

* How do work device drivers?

A) * A device driver is a Computer program that operates
(a) Control a particular type of hardware device
Attached a Computer

* This device drivers depend upon the operating system instructions to access the device & perform any particular action

* functions of device driver

Manage power requirement

Manage the log events

check input parameters if they are valid

check the device if it is use

* Ex:- printers, scanners, digital cameras, video adapters

* difference between general purpose computer system & Embedded system

a) general purpose computer system Embedded system

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| <ul style="list-style-type: none">* it can be done multiple task as per requirement* it is designed by using micro processor main as processing unit* performance faster* High power consumption
[CPU slow down their clock rate it may reduce the voltage, & CMOS circuits draw the power in two ways (1) static power (leakage) & dynamic power (toggling/switching)]* Occupy more memory space* Response time will be less compare to embedded system | <ul style="list-style-type: none">* it can be done particular predefined task* it is designed by using micro controller main as processing unit* fixed run time requirement* less power consumption
[The working life of the embedded system is improved due to less power wastage/heat, & components are on for a limited time only]* Occupy less memory space* Response time will be more |
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* Difference between RTOS system & G.P.C system

<u>Real time operating system</u>	<u>general purpose ^{computer} system</u>
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* These operating system guarantee that critical task be completed within a range of time

* There is a task deadline

* it has a higher reliability

* it is provide deterministic behaviour

(RTOS consume only expected amount of time)

* it is used for dedicated electronic Application

* it can be done multiple task as per requirement

* There is no task deadline

* it has a less reliability

* it is non deterministic behaviour

* it is used in general universal application

* How Can Hardware understand the codes that we write in Embedded sy

A) In embedded system hardware itself does not inherently understand high level programming code that developers write

* Embedded system typically consist of micro controller or micro processor that is capable of executing machine code

* All codes weq writed translated into set of 0's & 1's by a compiler

* The C.P.U heart of the computer it can understand only machine language that codes 0's & 1's