

to locate a free (unoccupied) directory entry. The process 465 next queries if the free directory entry is found (decision block 505). If so, it writes the name of the file or payload to the directory found (process block 510). Otherwise, it allocates a new directory page (process block 515) and advances to decision block 520, where it determines if the allocation is successful. If so, it proceeds to process block 510. Otherwise, it proceeds to process block 525, where it issues a failure message and exits.

From process block 510, the process 465 proceeds to process block 530, where it locates a free (unoccupied) space for transfer of the file or payload. It subsequently queries if this space is available, as shown in decision block 535. If not, the process 465 proceeds to process block 525. Otherwise, it proceeds to process block 540, where it transfers the file or payload to the space found on the device. The process 465 then adjusts the directory entry to point to the file or payload, and thereafter, terminates.

The present invention thus provides a system and method for delivering applications from system firmware to a storage device (such as compact disk (CD) drive, digital disk drive (DVD) drive, tape drive, floppy drive, hard drive, magneto-optical drive, document scanner, solid state memory device, zip drive, jazz drive, high density floppy drive (such as the Sony Hi FD drive), high capacity removable media device, low capacity removable media device, and combination high and low capacity removable media device (such as the Panasonic LS 120/super disk drive)) without the need for or availability of an operating system or a directory service.

Although the present invention has been described in terms of certain preferred embodiments, other embodiments apparent to those of ordinary skill in the art are also within the scope of this invention. Accordingly, the scope of the invention is intended to be defined only by the claims which follow.

What is claimed is:

1. A system for accessing at least one storage element in a processor-based system, comprising:

- a memory for storing instruction sequences by which the processor-based system is processed, the memory having at least one storage element;
- a processor coupled to said memory, the processor executes the stored instruction sequences; and
- a storage device coupled to the processor, where said storage device is local to the processor and the memory;

wherein prior to booting an operating system, the stored instruction sequences cause the processor to write the contents of the at least one storage element to the storage device, said act of writing being performed independent of a post-boot application program.

2. The system of claim 1, wherein the act of writing the contents of the at least one storage element to the storage device occurs prior to loading the operating system.

3. The system of claim 1, wherein the instruction sequences further cause the processor to initiate a boot sequence.

4. The system of claim 1, wherein the at least one storage element is a non-volatile memory.

5. The system of claim 2, wherein the storage device is selected from a group consisting of: a compact disk drive, a digital video disk (DVD) drive, a solid state memory device, a digital disk drive, a hard disk drive, magneto-optical disk drive, a tape drive, a zip drive, a jazz drive, a high density floppy drive, a high capacity removable media device, a low

capacity removable media device, and a combination high and low capacity removable media device.

6. The system of claim 1, wherein the storage device comprises a file system; wherein in the act of writing the contents of the at least one storage element to the storage device, the at least one storage element is a file; and wherein the act of writing comprises transferring said file to said file system in said storage device.

7. The system of claim 1, wherein writing the contents of the at least one storage element to the storage device comprises:

- (a) locating a start-up directory stored in said memory;
- (b) writing a name corresponding to the at least one storage element, to said start-up directory; and
- (c) transferring the contents of said at least one storage element to said storage device;
- (d) setting a directory pointer to said transferred contents.

8. A method for accessing at least one storage element in a processor-based system having a processor coupled to the at least one storage element and a storage device coupled to the processor, said storage device being local to the processor, comprising:

writing the contents of the at least one storage element to the storage device prior to booting an operating system on the processor-based system, wherein said writing is performed independent of a post-boot application program.

9. The method of claim 8, wherein the act of writing the contents of the at least one storage element to the storage device occurs prior to loading the operating system.

10. The method of claim 8, further comprising initiating a boot sequence.

11. The method of claim 8, wherein in the act of writing, the at least one storage element is a non-volatile memory.

12. The method of claim 8, wherein the storage device is selected from a group consisting of: a compact disk drive, a digital disk drive, a digital video disk (DVD) drive, a solid state memory device, a hard disk drive, magneto-optical disk drive, a tape drive, a zip drive, a jazz drive, a high density floppy drive, a high capacity removable media device, a low capacity removable media device, and a combination high and low capacity removable media device.

13. The method of claim 8, wherein the storage device comprises a file system; wherein in the act of writing the contents of the at least one storage element to the storage device, the at least one storage element is a file; and wherein the act of writing comprises transferring said file to said file system in said storage device.

14. The method of claim 8, wherein writing the contents of the at least one storage element to the storage device comprises:

- (a) locating a start-up directory stored in said memory;
- (b) writing a name corresponding to the at least one storage element, to said start-up directory;
- (c) transferring the contents of said at least one storage element to said storage device;
- (d) setting a directory pointer to said transferred contents.

15. A computer readable program product, comprising:

a computer usable medium having computer program code embodied therein for accessing at least one storage element in a processor-based system, the computer program product having:

computer readable program code for writing the content of the at least one storage element to a storage device prior to booting an operating system on the