, HP contends that each of the asserted claims are obvious in light of the combined disclosures of any one or more of the references.

HP incorporates by reference herein the index attached as Exhibit A to the Camera Manufacturers' Invalidity Contentions served on June 18, 2008. In addition, attached to HP's Invalidity Contentions as Exhibit A is a supplemental index that includes additional references. These indexes attached and incorporated by reference herein, in conjunction with the individual invalidity charts attached and incorporated by reference herein, demonstrate the various possible combinations of disclosures from one or more of the above references that HP believes anticipate and/or render obvious each asserted claim of the '399 and '449 patents.

Anticipation/Obviousness in Light of the Intrinsic Record and the Prior Art

HP incorporates by reference the bases for invalidity of the asserted claims of the patents-in-suit under 35 U.S.C. §§ 102 and 103 in light of the intrinsic record and the prior art identified in the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein.

[2] HP's contentions that the prior art identified and incorporated by reference in HP's Supplemental Invalidity Contentions render the asserted claims obvious under 35 U.S.C. § 103 are in no way an admission or suggestion that each reference does not independently anticipate the asserted claims under 35 U.S.C. § 102.

Claim by Claim Analysis

HP incorporates by reference the exemplary and representative invalidity analysis identified in the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein. In addition, HP asserts the following:

'399 Patent, Claim 1

Claim 1 of the '399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,854,945 (*see* Exhibit A63); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Hewlett-Packard 88396/88395 SCSI/Parallel Interface (*see* Exhibit A76); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

'399 Patent, Claim 2

Claim 2 of the '399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic

Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Hewlett-Packard 88396/88395 SCSI/Parallel Interface (*see* Exhibit A76); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’399 Patent, Claim 3

Claim 3 of the ’399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,854,945 (*see* Exhibit A63); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Hewlett-Packard 88396/88395 SCSI/Parallel Interface (*see* Exhibit A76); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’399 Patent, Claim 5

Claim 5 of the ’399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,854,945 (*see* Exhibit A63); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light

Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Hewlett-Packard 88396/88395 SCSI/Parallel Interface (*see* Exhibit A76); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’399 Patent, Claim 7

Claim 7 of the ’399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’399 Patent, Claim 11

Claim 11 of the ’399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,854,945 (*see* Exhibit A63); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light

Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Hewlett-Packard 88396/88395 SCSI/Parallel Interface (*see* Exhibit A76); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’399 Patent, Claim 14

Claim 14 of the ’399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,854,945 (*see* Exhibit A63); U.S. U.S. Pat. No. 5,570,146 (*see* Exhibit A67); Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Hewlett-Packard 88396/88395 SCSI/Parallel Interface (*see* Exhibit A76); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

‘399 Patent, Claim 15

Claim 15 of the ’399 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog

(*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Hewlett-Packard PhotoSmart Camera C5340 (*see* Exhibit A75); Hewlett-Packard 88396/88395 SCSI/Parallel Interface (*see* Exhibit A76); Nikon E100 CoolPix Camera (*see* Exhibit A64); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’449 Patent, Claim 1

Claim 1 of the ’449 patent is further anticipated by at least the following references: U.S. U.S. Patent No. 5,974,161 (*see* Exhibit A65); Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’449 Patent, Claim 2

Claim 2 of the ’449 patent is further anticipated by at least the following references: U.S. U.S. Patent No. 5,974,161 (*see* Exhibit A65); Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat.

No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

'449 Patent, Claim 6

Claim 6 of the '449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

'449 Patent, Claim 7

Claim 7 of the '449 patent is further anticipated by at least the following references:

U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

'449 Patent, Claim 8

Claim 8 of the '449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’449 Patent, Claim 9

Claim 9 of the ’449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’449 Patent, Claim 12

Claim 12 of the ’449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see*

Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

'449 Patent, Claim 13

Claim 13 of the '449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

'449 Patent, Claim 15

Claim 15 of the '449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and

A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’449 Patent, Claim 16

Claim 16 of the ’449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User’s Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

’449 Patent, Claim 17

Claim 17 of the ’449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No.

4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

'449 Patent, Claim 18

Claim 18 of the '449 patent is further anticipated by at least the following references: U.S. Patent No. 5,974,161 (*see* Exhibit A65); U.S. Patent No. 5,663,901 (*see* Exhibit A66); U.S. Pat. No. 5,570,146 (*see* Exhibit A67); U.S. Patent No. 5,463,772 (*see* Exhibit A68); U.S. Patent No. 5,291,584 (*see* Exhibit A69); U.S. Patent No. 5,226,168 (*see* Exhibit A70); U.S. Patent No. 4,896,262 (*see* Exhibit A71); Unno, 32MByte High Performance Solid State Disk article (*see* Exhibit A72); Nikon Digital Camera E100 User's Manual (*see* Exhibit A64); SanDisk website (*see* Exhibits A78 and A79); TRI/+ Program Shippable Products Catalog (*see* Exhibits A73 and A74); Better Light Company Scanning Camera Back (*see* Exhibit A67); DeskLab from Gradient Technology (*see* Exhibit A73); DASM-AD14 from Analogic Corporation (*see* Exhibit A74); Nikon E100 CoolPix Camera (*see* Exhibit A64); OKI 32 MByte PCMCIA ATA SSD Card (*see* Exhibit A72); Polaroid PDC 2000 Camera (*see* Exhibit A77); SanDisk FlashDisk series and CompactFlash series (*see* Exhibit A78); and SanDisk FlashDrive series (*see* Exhibit A79).

INVALIDITY UNDER 35 U.S.C. § 112

I. 35 U.S.C. § 112, ¶2: INDEFINITENESS

HP incorporates by reference the bases for invalidity of the asserted claims of the patents-in-suit for failure to comply with 35 U.S.C. § 112, ¶2 identified in the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein. HP further states that claim 13 of the '449 patent is invalid for indefiniteness because it depends from claim 12 of the '449 patent, which itself is invalid for indefiniteness as set forth in the Camera Manufacturers' Invalidity Contentions. Moreover, HP states that claims 2, 6, 7, 8, 9, 12, 13, 15 and 16 of the '449 patent also are invalid for indefiniteness because they depend from claim 1 of the '449 patent, which itself is invalid for indefiniteness as set forth in the Camera Manufacturers' Invalidity Contentions.

II. 35 U.S.C. 4 112, ¶1: INSUFFICIENT WRITTEN DESCRIPTION / ENABLEMENT

HP incorporates by reference the bases for invalidity of the asserted claims of the patents-in-suit for failure to comply with 35 U.S.C. § 112, ¶1 identified in the Camera Manufacturers' Invalidity Contentions from June 18, 2008, as if fully set forth herein.

Dated: July 11, 2008

Respectfully submitted,

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Exhibit A

Exhibit A
Key for HP's Prior Art

The following is HP's key of codes corresponding to limitations from Papst's asserted claims in the '399 and '449 patents. In the right-hand column are the claims in which the limitations appear. These codes appear in the columns of the following spreadsheet, which shows disclosures in HP's prior art. The codes also appear in the invalidity charts for each prior art reference, which are attached as Exhibits to HP's Invalidity Contentions.

Claim Limitation	Code	Claims
An interface device for communication between	A	All independents
a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface	B1	'399: 1, 14 '449: 1, 18
a host device, which comprises a multi-purpose interface and a specific driver for this interface	B2	'399: 11 '449: 17
and a data transmit/receive device [the data transmit/receive device arranged for providing analog data]	C C1	All independents '399: 1, 11, 14
a processor [wherein processor is a digital signal processor (DSP)]	D D*	'399:1,11; '449:1,17 '399: 5
a memory [wherein memory has data buffer to buffer data transmitted from device to host]	E E*	'399:1,11; '449:1,17 '399: 3; '449: 16
a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device	F	All independents
a second connecting device for interfacing the interface device with the data transmit/receive device,	G	All independents
the second connecting device including a sampling circuit for sampling the analog data provided by the data transmit/receive device and	G1	'399: 1, 11, 14
an analog-to-digital converter for converting data sampled by the sampling circuit into digital data	G2	'399: 1, 11, 14
where the interface device is configured using the processor and the memory [to include a first command interpreter and a second command interpreter,]	H H1	'399:1,11; '449:1,17 '399: 1,11
[wherein the first command interpreter is configured] in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	I	All independents
sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	J	All independents
which signals to the host device that it is an input/output device customary in a host device	K1	'399: 1, 11, 14
which signals to the host device that it is a storage device customary in a host device, [wherein the storage device is a hard disk]	K2 K2*	'449: 1, 17, 18 '449: 15
whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device	L1	'399: 1, 14
whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device	L2	'449: 1, 18
whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface	L3	'399: 11; '449: 17
[wherein the second command interpreter is configured to] interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device	M	'399: 1, 11, 14
wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure	N1	'449: 1
wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure	N2	'449: 17, 18

Claim Limitation	Code	Claims
wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk	B*1	‘399: 2
wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive	B*1	‘399: 15
wherein the specific driver for the multi-purpose interface is an ASPI manager	B*3	‘399: 13
which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device	N*1	‘399:7
in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device	N*5	‘449: 2
wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host	N*8	‘449: 6
wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device	N*9	‘449: 7
wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host	N*10	‘449: 8
wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device	N*11	‘449: 9
wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host	N*14	‘449: 12
wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device	N*15	‘449: 13

EXHIBIT A
(U.S. PATENT PRIOR ART)

(Patent No.)	Title	Inventor or Author	Filing Date for 102(e) purpose	Publication or Issue Date	Category of Prior Art	399	1,11,14	1,14	11	1,11,14	1,11,14	1,11	5	1,11	3	1,11,14	1,11,14	1,11,14	1,11,14	1,11	1,11	1,11,14	1,11,14	1,11,14			1,14		11	1,11,14			2,15	7							
						449	1,17,18	1,18	17	1,17,18		1,17		1,17	16	1,17,18	1,17,18			1,17		1,17,18	1,17,18		1,17,18	15		1,18	17		1	17,18			2	6	7	8	9	12	13
						Code	A	B1	B2	C	C1	D	D*	E	E*	F	G	G1	G2	H	H1	I	J	K1	K2	K2*	L1	L2	L3	M	N1	N2	B*1	N*1	N*5	N*8	N*9	N*10	N*11	N*14	N*15
5,974,161	Detachable Card for Capturing Graphics	York	3/1/1996	10/26/1999	102(a) 102(e)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5,854,945	Bar Code Scanner With Keyboard Simulation	Criscito et al.	1/21/1997	12/29/1998	102(a) 102(e)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X	X										X
5,663,901	Computer Memory Cards Using Flash EEPROM Integrated Circuit Chips and Memory-Controller Systems	Wallace et al.	9/12/1995	9/2/1997	102(a) 102(e)		X	X	X	X		X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5,570,146	Digital Image Recording Device	Collette	5/31/1994	10/29/1996	102(b)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5,463,772	Transparent Peripheral File Systems With On-Board Compression, Decompression, and Space Management	Thompson et al.	4/23/1993	10/31/1995	102(b)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5,291,584	Methods and Apparatus for Hard Disk Emulation	Challa et al.	7/23/1991	3/1/1994	102(b)		X	X	X	X		X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5,226,168	Semiconductor Memory Configured to Emulate Floppy and Hard Disk Magnetic Storage Based Upon a Determined Storage Capacity of the Semiconductor Memory	Kobayashi et al.	4/24/1990	7/6/1993	102(b)		X	X	X	X		X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4,896,262	Emulation Device for Converting Magnetic Disc Memory Mode Signal From Computer Into Semiconductor Memory Access Mode Signal for Semiconductor Memory	Wayama et al.	2/22/1985	1/23/1990	102(b)		X	X	X	X		X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

EXHIBIT A
(OTHER PUBLICATIONS)

Publication Title	Inventor or Author	Publication or Issue Date M/D/Y	Category of Prior Art	399	1,11,14	1,14	11	1,11,14	1,11,14	1,11	5	1,11	3	1,11,14	1,11,14	1,11,14	1,11,14	1,11	1,11	1,11,14	1,11,14	1,11,14			1,14		11	1,11,14			2,15	7							
				449	1,17,18	1,18	17	1,17,18		1,17		1,17	16	1,17,18	1,17,18			1,17		1,17,18	1,17,18		1,17,18	15		1,18	17		1	17,18			2	6	7	8	9	12	13
				Code	A	B1	B2	C	C1	D	D*	E	E*	F	G	G1	G2	H	H1	I	J	K1	K2	K2*	L1	L2	L3	M	N1	N2	B*1	N*1	N*5	N*8	N*9	N*10	N*11	N*14	N*15
32MByte High Performance Solid State Disk	Unno, et al.	Apr-96	102(a) 102(b)		X	X	X	X		X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Nikon Digital Camera E 100 User's Manual	Nikon	1-Nov-96	102(a) 102(b)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SanDisk website (www.sandisk.com)	SanDisk	At least as early as 14-Nov-1996	102(a) 102(b)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TRI/+ Program Shippable Products Catalog	Digital Equipment Corp.	Oct-92	102(b)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	X

EXHIBIT A
(PRODUCT PRIOR ART)

