WHAT IS CLAIMED IS:

1.   A system for storing data comprising:

memory space containing volatile memory space and nonvolatile memory space, wherein the nonvolatile memory space includes both multilevel cell (MLC) space and single level cell (SLC) space;

5   at least one controller to operate memory elements and associated memory space;

at least one MLC nonvolatile memory element;

at least one SLC nonvolatile memory element;

at least one random access volatile memory element;

an FTL flash translation layer, wherein the at least one controller, or FTL, or a

10   combination of both maintain an address table in one or more of the memory elements; and

wherein the address table maps logical and physical addresses adaptable to the system, wherein the mapping is performed as necessitated by the system to maximize lifetime, and wherein the mapping maps blocks, pages, or bytes of data in either volatile or nonvolatile, or both, memories.

2.   The system of Claim 1, wherein the memory elements are a module, standalone device, or multi-chip package.

3.   The system of Claim 1, wherein at least one of the volatile or nonvolatile memories are embedded in the at least one controller.

4.   The system of Claim 1, wherein the nonvolatile memory is flash memory.

5.   The system of Claim 1, wherein the nonvolatile memory is phase-change memory.

6.   The system of Claim 1, wherein the nonvolatile memory is magnetic random access memory.

7.   The system of Claim 1, wherein the volatile memory is dynamic random access memory.

8.   The system of Claim 1, wherein the volatile memory is static random access memory.

9.   The system of Claim 1, wherein the at least one SLC nonvolatile memory element includes a hard disk drive (HDD).