

analysis according to the matching metric scores determined for the various candidates, and maintaining a record of which analysis generated each of the candidate words. If the user selects a word candidate generated by the second analysis, the input paths are discarded and the system continues in its normal fashion. If the user selects a word candidate generated by the first analysis, the system then performs a third analysis of the second input path that was recorded following the momentary lifting of the stylus. The results of the third analysis are then presented in a word choice selection list, and the system continues in its normal fashion. In another aspect, the pre-defined threshold time interval is defined automatically with respect to the minimum time interval measured by the system between lifting the stylus at the end of an input path and touching it down to start the next input path when a word is accepted for output from the analysis of the input path preceding the stylus lift, and a word is also accepted for output from the analysis of the input path following the stylus lift. This provides the system with a measure of the shortest time interval during which the user is able to perform an intentional stylus lift. The pre-defined time interval used in the current aspect is then defined as a pre-determined fraction of the measured minimum time interval.

[0192] Unintentional lifts of the stylus happen commonly in two situations. One is a novice user who may tend to use a very light touch with the stylus, and momentarily lifts the stylus unintentionally in the middle of entering an input path for a word. The second is when the device is used in an unstable environment such as a moving vehicle, where the vibration of the vehicle's motion can easily cause the stylus to be lifted momentarily from the touch-screen. In either case, when an input path that is intended for a single word is entered as two separate path sections, it is virtually assured that the intended word would not be recognized, and that instead two unrelated words would be output. The current aspect of the system is highly advantageous in that the effect of such a momentary stylus lift on the user is negligible, since in most cases the intended word appears as the default word and the user is often unaware that an unintentional stylus lift has even occurred.

[0193] In another aspect, one feature that is inherent in the use of a system of this nature is that users will tend to trace out input paths faster and faster (and consequently with less and less precision) until a point is reached at which a certain number of "errors" occur in which the word candidate identified as the most likely candidate (the default word in the word choice list, if one is displayed) does not correspond to the user's intended word. Furthermore, an observed tendency of many users is to continuously input a stream of words, focusing on the input task of tracing input paths and in general not attending to which words have been correctly recognized and output in the target text application. At some point the user pauses, and looks at the text recently produced, and observes if any words have been output that do not correspond to the user's intention. In one aspect, the system allows the user to select a word in the output text for re-editing by highlighting the word to be edited or by positioning the text cursor within the boundaries of the word and activating a designated "Re-Edit" editing function key. In another aspect, to make the process of correcting such recognition errors as efficient as possible, the system recognizes when a pre-determined stylus action or gesture is performed in the output text region, and identifies the word

in the output text region closest to where the pre-determined stylus action or gesture was performed as the target word for re-editing. In one embodiment, the predetermined stylus action is a "double-tap" of the stylus on a word. In another embodiment (for example, where the system is operated using a cursor movement control device such as a mouse), the predetermined editing action is (for example) to briefly hover the mouse over the word to be edited, then quickly move the mouse back and forth one time (this is simply an exemplary gesture, as many such gestures can be defined).

[0194] FIG. 2D shows how the Re-Edit function can be activated by the Re-Edit function key 2224, or by performing the predetermined stylus action or gesture on a previously output word ("great" 2400 in FIG. 2D) to correct it when the user has unknowingly accepted the default word for output to the text area 2106 in an instance where the default word did not correspond to the intended word. In another embodiment, when the Re-Edit function key 2224 is tapped and no word is currently highlighted, the system identifies the word containing or adjacent to the current text cursor location and automatically selects it as the target of the Re-Edit function. In one aspect, the system stores a list of the highest scoring alternate candidate words identified for at least some of the most recently output words. When the Re-Edit function is activated, the system then displays a word choice list containing the list of words originally identified as the most likely matching words in the order determined by the scoring metric values calculated with respect to the original input path entered by the user for the target word. In another preferred embodiment, the originally output word is omitted from the displayed word choice list since the Re-Edit function is only activated in order to replace it. FIG. 2D shows the resulting selection list 2402. In this example, the originally intended word "heat" appears as the first word 2404 in the selection list 2402 because it was determined to be the second-most-closely matching word with respect to the original input path (following the word "great" which was originally output as the default word). Selecting the word 2404 in the selection list 2402 automatically replaces the highlighted target word "great" with the originally intended word "heat" in the output text area 2106.

[0195] In another embodiment, the system tracks the location of the text insertion location in the text output region, and immediately following the selection of a word from the generated word choice selection list and the replacement of the previously output word, the text insertion location is automatically restored to its former location in the output text prior to the performance of the pre-determined stylus action or gesture. In another aspect, when the generated word choice selection list is cancelled without selecting a replacement word, the identified word remains highlighted and the text insertion location is not restored to its former location in the output text so that other actions may be taken with respect to the still-highlighted identified word. In another aspect, when an input path is traced on the keyboard (or when a key is tapped) without selecting a replacement word from the generated word choice selection list, the word choice selection list is automatically cancelled, the text insertion location is not restored to its former location in the output text, and the text generated in response to the traced input path is sent to the text output region and, in accordance with the standard behavior of word processing programs, consequently replaces the previously output word by virtue