Prior Art Reference	On sale or used in the U.S.	Category of Prior Art	399	1,11,14	1,14	11	1,11,14	11,1	1,11	5	1,11	3	1,11,14	1,11,14	1,11,14	1,11,14	1,11	1,11	1,11,14	1,11,14	1,11,14			1,14		11	1,11,14			2,15	7							
			449	1,17,18	1,18	17	1,17,18		1,17		1,17	16	1,17,18	1,17,18			1,17		1,17,18	1,17,18		1,17,18	15		1,18	17		1	17,18			2	6	7	8	9	12	13
			Code	A	B1	B2	C	C1	D	D*	E	E*	F	G	G1	G2	H	H1	I	J	K1	K2	K2*	L1	L2	L3	M	N1	N2	B*1	N*1	N*5	N*8	N*9	N*10	N*11	N*14	N*15
Better Light Company Scanning Camera Back (commercial embodiment of U.S. Pat. No. 5,570,146)	1994	102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DeskLab (Gradient Technology, Inc.)	1992	102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						X	X
DASM-AD14 (Analogic Corporation)	1992	102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						X	X
HP PhotoSmart Camera C5340	At least as early as March 17, 1997	102(a) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X	X	X	X	X	X				X	X	X	X
Hewlett-Packard 88396/88395 SCSI/Parallel Interface("JetLag")	At least as early as 1987	102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X								
Nikon E100 CoolPix Camera	At least as early as January 1997	102(a) 102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OKI 32 Mbyte PCMCIA ATA SSD card	At least as early as April 1996	102(a) 102(b) 102(g)		X	X	X	X		X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Polaroid PDC-2000	At least as early as 1996	102(a) 102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SanDisk (PCMCIA FlashDisk and CompactFlash Series)	At least as early as 1994	102(a) 102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SanDisk (FlashDrive Series)	At least as early as 1995	102(a) 102(b) 102(g)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Exhibit A63

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	U.S. Patent No. 5,854,945
A	**Independent Claim 1**: 1. An interface device for communication between	The '945 patent discloses a scanner 60 having an interface section 25a and a main scanner section 46. (5:36-62; 7:65-67; Fig. 6)
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The '945 patent discloses a host computer 20a with a multi-purpose input/output interface 24 and a driver for a keyboard. (3:33-67; 4:12-26; Fig. 6)
C	a data transmit/receive device,	The '945 patent discloses a scanner 60 having a main scanner section 46 and a bar code reader 54. (5:36-49; Fig. 6)
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The '945 patent discloses a main scanner section 46 having a bar code reader 54 that reads analog data. (1:11-15; 5:43-49; Fig. 6)
D	a processor;	The '945 patent discloses a main scanner section 46 having a microcontroller 64. (5:36-49; Fig. 6)
E	a memory;	The '945 patent discloses memory, such as RAM and a data buffer. (1:63-66; 6:61-65; 9:8-11)
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	The '945 patent discloses an input/output port 12 of the scanner 60 that interfaces with input/output port 24 of the host computer 20a. (5:9-13; 5:50-6:15; Fig. 6)

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	U.S. Patent No. 5,854,945
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The '945 patent discloses a main scanner section 46 that interfaces the bar code reader 54 with the interface section 25a. (5:36-49; Fig. 6)
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	The '945 patent discloses a main scanner section 46 having a bar code reader 54 and a bar code scanning decoder 63. (1:11-15; 5:36-49; Fig. 6)
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	The '945 patent discloses a scanner 60 that converts bar code information into digital information. (1:11-15; 5:36-49; 8:15-18; Fig. 6)
H	wherein the interface device is configured by the processor and the memory	The '945 patent discloses an interface device that is configured by the processor and memory to include first and second command interpreters. (5:36-49; 6:28-33; 8:16-36; 8:53-9:7; Fig. 6)
H1	to include a first command interpreter and a second command interpreter,	See above.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	The '945 patent discloses a host computer 20a that sends a signal to scanner 60. The scanner 60 communicates with the host computer 20a in the same way as a keyboard would communicate with the host computer 20a. (Abstract; 3:33-62; 4:12-17; 5:36-49; 6:28-33; 7:5-42; 8:16-36; 8:53-9:7; Fig. 6)

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	U.S. Patent No. 5,854,945
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	Same as above.
K1	which signals to the host device that it is an input/output device customary in a host device	Same as above.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	The '945 patent discloses a host computer 20a that communicates with the scanner 60. The '945 patent also discloses a software driver for a keyboard. (3:33-67; 4:12-26; Fig. 6)
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	The '945 patent discloses a scanner 60 that responds to commands from the host computer 20a, such as a request-to-send command, and to transmit data to the host computer 20a. (4:1-27; 8:1-9; 9:11-33; Fig. 6)
A	**Independent claim 11**: 11. An interface device for communication between	See '399 Claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The '945 patent discloses a host computer 20a having a multi-purpose input/output interface 24. The '945 patent also discloses a specific driver for the interface. (3:33-67; 4:12-26; Fig. 6)
C	a data transmit/receive device	See '399 Claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 Claim 1, row C1.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	U.S. Patent No. 5,854,945
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 Claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 Claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 Claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 Claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 Claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 Claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 Claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	The '945 patent discloses a host computer 20a that communicates with scanner 60. The '945 patent also discloses a specific driver for the multi-purpose interface. (3:33-67; 4:12-26; Fig. 6)
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 Claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 Claim 1, row B.

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	U.S. Patent No. 5,854,945
C	a data transmit/receive device	See '399 Claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 Claim 1, row C1
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 Claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 Claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 Claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 Claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 Claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 Claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 Claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 Claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 Claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	U.S. Patent No. 5,854,945
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The '945 patent discloses a scanner 60 having a data buffer that stores data that is ready to be sent to the host computer. (1:63-66; 9:8-11)
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The '945 patent discloses a main scanner section 60 having a signal processor. (5:36-49; 10:17-44; Fig. 6)
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	U.S. Patent No. 5,854,945
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 Claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 Claim 1, row C.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 Claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 Claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 Claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	
A	**Independent claim 17**: 17. An interface device for communication between	See '399 Claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 Claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 Claim 1, row C.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 Claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 Claim 1, row H.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 Claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 Claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '449 Claim 1, row L2
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
A	**Independent Claim 18**: 18. A method of communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 Claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 Claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 Claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 Claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 Claim 1, row I.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 Claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 Claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 Claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	The '945 patent discloses a scanner 60 that formats and stores data in 11 bit blocks. (8:59-62)
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	U.S. Patent No. 5,854,945
E*	**Dependent Claim 16:** 16. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	The '945 patent discloses a main scanner section 46 having a data buffer that stores data that is ready to be sent to the host computer 20a. (1:63-66; 9:8-11)

Exhibit A64

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	NIKON E100
A	**Independent Claim 1**: 1. An interface device for communication between	The E100 camera includes an interface device that is formed at least in part by a processor and memory.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The E100 camera can be connected to a PC that utilizes drivers for a variety of input/output devices, such as drivers for ATA disk drives, and that has a multipurpose PCMCIA interface.
C	a data transmit/receive device,	The E100 camera includes a lens unit and a CCD.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The lens unit and CCD of the E100 camera provide analog data.
D	a processor;	The E100 camera includes a processor, including a CPU and a digital signal processor.
E	a memory;	The E100 includes memory, including flash memory and DRAM.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	The E100 camera includes a first connecting device comprising a PCMCIA card circuit for interfacing the interface device with a multipurpose PCMCIA interface on a PC.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The E100 camera includes a second connecting device comprising a sampling circuit and an analog to digital converter. This circuitry interfaces analog data provided by the CCD image sensor with the interface device. The E100 includes a Correlated Double Sampler (CDS).

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	NIKON E100
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	The E100 camera includes a sampling circuit, such as a Correlated Double Sampler (CDS), for sampling the analog data provided by the CCD image sensor.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	The E100 camera includes an analog-to digital converter (A/D converter) that converts analog data supplied by the CDS into digital data.
H	wherein the interface device is configured by the processor and the memory	The E100 camera includes an interface device that is configured by the processor and memory to include first and second command interpreters.
H1	to include a first command interpreter and a second command interpreter,	See above.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	When the E100 camera is plugged in to a PCMCIA socket on a PC, the PC sends a signal to the E100 camera to determine at least the type of device attached to the multipurpose PCMCIA interface of the PC. This signal is an inquiry from the PC.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	The E100 camera sends a signal to the PC, regardless of the type of data transmit/receive device attached to the interface device, that the E100 camera is a disk drive.
K1	which signals to the host device that it is an input/output device customary in a host device	See above.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	Upon receiving information that the E100 camera is a disk drive, the PC communicates with the interface device of the E100 camera by a software driver for disk drives, such as a driver for an ATA disk drive.

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	NIKON E100
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	The second command interpreter of the E100 camera is configured to interpret data request commands for disk drives. For example, the second command interpreter is configured to interpret ATA commands. The second command interpreter, for example, interprets the READ SECTOR(S) command (operation code 20h). The E100 camera interprets such data request commands and provides the requested digital data to the PC.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 Claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The E100 camera can be connected to a PC that has a multipurpose PCMCIA interface and a specific driver for the multipurpose PCMCIA interface.
C	a data transmit/receive device	See '399 Claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 Claim 1, row C1.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 Claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 Claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 Claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 Claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 Claim 1, row H1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	NIKON E100
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 Claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 Claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	The PC communicates with the interface device by a specific driver for the multipurpose PCMCIA interface.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 Claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 Claim 1, row B.
C	a data transmit/receive device	See '399 Claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 Claim 1, row C1
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 Claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 Claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 Claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 Claim 1, row G2.

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	NIKON E100
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 Claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 Claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 Claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 Claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 Claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	The PC includes a hard disk driver, such as a driver for an ATA disk drive. The PC receives a signal from the E100 camera that signals to the PC that the E100 camera is a disk drive.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The E100 camera includes memory, including flash memory and DRAM, that buffers data acquired by the data transmit/receive device until it is transferred to the PC.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The E100 camera includes a digital signal processor.

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	NIKON E100
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	The E100 camera has a root directory and stores files that can be accessed by the PC.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399s Claim Language	NIKON E100
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	The PC includes a driver for a hard disk drive, such as a driver for an ATA disk drive.

Code	USP 6,895,449s Claim Language	NIKON E100
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 Claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 Claim 1, row C.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 Claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 Claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 Claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	NIKON E100
K2	which signals to the host device that it is a storage device customary in a host device,	The E100 camera sends a signal to the PC, regardless of the type of data transmit/receive device attached to the interface device, that the E100 camera is a disk drive.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	Upon receiving information that the E100 camera is a disk drive, the PC communicates with the interface device of the E100 camera by a software driver for disk drives, such as a driver for an ATA disk drive.
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	The interface device of the E100 camera simulates a virtual file system, including simulating a master boot record, a boot sector and a sequence of sectors comprising at least one file allocation table, at least one directory, and files, as would be found on a disk drive having rotating media.
A	**Independent claim 17**: 17. An interface device for communication between	See '399 Claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 Claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 Claim 1, row C.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 Claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 Claim 1, row H.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	NIKON E100
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 Claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 Claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '449 Claim 1, row L2
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	The interface device of the E100 camera simulates a virtual file system, including simulating a master boot record, a boot sector and a sequence of sectors comprising at least one file allocation table, at least one directory, and files, as would be found on a disk drive having rotating media.

Code	USP 6,895,449s Claim Language	NIKON E100
A	**Independent Claim 18**: 18. A method of communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 Claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 Claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 Claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 Claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 Claim 1, row I.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	NIKON E100
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 Claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 Claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 Claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	The interface device of the E100 camera simulates a virtual file system, including simulating a master boot record, a boot sector and a sequence of sectors comprising at least one file allocation table, at least one directory, and files, as would be found on a disk drive having rotating media.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	The E100 camera may include configuration files and files used to transfer data from the data transmit/receive device to the PC.
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	NIKON E100
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	In response to a request from the PC to read the first sector on the simulated disk drive, the processor of the E100 camera is arranged to send a virtual boot sequence to the PC. For example, in response to the request for the first sector, the E100 camera provides 512 bytes of data which contain information typically found in a master boot record, including information for at least one partition.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	The E100 camera provides the PC with a boot sequence including a master boot record and a boot sector, which includes a starting location and the length of a file allocation table.
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	In response to a request from the PC to display a directory, the E100 camera provides the PC with a file allocation table and a directory structure.
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	In response to a request from the PC to read or store data, the E100 camera provides the PC with a file allocation table and a directory structure.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	NIKON E100
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	The E100 camera includes a file allocation table. The number of the first cluster of a file is in the directory. The READ SECTOR(S) command supports reading a single logical block address comprising a single 512 byte sector, or a starting logical block address plus a transfer length comprising a range of blocks of data.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	The E100 camera includes a processor that formats digital data into 512 byte blocks.

PRIOR ART CLAIM CHART

Code	USP 6,895,449s Claim Language	NIKON E100
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	The E100 camera sends a signal to the PC that the E100 camera is a disk drive.
E*	**Dependent Claim 16:** 16. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	The E100 camera includes memory, including flash memory and DRAM, that permits time independence from when a photograph is captured and when it is transferred to the PC.

