COUPLING A PEN DEVICE TO A COMPANION DEVICE BASED ON PEN PROXIMITY

CROSS-REFERENCE TO RELATED APPLICATION

This application claims priority to U.S. Provisional Application No. 62/696,331, filed Jul. 10, 2018, the entirety of which is incorporated herein by reference.

BACKGROUND

[0001] Many modem computing devices pair with pen or stylus devices and are configured to interact with them. Pen devices may include wireless communication capabilities that are used for inking, and off-screen control based on tail button clicks, battery state reporting, pen firmware updates, and/or telemetry. Some existing systems include the implementation of a "downlink" capability to the tip of the pen from which the identity of the pen can be established by a computing device. This enables the computing device to initiate a pairing procedure. However, these configurations have drawbacks. For example, the pen needs to be explicitly put in "pairing mode" by a long press of the tail button (e.g., the pen/device is not discoverable). Further, because of the need to explicitly have a single paired device in some systems, the pen can only target the last device on which the pairing process was completed, not necessarily the last device the user inked on (e.g., the device that the user has most recently written or drawn on with the pen device tip).

[0002] To utilize the full functionality of the pen, and not just inking, users must pair their pens with the companion devices (e.g., via Bluetooth) in existing systems. There are several ways in which Bluetooth pairing is possible, but some users do not pair their pens given the difficulties involved in current pairing processes and, therefore, do not get the benefit of the full functionality of the pen.

SUMMARY

[0003] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter.

[0004] A computerized method and system for coupling a stylus and a computing device is described. Based on a tip of a stylus being brought proximate to a display of a computing device configured to communicate in accordance with a first wireless protocol, the computing device is configured to receive, via a communication channel of a second wireless protocol, a stylus wireless protocol identifier from the stylus and transmit, via the communication channel, a wireless protocol identifier of the computing device to the stylus in response, whereby the stylus and computing device are coupled. Based on receiving a signal associated with user input from the coupled stylus via the wireless protocol, the