trical connection between elements of the base unit **12** and elements of the display unit **10** so that signals representative of user input, data, control commands, status information and the like may be passed therebetween.

[**0035**] Embodiments of Type Shown in FIGS. **1-6**

[**0036**] In embodiments of the present invention, the display unit **10** of the portable computer may be connected to the base unit **12** utilizing a hinging assembly **13**. As shown in FIGS. **1-6**, the display unit **10** includes a display screen **14** and a display screen frame **16** that includes a back surface **17**. The base unit may include a keyboard **18**, a pointing device **20**, a central processing unit (CPU) (not shown), and a memory (not shown). A hinging assembly **13**, including an A hinge **32**, a B hinge **30** and an armature **33**, may couple the base unit **12** to the display unit **10** so that they may rotate relative to each other. In the illustrated embodiment, a portion of the B hinge **30** is fixedly coupled to the display unit **10** and another portion of the B hinge **30** is fixedly coupled to the armature **33**. Similarly, a portion of the A hinge **32** is fixedly coupled to the base unit **12** and another portion of the A hinge is fixedly coupled to the armature **33**. For both hinges, the portion connected to the armature **33** rotates in relation to the portion coupled to either the base unit **12** or the display unit **10**.

[**0037**] The portable computer may be placed in a "closed configuration," which protects the display screen **14** and the keyboard **18**, pointing device **20** or other primary input device(s) form damage. The portable computer may be placed in the closed configuration when it is being stored or transported or is otherwise not being operated. The portable computer may be operated in either of two configurations, the "laptop configuration" or the "tablet configuration." These three configurations are further described below.

[**0038**] FIGS. **2**(*a*)-**2**(*c*) and **4**(*a*)-**4**(*c*) illustrate how the A hinge **32** may be rotated to allow the display unit **10** to be tilted relative to the base unit **12** to place the portable computer in one of the three configurations. **FIG. 2**(*a*) illustrates the use of A and B hinges in the portable computer in the closed configuration according to an embodiment of the present invention. **FIG. 4**(*a*) presents a side view of the portable computer in the closed configuration according to an embodiment of the present invention. The portable computer may be placed in a closed configuration where the display unit **10** rests directly in contact with the base unit **12** so that the display **14**, the keyboard **18**, and the pointing device **20** are in between the display unit **10** and the base unit **12**. In the closed configuration, the display unit **10** is rotated 0 degrees relative to the base unit **12**.

[**0039**] In order to move the portable computer from the tablet configuration past the laptop configuration to the closed configuration, the A hinge **32** and the B hinge **30** may be rotated, either individually or simultaneously. In embodiments of the invention, one of the hinges may be rotated to transition the portable computer from the closed configuration to the laptop configuration, and the other hinge may be rotated to transition the portable computer from the laptop configuration to the tablet configuration. For example, in the embodiment shown in FIGS. **1-6**, when the portable computer is in the closed configuration, a user may apply a separating force to rotate said display unit **10** relative to said base unit **12**. The initial application of this separating force may cause only the A hinge **32** to rotate until the portable computer reaches the laptop configuration. One embodiment in which the hinges rotate individually is described in greater detail with respect to **FIG. 3**.

[**0040**] In embodiments of the invention, the rotational range of the A hinge **32** may be limited to an upper limit that is reached when the portable computer is in the laptop configuration. For example, in the embodiment shown, the rotational range of the A hinge **32** may be limited such that no further rotation of the A hinge **32** occurs after the display unit **10** forms about a 110° angle with said base unit **12**. In embodiments of the invention, the range of rotation of the A hinge **32** may be limited by a physical stop, which may be located on an external or internal surface of the A hinge **32** and/or on a surface of the display unit **10** or base unit **12**.

[**0041**] **FIG. 1** illustrates the portable computer in the laptop configuration. In the laptop configuration, the bottom surface **15** of the base unit **12** may rest on a planar surface (such as a desktop, a user's lap or palm, or a similar substantially flat surface) and the display unit **10** may be rotated approximately 90° relative to the base unit **12**. In the embodiment shown, this "laptop tilt angle" formed between the display unit **10** and the base unit **12** is actually closer to 110°, and it should be understood that the laptop tilt angle may be selected so as to optimize user comfort and display screen **14** visibility while the portable computer is being used in the laptop mode. In this embodiment of the invention, the portable computer may be placed in the laptop configuration by rotating hinge A **32** in direction 1 about a horizontal axis so as to tilt the display unit **10** relative to the base unit **12** until the laptop tilt angle is reached (as shown in FIGS. **2**(*a*), **2**(*b*) **4**(*a*) and **4**(*b*)). In the laptop configuration, the user may utilize the pointing device **20** or keyboard **18** to send user input signals to the CPU (not shown), which may be in the base unit **12**. The results of the user's interaction and other output from the CPU may be shown to the user on the display screen **14**.

[**0042**] It should be understood that when the user is utilizing the portable computer in the laptop configuration, the user may make minor adjustments (e.g., up to about 15 degrees in either direction) to the tilt angle of the display unit **10** for optimal viewing ease, etc. Such adjustments should not be considered different configurations of the portable computer and shall be considered part of the "laptop configuration" throughout this description of embodiments of the invention.

[**0043**] **FIG. 3** illustrates a cross section of the A hinge **32** and B hinge **30** according to an embodiment of the present invention. In embodiments of the invention, the A hinge **32** may have a low friction device **38** surrounding the A hinge shaft **37**. However, the A hinge **32** may allow a different friction in each direction. In embodiments of the invention, a directional clutch **40** may be used to allow the A hinge **32** to rotate with different levels of friction when rotated in opposite directions. For example, the directional clutch **40** may allow the A hinge **32** to rotate with a low level of friction in an opening (clockwise) direction (shown as direction one in **FIG. 2**(*b*)) and may engage a higher level of friction in the closing (counterclockwise) direction (shown as direction two in **FIG. 2**(*b*)). In alternative embodiments of the invention, the B hinge **30** may have a lower level of friction resisting its rotation than the A hinge **32**, causing the B hinge **30** to move before the A hinge **30**.