Exhibit A65

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
A	**Independent Claim 1**: 1. An interface device for communication between	"An interface transfers the input stored by the memory to the host computer." Col. 1, ll. 37-39. "ATA PCMCIA controller 14 provides an interface between PCMCIA card 12 and the host computer." Col. 4, ll. 1-7. *See also* Figs. 4, 5.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	Portable computer 31. *See, e.g.*, Fig. 4; Col. 1, ll. 32-46; Col. 3, ll. 14-22; Col. 4, ll. 1-39. The handwritten input "files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system . . . to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, l. 23 – col. 4, l. 7; Fig. 5. "FIG. 4 illustrates placement of PCMCIA card 12 into a standard PCMCIA slot of a portable computer 31." Col. 3, ll. 14-15. *See also* Figs. 4-5; Col. 1, ll. 58-67; Col. 4, ll. 1-7.
C	a data transmit/receive device,	Write-on pad 13. *See, e.g.*, Figs. 1-3, 5-6; Col. 1, ll. 5-8; Col. 2, l. 31 – col. 3, l. 22.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
C1	the data transmit/receive device being arranged for providing analog data, comprising:	"The present invention concerns computing devices and pertains particularly to a card detachable from a computing system which is capable of capturing graphics such as, for example a handwritten signature." Col. 1, ll. 5-8. "The card includes a write-on pad for receiving input from a stylus." Col. 1, ll. 35-36. "Write-on pad 13 is used to digitize the strokes of a pen or stylus." Col. 2, ll. 36-37. *See also* Figs. 1-3, 5; Col. 1, ll. 32-41; Col. 2, ll. 2-5; Col. 2, l. 31 – col. 3, l. 22.
D	a processor;	The detachable card contains an ATA PCMCIA controller 44. Fig. 5; Col. 3, ll. 34-37; Col. 4, ll. 1-7. The detachable card contains a microcontroller 42. Figs. 5, 6; Col. 3, ll. 23-33; Col. 4, ll. 8-26.
E	a memory;	The detachable card contains memory for storing graphics files and other information. Figs. 5-7; Col. 3, ll. 34-67; Col. 4, ll. 27-39. The microcontroller 42 has random-access memory and read-only memory. Figs. 5, 6; Col. 3, ll. 23-33; Col. 4, ll. 8-39.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	"FIG. 4 illustrates placement of PCMCIA card 12 into a standard PCMCIA slot of a portable computer 31." Col. 3, ll. 14-15. *See also* Figs. 4, 5; Col. 1, ll. 58-67; Col. 4, ll. 1-7.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The write-on pad 13 connects to the microcontroller. Fig. 5.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	"Write-on pad 13 is used to digitize the strokes of a pen or stylus," and necessarily includes a sampling circuit. Col. 2, ll. 36-37. S*ee also* Figs. 1-3, 5; Col. 2, l. 31-col. 3, l. 38.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	"Write-on pad 13 is used to digitize the strokes of the pen or stylus," and necessarily includes an analog-to-digital converter. Col. 2, ll. 36-37. *See also* Figs. 1-3, 5; Col. 2, l. 31-col. 3, l. 38.
H	wherein the interface device is configured by the processor and the memory	The interface device is configured to include first and second command interpreters as set forth more fully below. *See, e.g.,* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.
H1	to include a first command interpreter and a second command interpreter,	The interface device is configured to include first and second command interpreters as set forth more fully below. *See, e.g.,* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	"In the preferred embodiment, for ease of interface with the host system, memory within the card is organized in a standard ATA style format. This allows memory not used for storage of handwritten messages to be available to the portable computer for general storage." Col. 1, ll. 41-45. "Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	"In the preferred embodiment, for ease of interface with the host system, memory within the card is organized in a standard ATA style format. This allows memory not used for storage of handwritten messages to be available to the portable computer for general storage." Col. 1, ll. 41-45. "Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
K1	which signals to the host device that it is an input/output device customary in a host device	"In the preferred embodiment, for ease of interface with the host system, memory within the card is organized in a standard ATA style format. This allows memory not used for storage of handwritten messages to be available to the portable computer for general storage." Col. 1, ll. 41-45. "Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	"The use of a standard PCMCIA cards allows signature verification to be performed by a variety of personal computers without adding expensive additional peripherals." Col. 1, ll. 61-63. "In the preferred embodiment, for ease of interface with the host system, memory within the card is organized in a standard ATA style format. This allows memory not used for storage of handwritten messages to be available to the portable computer for general storage." Col. 1, ll. 41-45. "Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58. *See also* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	"The use of a standard PCMCIA cards allows signature verification to be performed by a variety of personal computers without adding expensive additional peripherals." Col. 1, ll. 61-63. "In the preferred embodiment, for ease of interface with the host system, memory within the card is organized in a standard ATA style format. This allows memory not used for storage of handwritten messages to be available to the portable computer for general storage." Col. 1, ll. 41-45. "Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58. *See also* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	Portable computer 31. *See, e.g.*, Fig. 4; Col. 1, ll. 32-46; Col. 3, ll. 14-22; Col. 4, ll. 1-39. The handwritten input "files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system . . . to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, l. 23 – col. 4, l. 7; Fig. 5. "FIG. 4 illustrates placement of PCMCIA card 12 into a standard PCMCIA slot of a portable computer 31." Col. 3, ll. 14-15. *See also* Figs. 4-5; Col. 1, ll. 58-67; Col. 4, ll. 1-7.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	"When PCMCIA card 12 is connected to the host system, PCMCIA controller 44 communicates with the host computer through a standard PCMCIA bus 46." Col. 4, ll. 2-5. *See also* Figs. 4, 5; Col. 1, ll. 58-67; Col. 3:38-58; Col. 4, ll. 1-7.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	"Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58. *See also* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	"Microcontroller 42 has, for example, 128 bytes of on-board random access memory (RAM)... [and] is powered using battery 45." Col. 3, ll. 29-32. "Memory 43 is, for example, configured as an ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application." Col. 3, ll. 38-40. *See also* Fig. 5, 6; Col. 4, ll. 8-39; Col. 6, ll. 16-30.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The detachable card contains an ATA PCMCIA controller 44. Fig. 5; Col. 3, ll. 34-37; Col. 4, ll. 1-7. The detachable card contains a microcontroller 42. Figs. 5, 6; Col. 3, ll. 23-33; Col. 4, ll. 8-26.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	The handwritten inputs are placed in the memory of the detachable card by using a standard disk operating system pointer or a file allocation table system. Col. 3, l. 23 – col. 4, l. 7.
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	"Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58. *See also* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,974,161
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	See '399 claim 2, row B*1.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
K2	which signals to the host device that it is a storage device customary in a host device,	"In the preferred embodiment, for ease of interface with the host system, memory within the card is organized in a standard ATA style format. This allows memory not used for storage of handwritten messages to be available to the portable computer for general storage." Col. 1, ll. 41-45. "Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	"The use of a standard PCMCIA cards allows signature verification to be performed by a variety of personal computers without adding expensive additional peripherals." Col. 1, ll. 61-63. "In the preferred embodiment, for ease of interface with the host system, memory within the card is organized in a standard ATA style format. This allows memory not used for storage of handwritten messages to be available to the portable computer for general storage." Col. 1, ll. 41-45. "Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58. *See also* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	"The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 53-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	"The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 53-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	"Additional advantages of the use of ATA format is that the host computer can store a configuration file for microcontroller 42 by storing a file in memory 43 within a special predetermined name (e.g., config.mc) which microcontroller 42 recognizes. The configuration file is used, for example, to set up special fields on PCMCIA card 12." Col. 3, ll. 59-64.
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	"The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 53-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	"The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 53-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	"The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 53-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	"The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 53-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	"When microcontroller 42 places handwritten inputs in memory 43, microcontroller puts them in a standard graphics file format. For example, microcontroller 42 places handwritten inputs in memory 43 within Windows bit map (BMP) files or within personal computer exchange (PCX) files. The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 48-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	"When microcontroller 42 places handwritten inputs in memory 43, microcontroller puts them in a standard graphics file format. For example, microcontroller 42 places handwritten inputs in memory 43 within Windows bit map (BMP) files or within personal computer exchange (PCX) files. The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system." Col. 3, ll. 48-55. *See also* Figs. 5, 7; Col. 3, l. 23 – col. 4, l. 7.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,974,161
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	"Memory 43 is, for example, configured as a ATA-style mass storage memory which includes 1 to 80 megabytes of flash or RAM memory, depending on the application…. The advantage of configuring memory 43 in ATA format is that this is a standard format for both electromechanical and semiconductor PCMCIA disk drive." Col. 3, ll. 38-48. "The files are stored within memory 43 using a standard disk operating system (OS) pointer or a file allocation table (FAT) system. This allows the host system, for example, portable computer 31, to access the handwritten inputs stored within the PCMCIA card 12 without special drivers of any kind." Col. 3, ll. 53-58. *See also* Fig. 5; Col. 3, l. 23 – col. 4, l. 7.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A66

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
A	**Independent Claim 1**: 1. An interface device for communication between	The '901 patent discloses an interface device for communication between electrically erasable and programmable read-only memory ("EEPROM") and a host computer. 2:32-41; Fig. 3.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The '901 patent discloses a host computer system which communicates with disk drives via a computer bus interface such as IDE. 3:8-11; 7:46-55; Figs. 1, 3.
C	a data transmit/receive device,	The '901 patent discloses data transmit/receive devices in the form of EEPROM. 1:55-59; 2:66-3:60; 8:56-11:39; Figs. 1-3; 13B; 14.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	
D	a processor;	The interface device of the '901 patent includes a processor. 8:33-55; Fig. 13A.
E	a memory;	The interface device of the '901 patent includes memory. 8:33-55; Fig. 13A.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	"A connector 17, provided at an end of a ribbon cable 19, is adapted to interconnect the conductors of the cable 19 to the row of pins 15. Another end (not shown) of the ribbon cable 19 is connectable with a microcomputer system bus. Alternatively, the controller board 11 could be provided with a different type of connector that is adapted to fit directly into an expansion slot of a microcomputer system." 4:4-11. "[A] controller 133 includes a disk drive interface 411 that utilizes a commercially available peripheral interface chip 415 that is connected to the lines 138 which are, in turn, connected to the host computer system through mating connector portions." 8:36-41. *See also* 3:65-4:38; 8:33-65; Figs. 1-3; 13A, 13B.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The interface device of the '901 patent includes a socket which accepts EEPROM cards. 3:65-4:38; Figs. 1-3. "Each of the memory chips is connected with the controller 133 over lines 135." 8:60-62. *See also* 8:33-65; Figs. 13A; 13B.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	
H	wherein the interface device is configured by the processor and the memory	"A microprocessor controls the peripheral interface and memory controller over an internal bus." 8:43-45; *see also* 9:58-11:38; Figs. 13A, 14, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
H1	to include a first command interpreter and a second command interpreter,	"[T]he packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. The interface device of the '901 patent also includes circuitry for interpreting read and write commands from the host computer. 9:10-11:38; Figs. 14, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. "The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. "This translation is most easily accomplished by an algorithm calculation or reference to a look up table that have a one-to-one correspondence between the disk address and the EEPROM address." 10:67-11:3. *See also* 7:45-55; 9:10-11:38; Figs. 14, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above
K1	which signals to the host device that it is an input/output device customary in a host device	See above
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	See above
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	"The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. The interface device of the '901 patent interprets commands from the host computer as READS or WRITES, then initiates data transfers. 9:10-11:38; Figs. 14, 16, 17, 17A, 17B.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The '901 patent discloses a host computer system which communicates with disk drives via a computer bus interface such as IDE. 7:46-55.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. *See also* 7:45-55; 9:10-11:38; Figs. 14, 16, 17, 17A, 17B.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. *See also* 7:45-55; 9:10-11:38; Figs. 14, 16, 17, 17A, 17B.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	"The buffer memory 413 is static RAM and provides temporary storage of data being transferred between the memory unit 123 and the host computer system." 8:48-51; Fig. 13A. *See also* 9:10-11:39; Figs. 15; 17B.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The interface device of the '901 patent includes a processor. 8:33-55; Fig. 13A.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. "The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. "[T]he sector 211 is shown to be formed of four rows 213 of memory cells, each row having a length 215 of enough cells to store 128 bytes. Thus, the sector 211 stores 512 bytes, the same capacity as a sector of disk storage according to prevailing standards." 9:10-14. *See also* 7:45-55; 9:10-11:38; Figs. 14, 15, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,663,901
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. *See also* 7:45-55; 9:10-11:38; Figs. 14, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,663,901
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,663,901
K2	which signals to the host device that it is a storage device customary in a host device,	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. "The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. *See also* 7:45-55; 9:10-11:38; Figs. 14, 16, 17, 17A, 17B.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	See above
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. "The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. "[T]he sector 211 is shown to be formed of four rows 213 of memory cells, each row having a length 215 of enough cells to store 128 bytes. Thus, the sector 211 stores 512 bytes, the same capacity as a sector of disk storage according to prevailing standards." 9:10-14. *See also* 7:45-55; 9:9-11:38; Figs. 14, 15, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. "The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. "[T]he sector 211 is shown to be formed of four rows 213 of memory cells, each row having a length 215 of enough cells to store 128 bytes. Thus, the sector 211 stores 512 bytes, the same capacity as a sector of disk storage according to prevailing standards." 9:10-14. *See also* 7:45-55; 9:9-11:38; Figs. 14, 15, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. "The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. "[T]he sector 211 is shown to be formed of four rows 213 of memory cells, each row having a length 215 of enough cells to store 128 bytes. Thus, the sector 211 stores 512 bytes, the same capacity as a sector of disk storage according to prevailing standards." 9:10-14. *See also* 7:45-55; 9:10-11:38; Figs. 14, 15, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	See above
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	See above
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	See above
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	"The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. "[T]he sector 211 is shown to be formed of four rows 213 of memory cells, each row having a length 215 of enough cells to store 128 bytes. Thus, the sector 211 stores 512 bytes, the same capacity as a sector of disk storage according to prevailing standards." 9:10-14. *See also* 7:45-55; 9:10-11:38; Figs. 14, 15, 16, 17, 17A, 17B.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	"The address from the host computer designates a disk drive head that is to be utilized for the data transfer, a data cylinder, a beginning sector number on that cylinder, and the number of contiguous sectors (sector count) in which the data is being read or written. The memory controller translates that address . . . into a chip number, the quadrant on the chip and sector of memory cells within the quadrant to be addressed." 9:45-54. "[T]he sector 211 is shown to be formed of four rows 213 of memory cells, each row having a length 215 of enough cells to store 128 bytes. Thus, the sector 211 stores 512 bytes, the same capacity as a sector of disk storage according to prevailing standards." 9:10-14. *See also* 7:45-55; 9:10-11:38; Figs. 14, 15, 16, 17, 17A, 17B.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,663,901
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	"[A] flash EEPROM system is provided with physical form factors which match those of industry standard floppy and hard disk drives, along with an electrical interface that emulates such drives." 2:50-54. "No extra adaptation is required to use such a non-volatile, non-mechanical mass memory in computer systems whose hardware and software operating systems are designed to accept and use disk systems." 2:61-64. "Thus, the packaged EEPROM system as part of the present invention includes controller circuits in order that the unit appears to the computer system as a disk drive." 7:52-55. *See also* 7:45-55; 9:10-11:38; Figs. 14, 15, 16, 17, 17A, 17B.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A67

