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CS 350 – Module 2 Journal

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1. **How is non-volatile memory different in an embedded system and a desktop system?**

The way I see how non-volatile memory differs between the two systems is read-only information code for the system. Non-volatile memory is how the information is being stored even the power source is removed. The saved information in the embedded system like a Christmas card will be still saved on the system because it is not new information. The read only information will only be stored on the embedded system or any storage system connected to the embedded system. A desktop system has the ability to transfer the non-volatile memory to other systems or memory devices like a flash drive or another computer due to zip transfers.

1. **What are the differences between embedded systems and desktop systems?**

I researched the difference between these two systems, and I found a list of 18 differences between these systems located on GeeksforGeeks (1). A desktop system can perform many tasks while an embedded system performs limited tasks. A desktop system needs human interaction to perform its tasks while an embedded system does not need human interaction. Desktop System can be placed into other systems but are also to perform on their own. An embedded system only exists in other systems. Examples of these are comparing a laptop to a Ring doorbell. A laptop needs human interaction to turn on and to perform its many tasks such as search on a task bar, activate software programs, and cause the hardware to work together. The Ring doorbell does not need human interaction to turn on if its motion sensor picks up a motion in its area and it turns the system on. The Ring doorbell embedded system function is to activate, record, and store the activation motion. The Ring doorbell also is integrated into the doorbell system and is not its own stand-alone function.

1. **What are the advantages of various embedded system architectures?**

Advantages of embedded system are the following list (2):

* Embedded systems are fast in performance.
* These systems consume less power
* Small in shape and size.
* These systems are so scalable and reliable.
* Works on wide variety of sectors and environments.
* Improve product quality and enhance performance.
* Performs specific tasks without error.

We can see some of these advantages with many systems in today’s age. We can see these in musical cards for events such as birthdays, holidays, and major events. Look at birthday cards, an embedded system is small enough to fit inside the card and it is able to activate when an event such as opening the card happens. The embedded system does not need a lot of power and it is able to play music due to the event placed on the system.

**CITATIONS**

1. *Difference between Computer and Embedded System*. GeeksforGeeks. (2020, June 16). https://www.geeksforgeeks.org/difference-between-computer-and-embedded-system/.
2. *Architecture of an Embedded System: Set-3*. GeeksforGeeks. (2020, June 9). https://www.geeksforgeeks.org/architecture-of-an-embedded-system-set-3/.