**2-3 Journal: Embedded vs Desktop Systems**

Desktop and embedded computers may have a variety of non-volatile memory types. The contrast between volatile and non-volatile memory must first be understood, in my opinion. Volatile memory has to be powered in some way to operate. When the power supply is off, the data stored in the memory is lost or rendered unavailable. Two types of this volatile memory are dynamic random-access memory (DDRAM) and static random-access memory (SRAM). Non-volatile memory maintains the data that was previously put there even after the power source is shut off. The most widely used non-volatile memory formats include SD Card (Secure Digital Card), flash, SSD (Solid State Disc), PROM (Programmable Read-Only Memory), EPROM (Erasable Programmable Read-Only Memory), and PROM (Programmable Read-Only Memory). The program code and any other form of data that has to be saved when the power source is turned off are stored on it in embedded systems. (Open4Tech)Now, it is very clear how non-volatile memory in an embedded system differs from that in a desktop. The instructions needed to load the operating system must be permanently saved on desktop PCs. Embedded systems, such as the engine control computer in a car, must continue their instructions even after the power is turned off. (Wikipedia) The following distinction between desktop computers and embedded systems is made as a result.

Desktop computers have several broad purposes, but embedded systems only have one. Many other jobs may be completed on desktop computers, such as typing this now and publishing it online later. While embedded systems, such as a music player or the ice maker in a refrigerator, only have one purpose. Although embedded systems only actually serve one fundamental purpose, there are still many advantages to employing various embedded system designs since they increase the scalability and dependability of systems. Additionally, embedded systems with various system architectures will be subject to fewer constraints.

**References**

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