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Pat. No. 5,570,146
A	**Independent Claim 1**: 1. An interface device for communication between	The '146 discloses a storage and processing unit providing an interface between a camera and a host computer. 2:11-25.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The '146 discloses a host device such as a Macintosh computer using either a SCSI or serial port interface. 9:28-21, 36-39, 46-48.
C	a data transmit/receive device,	The '146 discloses a digital image recording device (5:35-39) including a bidirectional interface (7:66-8:22; 8:67-9:2).
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The '146 discloses a digital image recording device for providing analog data. 7:45-48.
D	a processor;	The '146 discloses a microcontroller for controlling the CCD array and a digital signal processor for performing image calculations. 8:33-37; 8:60-9:6.
E	a memory;	The '146 discloses memory and a disk drive. 8:26-30.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	The '146 discloses a first connecting device for interfacing with the host Macintosh computer via a SCSI interface. 9:27-30, 36-40.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The '146 discloses a second connecting device for interfacing with the CCD and motors of the digital image recording device. 7:66-8:22.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	The '146 discloses a bidirectional interface circuit for sampling the analog signals from the CCD. 7:45-48; 7:66-8:16.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	The '146 includes analog to digital converters for converting data from the CCDs into digital form. 7:66-8:16.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Pat. No. 5,570,146
H	wherein the interface device is configured by the processor and the memory	The '146 discloses a processor and memory for configuring the interface. 8:26-9:51.
H1	to include a first command interpreter and a second command interpreter,	The '146 discloses a first command interpreter for interpreting SCSI commands from a host computer. 8:26-9:51.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	The '146 discloses communicating with the host via the SCSI, or optionally serial, protocol. 9:36-39, 46-48. The storage and processing unit acts as a conventional SCSI device.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above.
K1	which signals to the host device that it is an input/output device customary in a host device	SCSI was customary in Macintosh computers of the time.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	Macintosh computers at that time included SCSI drivers.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	The '146 discloses a second command interpreter for commanding the digital image recording device to transfer data. 8:61-9:6.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The host Macintosh computer uses a SCSI port and driver. 9:28-30, 36-39.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Pat. No. 5,570,146
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	The host Macintosh computer uses a SCSI port and driver. 9:28-30, 36-39. The storage and processing unit acts as a conventional SCSI device.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Pat. No. 5,570,146
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	The host Macintosh computer uses a SCSI port and driver. 9:28-30, 36-39. The storage and processing unit acts as a conventional SCSI device.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The '146 disclose storage for buffering data to be transferred to the host device. 8:26-44.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Pat. No. 5,570,146
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The '146 discloses a digital signal processor and a microcontroller in the storage and processing unit. 8:33-44; 8:61-9:6.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	The '146 discloses a storage and processing unit that includes a hard disk drive having a root directory and files. 8:26-29.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Pat. No. 5,570,146
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	The host Macintosh computer uses a SCSI port and driver. 9:28-30, 36-39. SCSI ports and drivers were customary in Macintosh computers of the time.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Pat. No. 5,570,146
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	The host Macintosh computer uses a SCSI port and driver. 9:28-30, 36-39. SCSI ports and drivers were customary in Macintosh computers of the time.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	The host Macintosh computer uses a SCSI port and driver. 9:28-30, 36-39. SCSI ports and drivers were customary in Macintosh computers of the time.
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	The '146 discloses a storage and processing unit with a hard disk drive having a file system and directory structure. 8:26-29.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Pat. No. 5,570,146
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	The '146 discloses a storage and processing unit with a hard disk drive having file allocation table. 8:26-29.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Pat. No. 5,570,146
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	The '146 discloses a storage and processing unit with a hard disk drive having configuration files. 8:26-29.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Pat. No. 5,570,146
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	The '146 discloses a storage and processing unit with a hard disk drive having a boot sequence. 8:26-29.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	The '146 discloses a storage and processing unit with a hard disk drive having a file allocation table with a specific length, starting position and a number of sectors. 8:26-29.
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	The '146 discloses a storage and processing unit with a hard disk drive having a file allocation table and directory structure. 8:26-29.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Pat. No. 5,570,146
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	The '146 discloses a storage and processing unit with a hard disk drive having a file allocation table and directory structure. 8:26-29. Additionally, the '146 discloses enough storage to perform field and location photography, thus many images may be stored on the device and transferred to the host. 8:29-32.
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	The '146 discloses storing captured images on a hard disk, thus required arranging the data into blocks of predetermined size for the hard disk. 8:26-29.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Pat. No. 5,570,146
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	The '146 discloses storing captured images on a hard disk, thus required arranging the data into blocks of predetermined size for the hard disk. 8:26-29.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	The '146 discloses a storage and processing unit including a hard drive. 8:26-29.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A68

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
A	**Independent Claim 1**: 1. An interface device for communication between	The '772 Patent discloses a TPFS, an interface between a mass storage peripheral device and a host computer. The TPFS is a "microprocessor based control system which receives file oriented commands from a host and subsequently: (a) issues a suitable sequence of commands to the peripheral; and (b) sends or receives data associated with file oriented commands." 16:1-19.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The '722 Patent discloses a host computer system which communicates with mass storage peripherals via a SCSI interface. 17:36-55; Figs. 1, 2, 3; 27:40-44.
C	a data transmit/receive device,	The '772 Patent discloses a data/transmit receive device in the form of a mass storage peripheral. 20:54-67

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The mass storage peripheral has analog components such as sensors and coverters: "Typically, interpreter 19 is also implemented in firmware, and it oversees the actual conversion between the programmatically (and digitally) conveyed/expressed commands or data and the actual analog signals that eventually inhabit the tangible peripheral mechanism. . . . The mechanism controller 20 is electrically coupled to the actual peripheral mechanism (drive motors, heads, amplifiers, sensors, etc.) and its medium (or media) 21." 19:22-29. Additionally, the '772 Patent contemplates a myriad of potential data/transmit receive devices. "The random access mass storage peripheral may be an entirely conventional peripheral, or it may be of a type not yet known." 20:54-58.
D	a processor;	The interface device of the '772 Patent includes a processor. 21:7-12; Fig. 2.
E	a memory;	The interface device of the '772 Patent includes a memory. 21:7-12; Fig. 2.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	"Interface cable 6 connects an interface 24 to the interface 4 of the host computer system 2; interface 24 is thus referred to as the host side interface of TPFS machine 23 . . . As with the case for FIG. 1, these various interfaces may be of any suitable type, with SCSI and IEEE 488 being at the present time the most prominent examples." 20:39-53.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	"In like fashion interface cable 26 connects an interface 25 to an interface 28 of the random access mass storage peripheral 27; interface 25 is thus referred to as the peripheral side interface. As with the case for FIG. 1, these various interfaces may be of any suitable type, with SCSI and IEEE 488 being at the present time the most prominent examples." 20:39-53.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	The '772 patent inherently includes a sampling circuit for sampling the signals from the sensors in the mass storage perpherial. 19:16-29.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	The interface device of the '772 Paetnt includes an analog to digital converter for converting "between the programatically (and digitally) conveyed/expressed commands or data and the actual analog signals" in the peripheral mechanism, such as sensors. 19:16-29.
H	wherein the interface device is configured by the processor and the memory	The CPU configures itself for communicating between the host and mass storage peripheral by executing code stored in its memory. 21:7-19; 19:2-17; 19; 30-33.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
H1	to include a first command interpreter and a second command interpreter,	The interface device of the '772 Patent includes interpreters for communicating with the host, on the one hand, and the mass storage peripheral on the other hand. 18:47-19:16; 29:15-30:5; Appendix A, B, C.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	The interface device acts as a virtual file system (VFS) such as that found in a storage device regardless of what peripheral device is attached. 16:1-27.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above.
K1	which signals to the host device that it is an input/output device customary in a host device	The TPFS communicates using a general purpose generic file operation description language over a SCSI interface. 18:47-58.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	The host device communicates with the TPFS using a general purpose generic file operation language. 18:47-58; Appendix A, B, C.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	The TPFS receives read commands, translates them into its own internal data structure, gathers the data, and returns it to the host. 27:62-28:26; Appendix A, B, C.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The '772 Patent includes a host with a SCSI interface and driver. It also contains the standard VFS file system using a general purpose, generic file operation description language. 18:47-58; Appendix A.
C	a data transmit/receive device	See '399 claim 1, row C.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 1, row L1
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	The TPFS includes common storage system drives. *E.g.* Appendix D, E. The TPFS emulates a VFS. 19:66-20:2.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The TPFS includes memory. See e.g. Fig, 1, item 16; Fig. 2, item 31; Fig. 3, item 70.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The interface device of the '772 Patent includes a processor. 21:7-12; Fig. 2.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	"The TPFS (transparent peripheral file system) thus makes the the peripheral appear to the host as if it contains its own file system . . . ." 16:11-19; 23:34-24:17; *see also* Appendix A, B, C.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent 5,463,772
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	The drivers in the '772 patent are for mass storage devices including hard drives. *E.g.* Appendix D, E. Additionally, the host uses a VFS, a standard file system. 16:19-27.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,463,772
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	The interface device acts as a peripheral file system such as that found in a storage device regardless of what peripheral device is attached. 16:1-27.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	The host communicates with the interface device using VFS and SCSI drivers. 18:47-58; Appendix A, B.
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	"First, TPFS 17 is itself a virtual file system in its own right . . . ." 19:66-67.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,463,772
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	"First, TPFS 17 is itself a virtual file system in its own right . . . ." 19:66-67; see also 21:27-24:25; 32:25-61.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,463,772
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	The file system includes a collection of drivers, which consist of executable code for converting vfs commands and associated streams of data into sequences of peripheral-specific commands and for formatting data coming from the peripheral. 21:7-19; 19:2-23; Appendix B, C.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,463,772
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	In response to a request from the host, the TPFS retrieves the contents of the first record. Appendix D.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	Appendix D, *e.g.* p. 180-83, 187-88, 192-93.
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	Appendix D, *e.g.* p. 1-31; 49-53, 187-188; Appendix A, B.
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	Appendix D, p. 1-31; 49-53, 187-88; Appendix A, B.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,463,772
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	The TPFS formats data from the host into an appropriate size for the peripheral device and vise versa. *E.g.* 19:2-15.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	The TPFS formats data from the host into an appropriate size for the peripheral device and vise versa. *E.g.* 19:2-15.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent 5,463,772
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	The drivers of the TPFS are functionally coupled with a peripheral command interpreter that converts between host commands and commands for controlling drive motors, heads, amplifiers, sensors, etc. 19:16-29.
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	The peripheral device may include a hard disk. 20:54-60.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A69

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
A	**Independent Claim 1**: 1. An interface device for communication between	The '584 patent discloses "a solid state hard disk having a disk controller, a data buffer, a microcontroller, and a disk emulator section. The disk emulator section includes a disk emulator interface and a memory array." Abstract; *see also* 3:52-8:20; Figs. 1-4, 6-10, 12.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	"The solid state disk 100 includes a disk controller 114, which interfaces to a SCSI host interface bus . . . in a manner compatible with ANSI specification X3.131-1986." 3:53-56; Fig. 1; *see also* 3:53-4:44.
C	a data transmit/receive device,	The '584 patent discloses a data transmit/receive device in the form of a solid state memory array. Abstract; 7:36-10:8; Figs. 1, 5-8, 11A-11D, 12.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	
D	a processor;	"Microcontroller 118 includes microprocessor 300, which is any suitable microprocessor . . . ." 5:29-32; *see also* 5:19-7:35; Figs. 1, 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
E	a memory;	"The bi-directional data buffer interface bus DBI connects directly to a 32 Kbyte static RAM 116 for assembly of blocks of data from the Host for transfer to the solid state memory disk 100, or from the solid state disk 100 for transfer to the Host." 4:18-22. "Three devices reside in the external memory address map of the microcontroller 118" -- SCSI disk controller 114, disk emulator interface 122, and a scratchpad memory 302." 5:32-38. "In addition to the external scratchpad SRAM 302 for dynamic variables and system parameters, the microprocessor 300 also requires between 8 and 16 Kbytes of program memory to implement the SCSI command set and protocol. An external program memory 304, which is preferably EPROM memory, is used for this function . . . ." 5:53-62. *See also* 4:18-7:35; Figs. 1, 2, 3, 4.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	"The solid state disk 100 includes a disk controller 114, which interfaces to a SCSI host interface bus . . . ." 3:53-56; Fig. 1; *see also* 3:53-4:44.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	"The memory interface 410, which is connected to the sequencer and sector-formatter 406 over suitable buses, interfaces to memory array 124." 7:13-16; *see also* 6:60-9:33; Figs. 1, 4, 6.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
H	wherein the interface device is configured by the processor and the memory	"[T]he control signals for the memory 116 are supplied by the disk controller 114." 4:45-46. "In addition to the external scratchpad SRAM 302 for dynamic variables and system parameters, the microprocessor 300 also requires between 8 and 16 Kbytes of program memory to implement the SCSI command set and protocol. An external program memory 304, which is preferably EPROM memory, is used for this function . . . ." 5:53-62. *See also* 4:45-7:35; Figs. 1, 2, 3, 4.
H1	to include a first command interpreter and a second command interpreter,	See below

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. *See also* Abstract; 4:45-17:22; Figs. 2-12.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above
K1	which signals to the host device that it is an input/output device customary in a host device	See above

