DISPLAY MONITOR IDENTIFIER

HP INC
1. Problem(s) solved

Computer has more complexity display ports connectivity. The user would be easily confused and don’t know which cable needs to be disconnected while moving or removing the devices from system.

Here providing a mechanism, to easily indicate which display monitor is connecting the port on system that the user would like to adjust.

2. Prior Solutions

1. Tag on it, and hand trace, however tag or sticker could be easily fall off.

2. Issue the software command in system OS, to see if any result reflect on the device, for example, monitor: pop out msg for display located, which could consume time to find it.

Description

For display port, HDMI, here using button or switch on the system, as picture below. While we trigger the button or switch, for example port A, the display monitor connecting port A would pop out the message or a sign for indication. The user could easily identify which display monitor should be moved or removed from system.
The button or switch would trigger a low or high signal to the PCH/SIO, each port has individual trigger signal, as an interrupt, trigger the Software tool and judge if it fits the criterial to pop out the msg on the correlative display monitor.
For type-C display, propose to use exist hardware construction. User could long press the “setting” button, the long press detected by configuration channel logic controller (CC controller) via GPIO on the display monitor and sent the signal to system through type-C cable, system CC controller decodes the message and trigger the GPIO signal to PCH/SIO, following same mechanism as above, SW tool start identify further to pop out the message on the display.

3. Advantages

User could easily identify which display monitor needs to be disconnected while intend to move or remove the device from system, this could not only prevent incidentally remove the device that needs to be connected in system but also could save the time for user to hand trace cable or log into system to identify the display monitor, which is very time consuming, further improve the user experience.

4. Abstract

Multiple Display monitor is needed in computer system, the connectivity is more complex. However, if same type of cable is multiply used on same one system at same time, how do we
know which cable connect to which devices? Here proposed a mechanism for users to easily identify the display monitor.

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