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	See above
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See above
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	"The solid state disk 100 includes a disk controller 114, which interfaces to a SCSI host interface bus . . . ." 3:53-56; Fig. 1; *see also* 3:53-4:44.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	"The solid state disk 100 includes a disk controller 114, which interfaces to a SCSI host interface bus . . . in a manner compatible with ANSI specification X3.131-1986." 3:53-56; Fig. 1; "In addition to the external scratchpad SRAM 302 for dynamic variables and system parameters, the microprocessor 300 also requires between 8 and 16 Kbytes of program memory to implement the SCSI command set and protocol." 5:53-62. *See also* 3:53-4:44; 5:19-7:35; 17:11-22; Figs. 1-4.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. *See also* 4:45-17:22; Figs. 2-12.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	"The bi-directional data buffer interface bus DBI connects directly to a 32 Kbyte static RAM 116 for assembly of blocks of data from the Host for transfer to the solid state memory disk 100, or from the solid state disk 100 for transfer to the Host." 4:18-22. *See also* 4:18-7:35; Figs. 1, 2, 3, 4.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	"Microcontroller 118 includes microprocessor 300, which is any suitable microprocessor . . . ." 5:29-32; *see also* 5:19-7:35; Figs. 1, 2, 3.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. "The disk emulator section 120 emulates a twenty megabyte (20 MB) magnetic media hard disk having 512 bytes per sector, 17 sectors per track, 1024 tracks per head, and three heads." 7:36-39. *See also* 4:45-17:22; Figs. 2-12.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,291,584
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. *See also* 4:45-17:22; Figs. 2-12.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
K2	which signals to the host device that it is a storage device customary in a host device,	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. *See also* 4:45-17:22; Figs. 2-12.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	See above
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. "The disk emulator section 120 emulates a twenty megabyte (20 MB) magnetic media hard disk having 512 bytes per sector, 17 sectors per track, 1024 tracks per head, and three heads." 7:36-39. *See also* 4:45-17:22; Figs. 2-12.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. *See also* 4:45-17:22; Figs. 2-12.
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. "An entire sector of data, 512 bytes or 4096 bits, is written to or read from the memory cell arrays . . . ." 12:31-34. *See also* 4:45-17:22; Figs. 2-12.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	See above
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	See above
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	See above
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	"The disk emulator section 120 emulates a twenty megabyte (20 MB) magnetic media hard disk having 512 bytes per sector, 17 sectors per track, 1024 tracks per head, and three heads." 7:36-39. "An entire sector of data, 512 bytes or 4096 bits, is written to or read from the memory cell arrays . . . ." 12:31-34. *See also* 4:45-17:22; Figs. 2-12.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	"The disk emulator section 120 emulates a twenty megabyte (20 MB) magnetic media hard disk having 512 bytes per sector, 17 sectors per track, 1024 tracks per head, and three heads." 7:36-39. "An entire sector of data, 512 bytes or 4096 bits, is written to or read from the memory cell arrays . . . ." 12:31-34. *See also* 4:45-17:22; Figs. 2-12.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	"The disk controller 14 also includes a disk emulator interface bus DEI that provides a full complement of disk control signals to and from the disk emulator interface 22. These include sector signal SECTOR, index signal INDEX, write gate signal WG, read gate signal RG, serial data input/output NRZ, and read reference serial data clock RRCLK. . . . The read gate and write gate outputs are sent directly to the disk emulator interface 22 for control over the read and write operations. The index and sector status are synthesized by the disk emulator interface 22 to permit transparent operation of the disk controller 114. The NRZ serial data is handled by the disk emulation interface 22 as if a true disk interface were present. 4:61-5:9. "[T]he microcontroller 118 writes into a command register . . . in the microcontroller interface 402 a specific command. The head and sector address are decoded in the disk emulator 408, which prepares to transmit to a specific bank in accordance with the decoded addresses." 10:23-30. "An entire sector of data, 512 bytes or 4096 bits, is written to or read from the memory cell arrays . . . ." 12:31-34. *See also* 4:45-17:22; Figs. 2-12.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,291,584
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A70

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
A	**Independent Claim 1**: 1. An interface device for communication between	The '168 patent discloses an information processing system configured for communications between a host computer application and a semiconductor storage device. 2:25-49; Fig. 1.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The '168 patent discloses a host computer program and operating system that includes a multipurpose interface. 1:14-25; 2:28-34, 2:40-44; Fig. 1. "Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage." 5:56-58; *see also* 5:28-6:51; Figs. 4, 5.
C	a data transmit/receive device,	The '168 patent discloses a data/transmit receive device in the form of semiconductor storage. 1:51-54; 4:9-27; Figs. 1, 2.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	
D	a processor;	The information processing system of the '168 patent includes a Central Processing Unit (CPU). 1:15-17; 3:52-57; 3:61-63; Figs. 1, 14.
E	a memory;	The information processing system of the '168 patent includes read-only memory (ROM) and random access memory (RAM). Abstract; 1:20-21.; 3:52-57; 3:61-63; 4:9-15; Figs. 1, 2, 14.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	The '168 patent discloses a system bus interface. 1:15-20; 3:52-57; Figs. 1, 2.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The information processing system of the '168 patent interfaces with semiconductor auxiliary storage through a connector. 4:9-27; Figs. 1, 2.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	
H	wherein the interface device is configured by the processor and the memory	The information processing system of the '168 patent is initialized by the CPU executing an Initial Load Program stored in the BIOS ROM. 1:26-32; 3:52-4:8; 5:28-51; Fig. 5.
H1	to include a first command interpreter and a second command interpreter,	The host system sees the auxiliary storage as a magnetic storage but, in fact, it is semiconductor auxiliary storage. In addition, the system of the '168 patent converts access requests for magnetic storage into access requests for semiconductor auxiliary storage. 2:29-36; 5:28-51; Fig. 5.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	"Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage. Accordingly, BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . DOS 42 and application software 41 see the auxiliary storage as the magnetic storage but, in fact, it is semiconductor auxiliary storage. In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. As a result, information processing system 1 makes use of existing application software without any need or requirement for changing its contents including any adaption to interface with the semiconductor auxiliary storage 9." 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above
K1	which signals to the host device that it is an input/output device customary in a host device	See above

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	See above
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See above
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The '168 patent discloses a host computer program and operating system that includes a multipurpose interface. 1:14-25; 2:28-34, 2:40-44; Fig. 1. "Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage." 5:56-58; *see also* 5:28-6:51; Figs. 4, 5.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	"Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage . . . . BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. . . . As a result, information processing system makes use of existing application software without any need or requirement for changing its contents." 5:56-6:6; *see also* 5:28-6:51; Figs. 4, 5.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	"Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage. Accordingly, BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . DOS 42 and application software 41 see the auxiliary storage as the magnetic storage but, in fact, it is semiconductor auxiliary storage. In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. As a result, information processing system 1 makes use of existing application software without any need or requirement for changing its contents including any adaption to interface with the semiconductor auxiliary storage 9." 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The information processing system of the '168 patent includes read-only memory (ROM) and random access memory (RAM). Abstract; 1:20-21.; 3:52-57; 3:61-63; 4:9-15; Figs. 1, 2, 14.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The information processing system of the '168 patent includes a Central Processing Unit (CPU). 1:15-17; 3:52-57; 3:61-63; Figs. 1, 14.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	"Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage. Accordingly, BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . DOS 42 and application software 41 see the auxiliary storage as the magnetic storage but, in fact, it is semiconductor auxiliary storage. In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. As a result, information processing system 1 makes use of existing application software without any need or requirement for changing its contents including any adaption to interface with the semiconductor auxiliary storage 9." 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 5,226,168
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	"Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage . . . . BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. . . . As a result, information processing system makes use of existing application software without any need or requirement for changing its contents." 5:56-6:6; *see also* 5:28-6:51; Figs. 4, 5.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
K2	which signals to the host device that it is a storage device customary in a host device,	"Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage. Accordingly, BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . DOS 42 and application software 41 see the auxiliary storage as the magnetic storage but, in fact, it is semiconductor auxiliary storage. In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. As a result, information processing system 1 makes use of existing application software without any need or requirement for changing its contents including any adaption to interface with the semiconductor auxiliary storage 9." 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	See above
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	"Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage. Accordingly, BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . DOS 42 and application software 41 see the auxiliary storage as the magnetic storage but, in fact, it is semiconductor auxiliary storage. In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. As a result, information processing system 1 makes use of existing application software without any need or requirement for changing its contents including any adaption to interface with the semiconductor auxiliary storage 9." 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.

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Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	"[S]eparate semiconductor auxiliary storages are employed for storing software programs as well as for storing data." 4:20-27; Fig. 2. "Application software 41 and DOS 42 are prepared on the assumption that the magnetic storage, such as the floppy or hard disk, is employed as auxiliary storage. Accordingly, BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . DOS 42 and application software 41 see the auxiliary storage as the magnetic storage but, in fact, it is semiconductor auxiliary storage. In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. As a result, information processing system 1 makes use of existing application software without any need or requirement for changing its contents including any adaption to interface with the semiconductor auxiliary storage 9." 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.

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Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	

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Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	"A BOOT program is stored in semiconductor device and the main body or software cannot be set up as a part of establishing an active condition. Therefore, it is not possible to store the OS itself in semiconductor auxiliary storage, nor to incorporate a medium copy program, i.e., copied into such storage, or from a floppy disk, and further, is dependent on a BIOS which is highly dependent on the OS. It is an object of the present invention to solve the above mentioned problems." 2:4-16. "BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. " 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	See above
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	See above
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	"BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. " 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	"BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means. " 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 5,226,168
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	"BIOS 43 is requested by DOS 42 or application software 41 to access the floppy disk or hard disk. However, BIOS 43 converts the access request for magnetic storage to an access request for semiconductor auxiliary storage 9 . . . . In other words, in the present system, semiconductor auxiliary storage 9 is treated as if it is the magnetic storage or memory means." 5:56-6:5. "When an access request to the hard disk is issued for BIOS 43, BIOS 43 accesses semiconductor auxiliary storage 9 to deliver the fetched data to DOS 42 or application software 41 as if it is the requested data from the hard disk." 8:25-29. *See also* 5:28-8:29; Figs. 4, 5, 6.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A71

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 4,896,262
A	**Independent Claim 1**: 1. An interface device for communication between	"The backing storage controller 3 serves as an interface between the CPU 1 and the semiconductor backing storage device unit 4." 4:60-63; *see also* Figs. 1, 3; 4:53-5:24.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	CPU 1 which communicates via magnetic disk commands over bus 2. Fig. 1; 2:46-68; 4:53-7:22.
C	a data transmit/receive device,	Semiconductor backing storage unit 4 is a data transmit/receive device in the form of semiconductor memory. Figs. 1, 3; 4:53-5:24.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	
D	a processor;	The backing storage controller 3 contains microprocessor 9. Fig. 1; 4:53-5:24; 5:61-68.
E	a memory;	The backing storage controller 3 contains ROM 11 and RAM 14. Fig. 1; 4:53-5:24; 5:61-68.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	CPU 1 connects to backing storage controller 3 via bus 2 and CPU bus driver/receiver 5. Fig. 1; 4:53-5:24; 6:1-11.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	Semiconductor backing storage unit 4 connects to backing storage controller 3 via storage driver/receiver. Figs. 1, 3; 4:53-5:24; 6:12-19.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 4,896,262
H	wherein the interface device is configured by the processor and the memory	"The controller 3 is an intelligent controller having direct memory access functions and interrupt functions, which includes a microprocessor operated in accordance with control microprogram stored in a ROM arranged therewithin. 5:10-15; *see also* Figs. 1, 2; 2:46-3:60; 4:53-5:24; 5:61-9:34.
H1	to include a first command interpreter and a second command interpreter,	See above
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10. "[A]lthough the CPU 1 requests data transfer to the backing storage unit 4 in magnetic disc access mode, since the storage controller 3 omits control data peculiar to magnetic disc access mode and converts address data peculiar to magnetic disc access mode into those peculiar to semiconductor element access mode, it is possible to directly transfer information data between the CPU 1 and the semiconductor unit 4. 9:26-34. *See also* Figs. 1, 2, 3; 2:46-3:60; 4:53-13:22.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 4,896,262
K1	which signals to the host device that it is an input/output device customary in a host device	See above
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	CPU 1 communicates with backing storage controller 3 via magnetic disk drivers. Figs. 1, 2; 2:46-68; 4:53-9:34.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10. "[A]lthough the CPU 1 requests data transfer to the backing storage unit 4 in magnetic disc access mode, since the storage controller 3 omits control data peculiar to magnetic disc access mode and converts address data peculiar to magnetic disc access mode into those peculiar to semiconductor element access mode, it is possible to directly transfer information data between the CPU 1 and the semiconductor unit 4. 9:26-34. *See also* Figs. 1, 2, 3; 2:46-3:60; 4:53-13:22.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	CPU 1 connects to backing storage controller 3 via bus 2 and CPU bus driver/receiver 5. Fig. 1; 4:53-5:24; 6:1-11.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	U.S. Patent No. 4,896,262
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	CPU 1 connects to backing storage controller 3 via bus 2 and CPU bus driver/receiver 5. Fig. 1; 4:53-5:24; 6:1-11.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.

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Code	USP 6,470,399's Claim Language	U.S. Patent No. 4,896,262
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	Because CPU 1 uses command signals for magnetic disks, CPU 1 necessarily contains drivers for magnetic disk drives. Figs. 1, 2; 2:46-68; 4:53-9:34.

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Code	USP 6,470,399's Claim Language	U.S. Patent No. 4,896,262
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	Backing storage controller 3 contains a buffer memory circuit which buffers data to be transferred between semiconductor backing storage unit 4 and CPU 1. Figs. 5, 6A, 6B; 4:23-28; 10:19-13:22.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The backing storage controller 3 contains microprocessor 9. Fig. 1; 4:53-5:24; 5:61-68.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, address data peculiar to magnetic disc access mode are converted into those necessary for semiconductor memory mode in writing or reading information data. Figs. 1, 2, 3; 2:46-3:60; 4:53-13:22.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	

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Code	USP 6,470,399's Claim Language	U.S. Patent No. 4,896,262
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	Because CPU 1 uses command signals for magnetic disks, CPU 1 necessarily contains drivers for magnetic disk drives. Figs. 1, 2; 4:53-9:34.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
K2	which signals to the host device that it is a storage device customary in a host device,	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10. "[A]lthough the CPU 1 requests data transfer to the backing storage unit 4 in magnetic disc access mode, since the storage controller 3 omits control data peculiar to magnetic disc access mode and converts address data peculiar to magnetic disc access mode into those peculiar to semiconductor element access mode, it is possible to directly transfer information data between the CPU 1 and the semiconductor unit 4. 9:26-34. *See also* Figs. 1, 2, 3; 2:46-3:60; 4:53-13:22.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	CPU 1 communicates with backing storage controller 3 via drivers for magnetic disk drives. Figs. 1, 2; 2:46-68; 4:53-9:34.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10; *see also* Figs. 1, 2; 2:46-68; 4:53-9:34.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10. "[A]lthough the CPU 1 requests data transfer to the backing storage unit 4 in magnetic disc access mode, since the storage controller 3 omits control data peculiar to magnetic disc access mode and converts address data peculiar to magnetic disc access mode into those peculiar to semiconductor element access mode, it is possible to directly transfer information data between the CPU 1 and the semiconductor unit 4. 9:26-34. *See also* Figs. 1, 2, 3; 2:46-3:60; 4:53-13:22.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10. "[A]lthough the CPU 1 requests data transfer to the backing storage unit 4 in magnetic disc access mode, since the storage controller 3 omits control data peculiar to magnetic disc access mode and converts address data peculiar to magnetic disc access mode into those peculiar to semiconductor element access mode, it is possible to directly transfer information data between the CPU 1 and the semiconductor unit 4. 9:26-34. *See also* Figs. 1, 2, 3; 2:46-3:60; 4:53-13:22.
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10. "[A]lthough the CPU 1 requests data transfer to the backing storage unit 4 in magnetic disc access mode, since the storage controller 3 omits control data peculiar to magnetic disc access mode and converts address data peculiar to magnetic disc access mode into those peculiar to semiconductor element access mode, it is possible to directly transfer information data between the CPU 1 and the semiconductor unit 4. 9:26-34. *See also* Figs. 1, 2, 3; 2:46-3:60; 4:53-13:22.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	See above
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	See above
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10; *see also* Figs. 1, 2; 2:46-68; 4:53-9:34.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10; *see also* Figs. 1, 2; 2:46-68; 4:53-9:34.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	In transferring data between CPU 1 and the semiconductor backing storage unit 4, storage controller 3 "converts address data peculiar to magnetic disc access mode into those necessary for semiconductor memory mode. In more detail, the backing storage controller 3 emulates (imitates a magnetic disc backing storage controller." 5:2-10; *see also* Figs. 1, 2; 2:46-68; 4:53-9:34.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	U.S. Patent No. 4,896,262
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A72

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	"32 MByte High Performance Solid State Disk"
A	**Independent Claim 1**: 1. An interface device for communication between	"OKI introduces a 32 Mbyte PCMCIA ATA SSD card for mobile external storage devices." *See* Unno, Y., *32 MByte High Performance Solid State Disk*, OKI Technical Review 155, Vol. 62 (Apr. 1996) ("Unno Article") at p. 17. *See also* Unno Article at p. 17 (describing disk controller component); Fig. 1.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The host contains a PCMCIA interface and drivers. Unno Article at pp. 17, 18; Fig. 1.
C	a data transmit/receive device,	Memory bank component, which contains flash EEPROM memory. Unno Article at pp. 17, 18; Fig. 1.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	
D	a processor;	The disk controller component contains a micro CPU. Unno Article at pp. 17, 18; Fig. 1.
E	a memory;	The disk controller component contains data buffers and a memory component. Unno Article at pp. 17, 18; Fig. 1.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	The disk controller component connects to the host via the host interface (a standard PCMCIA card slot). Unno Article at pp. 17, 18; Fig. 1; Photo 1.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The disk controller component connects to the memory bank component via the flash EEPROM interface. Unno Article at pp. 17, 18, Fig. 1.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	"32 MByte High Performance Solid State Disk"
H	wherein the interface device is configured by the processor and the memory	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.
H1	to include a first command interpreter and a second command interpreter,	See above
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	See above
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above
K1	which signals to the host device that it is an input/output device customary in a host device	See above
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	See above
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See above
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	"32 MByte High Performance Solid State Disk"
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The host contains a PCMCIA interface and drivers. Unno Article at pp. 17, 18, Fig. 1.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	The host contains a PCMCIA interface and drivers. Unno Article at pp. 17, 18, Fig. 1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	"32 MByte High Performance Solid State Disk"
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	"32 MByte High Performance Solid State Disk"
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The controller component contains data buffers to buffer data to be transferred between the memory bank component and the host. Unno Article at pp. 17-19, Fig. 1.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The disk controller component contains a micro CPU. Unno Article at pp. 17, 18; Fig. 1.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	"32 MByte High Performance Solid State Disk"
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	"32 MByte High Performance Solid State Disk"
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	See above
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	See above
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	See above
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	"32 MByte High Performance Solid State Disk"
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	The "storage device can be accessed with the same protocol as when an AT compatible machine accesses a hard disk." "The microcontroller component receives commands from the host, converts the given logic address to the physical address corresponding to the memory, then starts the execution of reading or writing data for the address under control of the disk controller component, implementing pipeline control." Unno Article at pp. 17-19, Fig. 1.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A73

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DeskLab
A	**Independent Claim 1**: 1. An interface device for communication between	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." *See* Digital Equipment Corp., *TRI/+ Program Shippable Products Catalog*, Rev. 18.0 (Oct. 1992) ("DEC Catalog") at p. 23.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	Workstation, including SCSI drivers and interface. DEC Catalog at p. 23.
C	a data transmit/receive device,	Devices for "speech processing, acoustics, psycoacoustics, engineering and similar areas." DEC Catalog at p. 23.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The devices provide "real-time analog data." DEC Catalog at p. 23.
D	a processor;	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.
E	a memory;	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	"Parallel and serial ports are included for integrating with existing equipment." DEC Catalog at p. 23.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DeskLab
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.
H	wherein the interface device is configured by the processor and the memory	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.
H1	to include a first command interpreter and a second command interpreter,	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
K1	which signals to the host device that it is an input/output device customary in a host device	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
C	a data transmit/receive device	See '399 claim 1, row C.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DeskLab
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DeskLab
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DeskLab
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	"DeskLab is a complete hardware/software solution for workstation real-time data acquisition." DEC Catalog at p. 23.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	"DeskLab is a complete hardware/software solution for workstation real-time analog data acquisition. DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DeskLab
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DeskLab
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	"DeskLab is a complete hardware/software solution for workstation real-time analog data acquisition. DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DeskLab
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	"DeskLab is a complete hardware/software solution for workstation real-time analog data acquisition. DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DeskLab
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DeskLab
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DeskLab
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DeskLab
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A74

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DASM-AD14
A	**Independent Claim 1**: 1. An interface device for communication between	"The DASM-AD14 is a 14-bit, 2 MHz sampling analog-to-digital (A/D) converter subsystem that attaches to the workstation's SCSI port." *See* Digital Equipment Corp., *TRI/+ Program Shippable Products Catalog*, Rev. 18.0 (Oct. 1992) ("DEC Catalog") at p. 23.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	Workstation, including SCSI drivers and interface. DEC Catalog at p. 23.
C	a data transmit/receive device,	Any device producing "+/- 5 v analog signals." DEC Catalog at p. 23.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The device provides "+/- 5 v analog signals." DEC Catalog at p. 23.
D	a processor;	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
E	a memory;	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	"The DASM-AD14 is a 14-bit, 2 MHz sampling analog-to-digital (A/D) converter subsystem that attaches to the workstation's SCSI port." *See* DEC Catalog at p. 23.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	"The DASM-AD14 is a 14-bit, 2 MHz sampling analog-to-digital (A/D) converter subsystem that attaches to the workstation's SCSI port." *See* DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DASM-AD14
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	"The DASM-AD14 is a 14-bit, 2 MHz sampling analog-to-digital (A/D) converter subsystem that attaches to the workstation's SCSI port." *See* DEC Catalog at p. 23.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	"The DASM-AD14 is a 14-bit, 2 MHz sampling analog-to-digital (A/D) converter subsystem that attaches to the workstation's SCSI port." *See* DEC Catalog at p. 23.
H	wherein the interface device is configured by the processor and the memory	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
H1	to include a first command interpreter and a second command interpreter,	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
K1	which signals to the host device that it is an input/output device customary in a host device	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DASM-AD14
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	Workstation, including SCSI drivers and interface. DEC Catalog at p. 23.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DASM-AD14
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DASM-AD14
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DASM-AD14
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	DASM-AD14
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	"DeskLab installs exactly like a SCSI disk without special drivers." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DASM-AD14
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DASM-AD14
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DASM-AD14
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DASM-AD14
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DASM-AD14
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DASM-AD14
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	DASM-AD14
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	"The DASM-AD14 digitizes +/- 5 v analog signals and buffers the data in up to 8 Mbytes of internal memory that appears to the host as a SCSI disk drive." DEC Catalog at p. 23.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A75

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP PhotoSmart Camera C5340
A	**Independent Claim 1**: 1. An interface device for communication between	The HP PhotoSmart Camera provides an interface between a PC or Macintosh computer and camera elements, such as a storage card which stores images taken from a lens-CCD assembly.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The HP PhotoSmart Camera interfaces with a PC or Macintosh computer via an RS-232 interface using standard Windows 95 drivers.
C	a data transmit/receive device,	The HP PhotoSmart Camera includes a CCD image sensor and associated electronics for capturing images.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The CCD sensor captures analog data.
D	a processor;	The interface portion of the HP PhotoSmart Camera typically has a processor such as a microprocessor or microcontroller.
E	a memory;	The interface portion of the HP PhotoSmart Camera typically includes a memory.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	The HP PhotoSmart Camera includes a first connecting device comprising an RS-232 serial port circuit for interfacing the device with a multipurpose RS-232 serial port on the host PC.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The HP PhotoSmart Camera includes a second connecting device comprising a sample and hold circuit and an analog to digital converter.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399, Claim 1, Row G.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399, Claim 1, Row G.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP PhotoSmart Camera C5340
H	wherein the interface device is configured by the processor and the memory	The interface device fo the HP PhotoSmart Digital Camera is configured to include first and second command interpreters as set forth more fully below.
H1	to include a first command interpreter and a second command interpreter,	See '399, Claim 1, Row H.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	The first command interpreter may comprise, for example, a serial bus command interpreter.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	The HP PhotoSmart Camera communicates with the host using the standard RS-232 port and Windows 95 drivers. Additionally, the Camera may use standard TWAIN API drivers for interfacing with applications.
K1	which signals to the host device that it is an input/output device customary in a host device	See J above.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	See J above.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	The second command interpreter is configured to interpret data request commands generated using standard Windows 95 or TWAIN protocols sent via the RS-232 port.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The HP PhotoSmart Camera communicates with the host using the standard RS-232 port and Windows 95 drivers. Additionally, the Camera may use standard TWAIN API drivers for interfacing with applications.
C	a data transmit/receive device	See '399 claim 1, row C.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP PhotoSmart Camera C5340
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	The HP PhotoSmart Camera communicates with the host using the standard RS-232 port and Windows 95 drivers. Additionally, the Camera may use standard TWAIN API drivers for interfacing with applications.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP PhotoSmart Camera C5340
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP PhotoSmart Camera C5340
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	The HP PhotoSmart Camera communicates with the host using the standard RS-232 port and Windows 95 drivers. Additionally, the Camera may use standard TWAIN API drivers for interfacing with applications.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The HP PhotoSmart Camera includes internal memory and structure for receiving a memory card. The internal memory and/or memory card comprise a buffer to buffer data acquired by the transmit/receive device until it is transferred to the host PC. The HP PhotoSmart Camera may also comprise a memory buffer used during processing of images acquired by the image sensor.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The HP PhotoSmart Camera includes a DSP.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP PhotoSmart Camera C5340
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	The HP PhotoSmart Camera has a memory device including a file structure and files that may be read by the host PC.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP PhotoSmart Camera C5340
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP PhotoSmart Camera C5340
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	The HP PhotoSmart Camera includes a memory with a file structure that stores image files which may be accesses by the host PC.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Prior Art Reference
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	The HP PhotoSmart Camera includes a memory with a file structure that stores image files which may be accessesd by the host PC.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP PhotoSmart Camera C5340
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP PhotoSmart Camera C5340
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	The HP PhotoSmart Camera includes a memory with a file structure that stores image files which may be accessed by the host PC.
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	The HP PhotoSmart Camera includes a memory with a file structure that stores image files which may be accessed by the host PC.

PRIOR ART CLAIM CHART

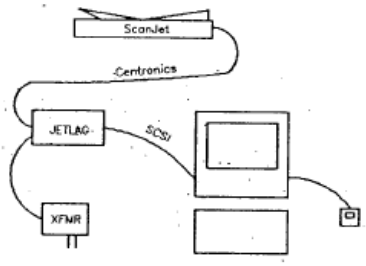
Code	USP 6,895,449's Claim Language	HP PhotoSmart Camera C5340
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	The HP PhotoSmart Camera includes a memory with a file structure that stores image files which may be accessed by the host PC.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	The HP PhotoSmart Camera includes a memory with a file structure that stores image files which may be accessed by the host PC.

PRIOR ART CLAIM CHART

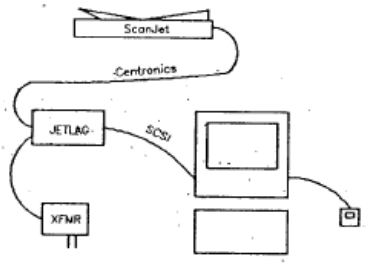
Code	USP 6,895,449's Claim Language	HP PhotoSmart Camera C5340
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A76

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP 88396/88395 ("JetLag")
A	**Independent Claim 1**: 1. An interface device for communication between	"JetLag is an interface converter, driver and application software that enables a ScanJet to be connected to Macintosh plus computers." *See, e.g.,* JetLag ScanJet Interface for Macintosh datasheet.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	JetLag uses the SCSI port and standard SCSI drivers. *See, e.g.,* JetLag ScanJet Interface for Macintosh datasheet.
C	a data transmit/receive device,	A ScanJet scanner is a data transmit/receive device.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	A ScanJet scanner receives analog data when scanning an image. The analog data is converted into digitized representations of the image, for example as a percent reflectance or grayscale level.
D	a processor;	JetLag includes a processor. *See, e.g.,* JetLag ScanJet Interface for Macintosh datasheet (referencing "converter hardware").
E	a memory;	JetLag includes a memory. *See, e.g.,* JetLag ScanJet Interface for Macintosh datasheet (referencing "converter hardware").
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	JetLag has a first connecting device to connect to the host Mac computer via a SCSI cable. SCSI is a multipurpose interface. *See, e.g.,* JetLag ScanJet Interface for Macintosh datasheet. 

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP 88396/88395 ("JetLag")
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	JetLag includes a second connecting device to connect to the ScanJet via a Centronix parallel connection. *See, e.g.,* JetLag ScanJet Interface for Macintosh datasheet. 
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	ScanJets use a sampling circuit for sampling the analog signals from the scanning sensor.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	ScanJets use an analog-to-digital converter for converting the sampled data into digital data. ScanJets use the correlated double sampling similar to that used in digital cameras.
H	wherein the interface device is configured by the processor and the memory	The firmware stored in the JetLag memory configures the JetLag processor.
H1	to include a first command interpreter and a second command interpreter,	JetLag includes a first command interpreter for transmitting and receiving SCSI commands from the host, and a second command interpreter for transmitting and receiving Scanner Command Language ("SCL") commands. *See, e.g.,* JetLag ScanJet Interface for Macintosh datasheet.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	JetLag communicates with the host via the standard SCSI commands via a SCSI port.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See H1 and I above.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP 88396/88395 ("JetLag")
K1	which signals to the host device that it is an input/output device customary in a host device	See H1 and I above.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	SCSI was customary in Macintosh computers at the time.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	The second command interpreter converts SCSI commands received from the host into Centronix/SCL commands to transfer data to the host.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The host Macinstosh computer contains SCSI drivers for the multipurpose SCSI interface.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP 88396/88395 ("JetLag")
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	The host Macintosh computer communicates with JetLag via the SCSI driver for the SCSI multipurpose interface.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP 88396/88395 ("JetLag")
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	The interface device appears as a SCSI device to the host.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	JetLag includes memory for buffering.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	JetLag includes a processor. JetLag ScanJet Interface for Macintosh datasheet (referencing "converter hardware").

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP 88396/88395 ("JetLag")
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	HP 88396/88395 ("JetLag")
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	The host device and JetLag communicate via a SCSI interface.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP 88396/88395 ("JetLag")
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	The interface device uses a SCSI interface.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	The interface device uses a SCSI interface.
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP 88396/88395 ("JetLag")
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP 88396/88395 ("JetLag")
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP 88396/88395 ("JetLag")
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP 88396/88395 ("JetLag")
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	HP 88396/88395 ("JetLag")
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	The interface device uses a SCSI interface and SCSI protocols.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A77

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
A	**Independent Claim 1**: 1. An interface device for communication between	The PDC-2000 camera includes an interface device that is formed by at least a portion of the CPU and in-camera storage that are part of the camera.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The PDC-2000 camera can be connected via a SCSI cable and DB25/50 pin Centronics adapter to a PC or Macintosh computer that utilizes drivers for a variety of input/output devices. If you are connecting the PDC-2000 to a PC, the computer must have an ASPI-compliant SCSI adapter. *See* "Polaroid Digital Camera PDC-2000 Guide for Macintosh or Windows Application" ("PDC User Guide") at 7, 9, 11-13, 17- 31, 121.
C	a data transmit/receive device,	The PDC-2000 camera includes a "data transmit/receive device" formed at least in part by a lens and a light sensor. *See* PDC User Guide at 121-22.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The lens and light sensor of the PDC-2000 provide analog image data. *See* PDC User Guide at 121-22.
D	a processor;	The interface portion of the PDC-2000 camera includes a processor. *See* PDC User Guide at 122.
E	a memory;	The interface portion of the PDC-2000 camera includes an in-camera storage or internal memory that is located on the camera. The internal memory forms at least a portion of the claimed "memory." *See* PDC User Guide at 22, 28-29, 121. In addition, the PDC-2000 camera has an embedded SanDisk 60MB IDE FlashDrive. *See* March 11, 1996 SanDisk press release.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	The PDC-2000 camera includes a first connecting device comprising a SCSI-2 port for interfacing the interface device with a multipurpose SCSI interface on a host PC. *See* PDC User Guide at 121; *see also* 7, 9, 11-13.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	The PDC-2000 camera includes a second connecting device comprising a sampling circuit and an analog to digital converter which must inherently be present. This circuitry interfaces analog data provided by a data transmit receive device (including the image sensor) with the interface device.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See above.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See above.
H	wherein the interface device is configured by the processor and the memory	The interface device of the PDC-2000 camera is configured to include first and second command interpreters as set forth more fully below.
H1	to include a first command interpreter and a second command interpreter,	See above.
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	The first command interpreter may comprise, for example, a SCSI command interpreter. When a PDC-2000 camera is plugged into a SCSI port on a host PC or Macintosh computer, the camera may receive inquiry signals from the host to determine when something is operatively connected thereto.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	The PDC-2000 camera then sends a signal to the host, regardless of the image sensor, or other data transmit/receive device attached to the interface device, that causes the host to recognize that it can communicate with the PDC-2000 by means of a software driver for a device that stores digital images. The host communicates with the embedded SanDisk 60MB IDE FlashDrive via standard disk drive drivers. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
K1	which signals to the host device that it is an input/output device customary in a host device	See above.
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	The host communicates with the interface portion of the PDC-2000 camera via standard disk drive drivers. PDC User Guide at 3, 7, 9, 11-13, 17- 31, 69-71, 91-93, 121. The host communicates with the embedded SanDisk 60MB IDE FlashDrive in the PDC-2000 camera via standard disk drive drivers. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart. In addition, the host communicates with the interface portion of the PDC-2000 camera by means of a TWAIN driver. *See* PDC User Guide at 3, 7, 26-28, 83-84.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	A user may use the interface provided by the driver software to view the images stored in the PDC-2000 camera's memory in a directory structure and retrieve the images files. See PDC User Guide at 65 - 71. The PDC-2000 camera inherently includes a second command interpreter that is adapted to cause the processor of the PDC-2000 camera to interpret a data request command from the PC as being a command to initialize a transfer of digital data to the PC. The digital data can include digitized pictures. In addition, because the host views the embedded SanDisk 60MB IDE FlashDrive as a standard disk drive, files can be transferred to the host computer. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
A	**Independent claim 11**: 11. An interface device for communication between	See '399 Claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	A host PC or Macintosh computer has a multipurpose SCSI interface and drivers for this interface, including, for a PC, an ASPI-compliant SCSI adapter. *See* PDC User Guide at 7, 9, 11-13, 17- 31, 121.
C	a data transmit/receive device	See '399 Claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 Claim 1, row C1.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 Claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 Claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 Claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 Claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 Claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 Claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 Claim 1, row K1.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	The host communicates with the interface portion of the PDC-2000 camera by means of a standard SCSI driver and, specifically, for a PC, by means of an ASPI-compliant SCSI adapter. *See* PDC User Guide at 7, 9, 11-13, 17- 31, 121.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 Claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 Claim 1, row B.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
C	a data transmit/receive device	See '399 Claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 Claim 1, row C1
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 Claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 Claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 Claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 Claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 Claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 Claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 Claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 Claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 Claim 1, row M.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	The host communicates with the interface portion of the PDC-2000 camera via standard SCSI disk drive drivers. PDC User Guide at 3, 7, 9, 11-13, 17- 31, 69-71, 91-93, 121. The host communicates with the embedded SanDisk 60MB IDE FlashDrive in the PDC-2000 camera via standard SCSI disk drive drivers. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart. In addition, the host communicates with the interface portion of the PDC-2000 camera by means of a TWAIN driver. *See* PDC User Guide at 3, 7, 26-28, 83-84.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	The PDC-2000 camera includes internal memory. The internal memory comprises a buffer to buffer data acquired by the data transmit/receive device until it is transferred to the host PC. The PDC-2000 camera also comprises a memory buffer used during processing of images acquired by the image sensor. The embedded SanDisk 60MB IDE FlashDrive contains buffers. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart..
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	The interface portion of the PDC-2000 camera includes a processor to process digital image data. *See* PDC User Guide at 122.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	Polaroid PDC-2000
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	See '399 Claim 2, row B*1.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 Claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 Claim 1, row C.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 Claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 Claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 Claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	The PDC-2000 camera then sends a signal to the host, regardless of the image sensor, or other data transmit/receive device attached to the interface device, that causes the host to recognize that it can communicate with the PDC-2000 by means of a software driver for a device that stores digital images. The host communicates with the embedded SanDisk 60MB IDE FlashDrive via standard disk drive drivers. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	The host communicates with the interface portion of the PDC-2000 camera via standard disk drive drivers. PDC User Guide at 3, 7, 9, 11-13, 17- 31, 69-71, 91-93, 121. The host communicates with the embedded SanDisk 60MB IDE FlashDrive in the PDC-2000 camera via standard disk drive drivers. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart. In addition, the host communicates with the interface portion of the PDC-2000 camera by means of a TWAIN driver. *See* PDC User Guide at 3, 7, 26-28, 83-84.
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
A	**Independent claim 17**: 17. An interface device for communication between	See '399 Claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 Claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 Claim 1, row C.
D	a processor;	See '399 Claim 1, row D.
E	a memory;	See '399 Claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 Claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 Claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 Claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 Claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 Claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 Claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '449 Claim 1, row L2
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
A	**Independent Claim 18**: 18. A method of communication between	See '399 Claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 Claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 Claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 Claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 Claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 Claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 Claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 Claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 Claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	The PDC-2000 camera is adapted to store pictures in a file system and a directory structure defined in its memory. The embedded SanDisk 60MB IDE FlashDrive mimics the file structure of a disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	The embedded SanDisk 60MB IDE FlashDrive appears to the computer as a standard disk drive. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	Polaroid PDC-2000
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	The PDC-2000 camera includes internal memory. The internal memory comprises a buffer to buffer data acquired by the data transmit/receive device until it is transferred to the host PC, i.e., permitting time independence from when a photograph is captured and when it is transferred to the host PC. The PDC-2000 camera also comprises a memory buffer used during processing of images acquired by the image sensor. In addition, the embedded SanDisk 60MB IDE FlashDrive contains buffers. *See* March 11, 1996 SanDisk press release; *see also* SanDisk FlashDrive chart.

Exhibit A78

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
A	**Independent Claim 1**: 1. An interface device for communication between	SanDisk's FlashDisk and CompactFlash cards "contain an intelligent controller on the card which performs the same Flash management functions transparent to the user." SanDisk, *General Flash Information* at pp. 2, 3.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	The host computer contains a PCMCIA interface and drivers and has ATA support. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at p. 5; SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2; SanDisk, *SanDisk Product Overview* at p. 1, 2. Most of the leading mobile computers have built-in support for the SanDisk FlashDisk and require no device driver installation. FlashDisk User Guide at p. 2.
C	a data transmit/receive device,	SanDisk's FlashDisk and CompactFlash cards contain solid-state memory which constitute a data transmit/receive device. SanDisk, *General Flash Information* at p. 1. SanDisk's FlashDisk and CompactFlash cards can be used in digital cameras. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at pp. 1-5.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	The imaging devices in the digital cameras provide analog data. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at pp. 1-5.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
D	a processor;	SanDisk's FlashDisk and CompactFlash cards "contain an intelligent controller on the card which performs the same Flash management functions transparent to the user." SanDisk, *General Flash Information* at pp. 2, 3.
E	a memory;	See above
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	SanDisk's FlashDisk and CompactFlash cards connect to a host computer via a standard PCMCIA interface. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at p. 5. CompactFlash "has built-in industry standard compatibility because the 50-pin CF cartridge can be easily slipped into a passive 68 pin Type II adapter card that fully meets PCMCIA electrical and mechanical interface specifications." SanDisk, *SanDisk Product Overview* at p. 2. The card can also be connected to the host computer via a cable. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at p. 5.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	SanDisk's FlashDisk and CompactFlash cards "contain an intelligent controller on the card which performs the same Flash management functions transparent to the user." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	The imaging devices in the digital cameras contain an analog-to-digital converter. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at pp. 1-5.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See above
H	wherein the interface device is configured by the processor and the memory	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
H1	to include a first command interpreter and a second command interpreter,	See above

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	See above
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above
K1	which signals to the host device that it is an input/output device customary in a host device	See above
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	See above
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See above
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	The host computer contains a PCMCIA interface and drivers and has ATA support. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at p. 5; SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2; SanDisk, *SanDisk Product Overview* at p. 1, 2. Most of the leading mobile computers have built-in support for the SanDisk FlashDisk and require no device driver installation. FlashDisk User Guide at p. 2.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	SanDisk's FlashDisk and CompactFlash cards "contain an intelligent controller on the card which performs the same Flash management functions transparent to the user." SanDisk, *General Flash Information* at pp. 2, 3.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	SanDisk's FlashDisk and CompactFlash cards "contain an intelligent controller on the card which performs the same Flash management functions transparent to the user." SanDisk, *General Flash Information* at pp. 2, 3. The digital cameras contain digital signal processors. SanDisk, *SanDisk Digital Camera Compatibility List for FlashDisk and CompactFlash* at pp. 1-5.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	See '399 claim 4, row Z1.
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3. Most of the leading mobile computers have built-in support for the SanDisk FlashDisk and require no device driver installation. FlashDisk User Guide at p. 2.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
K2	which signals to the host device that it is a storage device customary in a host device,	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	See above
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	The FlashDisk and CompactFlash may include configuration files and files used to transfer data from the data transmit/receive device to the PC.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	See above
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	See above
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk PCMCIA FlashDisk Series and CompactFlash Series
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	PCMCIA-ATA provides interoperability with all major platforms and operating systems with no need for software. SanDisk, *Frequently Asked Questions About Digital Camera Memory Cards* at p. 2. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.

Exhibit A79

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
A	**Independent Claim 1**: 1. An interface device for communication between	SanDisk FlashDrives can be embedded in a digital camera that includes an interface device. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	SanDisk FlashDrives can be embedded in digital cameras that connect to a host computer via a multipurpose interface, such as SCSI, where the host computer also contains other standard drivers for input/output devices. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. The host computer contains an IDE interface and drivers. SanDisk, *General Flash Information* at p. 1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
C	a data transmit/receive device,	SanDisk FlashDrives can be embedded in digital cameras that include a data transmit/receive device formed at least in part by a lens and a light sensor. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. SanDisk FlashDrives contain solid-state memory which constitute a data transmit/receive device. SanDisk, *General Flash Information* at p. 1.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	SanDisk FlashDrives can be embedded in digital cameras, that have a lens and light sensor that provide analog image data. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart.
D	a processor;	SanDisk FlashDrives can be embedded in digital cameras that include a processor. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
E	a memory;	SanDisk FlashDrives can be embedded in digital cameras that include a memory. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	SanDisk FlashDrives can be embedded in digital cameras that connect to a host device via a multi-purpose interface, such as SCSI. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. The host computer contains an IDE interface and drivers. SanDisk, *General Flash Information* at p. 1.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	SanDisk FlashDrives can be embedded in digital cameras which connect to a data transmit/receive device. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	SanDisk FlashDrives can be embedded in digital cameras which include an analog-to-digital converter. *See* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	SanDisk FlashDrives can be embedded in digital cameras which include an analog-to-digital converter. *See* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
H	wherein the interface device is configured by the processor and the memory	SanDisk FlashDrives can be embedded in digital cameras that are configured to include first and second command interpreters as set forth more fully below. *See* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart.
H1	to include a first command interpreter and a second command interpreter,	See above

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
I	wherein the first command interpreter is configured in such a way that the command interpreter, when receiving an inquiry from the host device as to a type of a device attached to the multi-purpose interface of the host device	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See above
K1	which signals to the host device that it is an input/output device customary in a host device	See above
L1	whereupon the host device communicates with the interface device by means of the driver for the input/output device customary in a host device, and	See above
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See above
A	**Independent claim 11**: 11. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface, and	SanDisk FlashDrives can be embedded in digital cameras that connect via a multipurpose interface, such as SCSI, to a host computer having specific drivers for the multi-purpose interface. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1.
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, comprising:	See '399 claim 1, row C1.
D	a processor;	See '399 claim 1, row D.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device, the second connecting device including	See '399 claim 1, row G.
G1	a sampling circuit for sampling the analog data provided by the data transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data,	See '399 claim 1, row G2.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
H1	to include a first command interpreter and a second command interpreter,	See '399 claim 1, row H1.
I	wherein the first command interpreter is configured in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device,	See '399 claim 1, row J.
K1	which signals to the host device that it is an input/output device customary in a host device,	See '399 claim 1, row K1.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	SanDisk FlashDrives can be embedded in digital cameras that connect via a multipurpose interface, such as SCSI, to a host computer having specific drivers for the multi-purpose interface. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1.
M	wherein the second command interpreter is configured to interpret a data request command from the host device to the type of input/output device signaled by the first command interpreter as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.
A	**Independent Claim 14**: 14. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1
C	a data transmit/receive device	See '399 claim 1, row C.
C1	the data transmit/receive device being arranged for providing analog data, via an interface device, comprising:	See '399 claim 1, row C1.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device, the second connecting device including	See '399 claim 1, row G.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
G1	a sampling circuit for sampling the analog data provided by the data/transmit/receive device and	See '399 claim 1, row G1.
G2	an analog-to-digital converter for converting data sampled by the sampling circuit into digital data;	See '399 claim 1, row G2.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive data attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K1	in such a way that it is an input/output device customary in a host device,	See '399 claim 1, row K1.
L1	whereupon the host device communicates with the interface device by means of the usual driver for the input/output device, and	See '399 claim 1, row L1.
M	interpreting a data request command from the host device to the type of input/output device customary in the host device as a data transfer command for initiating a transfer of the digital data to the host device.	See '399 claim 1, row M.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
B*1	**Dependent Claim 2**: 2. An interface device according to claim 1, wherein the drivers for input/output drivers customary in a host device comprise a hard disk driver, and the signal indicates to the host device that the host device is communicating with a hard disk.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
E*	**Dependent Claim 3**: 3. An interface device according to claim 1, wherein the memory means comprises a buffer to buffer data to be transferred between the data transmit/receive device and the host device.	SanDisk FlashDrives can be embedded in digital cameras that include buffers. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart.
Z*	**Dependent Claim 4**: 4. An interface device according to claim 1, wherein the multi-purpose interface of the host device is an SCSI interface and the first connecting device also comprises an SCSI interface.	
D*	**Dependent Claim 5**: 5. An interface device according to claim 1, wherein the processor is a digital signal processor.	SanDisk FlashDrives can be embedded in digital cameras that include digital signal processors. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1.
M*	**Dependent Claim 6**: 6. An interface device according to claim 2, wherein the data to be transferred from the data transmit/receive device to the host device in the interface device is formatted in a suitable format for a hard disk present in the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
N*1	**Dependent Claim 7**: 7. An interface device according to claim 2, which further comprises a root directory and virtual files which are present on the signaled hard disk drive and which can be accessed from the host device.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1 "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
N*2	**Dependent Claim 8**: 8. An interface device according to claim 7, wherein the virtual files comprise a configuration file in text format which are stored in the memory means and using which the user can configure the interface device for a specific data transmit/receive device.	
N*3	**Dependent Claim 9**: 9. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the microprocessor means which are stored in the interface device in order to perform data processing, independently of the host device, of data received via the second connecting device.	
N*4	**Dependent Claim 10**: 10. An interface device according to claim 7, wherein the virtual files comprise batch files or executable files for the host device which are stored in the interface device.	
B*2	**Dependent Claim 12**: 12. An interface device according to claim 11, wherein in addition to the first connecting device of the interface device, there is a further input/output device at the multi-purpose interface of the host device, and wherein the interface device can communicate directly with said further input/output device via the specific driver for the multi-purpose interface.	
Z*	**Dependent Claim 13**: 13. An interface device according to claim 11, wherein the multi-purpose interface is an SCSI interface,	See '399 claim 4, row Z1.
B*3	and wherein the specific driver for the multi-purpose interface is an ASPI manager.	

PRIOR ART CLAIM CHART

Code	USP 6,470,399's Claim Language	SanDisk FlashDrive Series
B*1	**Dependent Claim 15**: 15. A method according to claim 14, wherein the drivers for input/output devices customary in a host device comprise a driver for a storage device and in particular for a hard disk drive.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
A	**Independent Claim 1**: 1. An interface device for communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and	See '399 claim 1, row B1.
C	a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	wherein the interface device is configured by the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
K2	which signals to the host device that it is a storage device customary in a host device,	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
L2	whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
N1	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.	See above

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
A	**Independent claim 17**: 17. An interface device for communication between	See '399 claim 1, row A.
B2	a host device, which comprises a multi-purpose interface and a specific driver for this interface,	See '399 claim 11, row B2.
C	and a data transmit/receive device comprising the following features:	See '399 claim 1, row C.
D	a processor;	See '399 claim 1, row D.
E	a memory;	See '399 claim 1, row E.
F	a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and	See '399 claim 1, row F.
G	a second connecting device for interfacing the interface device with the data transmit/receive device,	See '399 claim 1, row G.
H	where the interface device is configured using the processor and the memory	See '399 claim 1, row H.
I	in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached at the multi-purpose interface of the host device,	See '399 claim 1, row I.
J	sends a signal, regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, to the host device	See '399 claim 1, row J.
K2	which signals to the host device that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L3	whereupon the host device communicates with the interface device by means of the specific driver for the multi-purpose interface, and	See '399 claim 11, row L3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1 "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
A	**Independent Claim 18**: 18. A method of communication between	See '399 claim 1, row A.
B1	a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface,	See '399 claim 1, row B1.
C	and a data transmit/receive device via an interface device comprising the following steps:	See '399 claim 1, row C.
F	interfacing of the host device with a first connecting device of the interface device via the multi-purpose interface of the host device;	See '399 claim 1, row F.
G	interfacing of the data transmit/receive device with a second connecting device of the interface device;	See '399 claim 1, row G.
I	inquiring by the host device at the interface device as to the type of device to which the multi-purpose interface of the host device is attached;	See '399 claim 1, row I.
J	regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device, responding to the inquiry from the host device by the interface device	See '399 claim 1, row J.
K2	in such a way that it is a storage device customary in a host device,	See '449 claim 1, row K2.
L2	whereupon the host device communicates with the interface device by means of the usual driver for the storage device, and	See '449 claim 1, row L2.
N2	wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a file allocation table and a directory structure.	See '449 claim 17, row N2.
N*5	**Dependent Claim 2**: 2. An interface device in accordance with claim 1, in which the directory structure has a configuration file for setting and controlling functions of the interface device or an executable or a batch file for conducting a routine stored in the memory or a data file used for transferring data from the data transmit/receive device to the host device or a help file for giving help on handling the interface device.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.*, March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. The FlashDrive may include configuration files and files used to transfer data from the data transmit/receive device to the PC.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
N*2	**Dependent Claim 3**: 3. An interface device in accordance with claim 2 wherein the configuration file is a text file.	
N*6	**Dependent Claim 4**: 4. An interface device in accordance with claim 2 wherein the executable file includes a Fast Fourier Transform routine for transforming data acquired by the second connecting device into the frequency domain and for examining frequency domain data.	
N*7	**Dependent Claim 5**: 5. An interface device in accordance with claim 2 wherein the executable file includes a data compression routine for compressing data to be transmitted from the data transmit/receive device to the host device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
N*8	**Dependent Claim 6**: 6. An interface device in accordance with claim 1 wherein, in response to a request from the host to read a boot sequence, the processor is arranged to send a virtual boot sequence to the host.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1 "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
N*9	**Dependent Claim 7**: 7. An interface device in accordance with claim 6 wherein the virtual boot sequence includes a starting position and a length of a file allocation table, an indication of a type of the storage device or a number of sectors of the storage device.	See above
N*10	**Dependent Claim 8**: 8. An interface device in accordance with claim 7 wherein, in response to a request from the host to display a directory of the storage device, a processor is arranged for transferring the file allocation table and the directory structure to the host.	See above
N*11	**Dependent Claim 9**: 9. An interface device in accordance with claim 1 wherein the file allocation table and the directory structure is transferred to the host in response to a request from the host to read data from or store data to the storage device.	See above
N*12	**Dependent Claim 10**: 10. An interface device in accordance with claim 1 wherein the directory structure includes a data file for transferring data from the data transmit/receive device to the host device wherein the processor is arranged to interpret a request from the host to read the data file as a request for a data transfer from the data transmit/receive device to the host, so that data is transmitted from the second connecting device to the first connecting device and to the host.	
N*13	**Dependent Claim 11**: 11. An interface device in accordance with claim 10 wherein the directory structure further includes a configuration file for specifying a time period for a measurement by the data transmit/receive device, wherein the interface device is arranged for simulating a length of the data file to the host that corresponds to an anticipated volume of data produced by the data transmit/receive device in the specified time period.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
N*14	**Dependent Claim 12**: 12. An interface device in accordance with claim 1 wherein the file allocation table includes information on numbers of blocks occupied by the data file wherein the interface device is arranged for receiving block numbers or a block number range from the host when the host wants to read the data file, and wherein the interface device is arranged to start a data transfer to the host, when the block numbers or the block number range is received from the host.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
N*15	**Dependent Claim 13**: 13. An interface device in accordance with claim 12 wherein the processor is arranged for formatting the data acquired by the second connecting device into blocks having a predetermined size, the predetermined size being suited for the storage device.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.
Y*	**Dependent Claim 14**: 14. An interface device in accordance with claim 1 wherein the functions are gain, multiplex or synchronization settings of the second connecting device.	

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
K2*	**Dependent Claim 15:** 15. An interface device in accordance with claim 1 wherein the storage device is a hard disk.	SanDisk FlashDrives can be embedded in digital cameras. *See, e.g.,* March 11, 1996 SanDisk press release; *see also* Polaroid PDC-2000 chart. "SanDisk IDE FlashDrive Series was designed to operate as 'Plug-n-Play' replacements for 1.8-inch and 1.3-inch IDE hard disk drives. With their integrated controllers and their 100% IDE (PC/XT or PC/AT) compatibility, these products can be deployed as a hard disk replacement in any system which supports the IDE interface." SanDisk, *General Flash Information* at p. 1. "SanDisk solid-state Flash drives appear to the host computer as a hard disk drive . . . ." "In an MS-DOS environment, a system will recognize the SanDisk solid-state Flash drive much like an IDE hard disk drive and assign it a logical drive (e.g. D:)." "The SanDisk Flash technology has a write/erase block size of 512 bytes of user data just like a rotating disk drive and is 100% DOS compatible." "SanDisk's Flash memory chips are designed to mimic the file structure of a disk drive and use the same 512 byte structure employed in all PC hard disk drives. This architectural difference makes the SanDisk cards 100% compatible with all MS-DOS applications and utility software." SanDisk, *General Flash Information* at pp. 2, 3.

PRIOR ART CLAIM CHART

Code	USP 6,895,449's Claim Language	SanDisk FlashDrive Series
E*	**Dependent Claim 16:** 6. An interface device in accordance with claim 1 wherein the memory has a data buffer for permitting independence in terms of time of the data transmit/receive device attachable to the second connecting device from the host device attachable to the first connecting device.	See '399 claim 3, row E*.