

## AlphaSmart 3000: Part I: An essential part of the AT toolkit

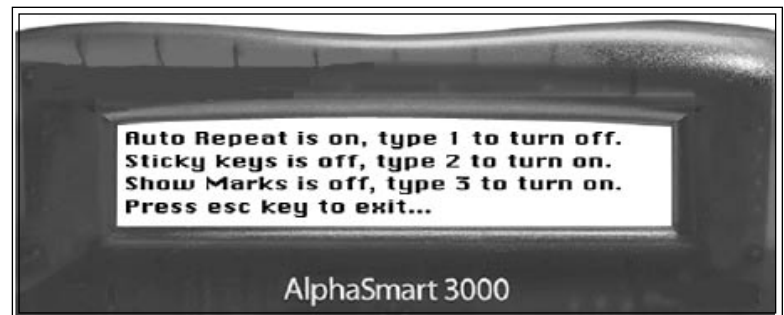
By **Brian S. Friedlander**

As a good craftsman will tell you the nature of his work is dependent on the quality of the tools that he uses. This is no less true of the tools educators use in their toolkit as they try to find a good match between the tool and the student. As an assistive technology consultant, I am always striving to find tools that are flexible and can be easily adapted for the individual. In this article, I will discuss how the AlphaSmart can be individualized to meet the needs of a wide range of students. To this end, the AlphaSmart is part of my assistive technology (AT) toolkit and one tool that I find to be indispensable. With the advent of the AlphaSmart 3000, the company opened up the architecture to allow for the development of what are called applets. Applets are small applications that can be downloaded to the AlphaSmart 3000 to give the device extended functionality. Part I of this article will focus on how to individualize and use the features found in the AlphaSmart 3000 to meet the needs of students. Part II of this article will explore how the Co:Writer SmartApplet from Don Johnston, Inc., can be used with students to extend the functionality of the AlphaSmart 3000.

When we look at how most of the students we work with access a computer, it is generally done via the keyboard. While many of us may take for granted that we have the fine-motor dexterity and coordination to access the keyboard, for

some of the students we work with, having the ability to control some of the features of the keyboard can make a significant difference in whether they will be able to use a portable note taker. Take for example, the simple act of capitalizing a letter at the beginning of a sentence. Now, think of the steps that you need to do to accomplish

but allow the AlphaSmart to do the work of holding the Shift key or any of the other modifier key (Alt, Command, Option) down. To turn on Sticky keys from the AlphaSmart 3000 keyboard, hold down the Command-Option-k keys. You will be taken to another screen with various options. You will note that the second option is:



AlphaSmart 3000

this. You must be able to coordinate holding down the Shift key, and then strike the key that you want capitalized. As you can see this is a rather complex motor task that can be quite difficult for children or adults with fine-motor coordination problems. But, if we look more closely at the AlphaSmart, you will see that just below the surface of this portable note taker are ways to configure the AlphaSmart so that we can turn on a feature called Sticky keys. Once Sticky keys is turned on, the student can press the Shift key, lift their finger and the AlphaSmart will keep the Shift key latched until the next key is pressed. Now the student doesn't have to coordinate the movements,

Sticky keys is off, type 2 to turn it on. Press the the number 2 key and then press the Esc key to exit. Now give it a try by spelling your name! Press the Shift key and take your finger off the key when you are done. Now press the first letter in your name and you should notice that it was capitalized. Now type the next letter and it will unlatch the shift key and the letter should be lower case. You should also note that when Sticky keys is turned on, your should see the letter S on the lower right of the LCD screen, when the Shift key is pressed. To turn off Sticky keys, press Command-Option-k, and then press the number 2 key. When you are done press the Esc key. You should note

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that even when you turn off the AlphaSmart 3000, it will retain the Sticky key feature if you turned it on for a student.

## AlphaSmart 3000 screen: Keyboard features

If you work with young children or students who have a propensity to keep their fingers on the keys too long, they will undoubtedly get a string of repeated letters on the AlphaSmart 3000 LCD display. Wouldn't it be great if you could turn off the Auto Repeat feature so that no matter how long the student kept his/her finger on a key, they would see only one letter on the LCD display. Well this is another feature that can be turned on or off from within the AlphaSmart 3000. By pressing the Command-Option-k sequence you can get to the AlphaSmart screen that will let you turn the Auto Repeat feature off. By default, the Auto Repeat feature is set to on, but to turn it off, simply press the number 1 key and then press the Escape key to exit the screen. Now go back to typing some text and see what happens when you press a key too long - you should now only get one letter on the LCD screen.

While setting the Auto Repeat to off is a big help for students who press too long on a key, how do you accommodate for the student who may have tremors or who may have difficulty accurately hitting the targeted letter? In this situation, many assistive technology consultants may look to use a keyguard which may prevent the student from pressing errant keys and help them guide their finger to the right key. However, one of the new features which was recently added to the AlphaSmart when you upgrade to version 1.4 of Alphaword, is called Slow Keys. Slow keys, in effect, lets you set the time delay before the AlphaSmart 3000 accepts the key stroke. Think about that for a moment. You now have the ability to set the amount of the delay before the AlphaSmart 3000 accepts the keystroke. For students with mild cerebral palsy or those who present with tremors, this is truly an incredible feature that only recently has been added to the feature set.

As mentioned, you will need to make sure that you have Alphaword 1.4 loaded on your AlphaSmart 3000 to access the Slow Keys feature. To update Alphaword, just go to the AlphaSmart Web site at

[www.AlphaSmart.com](http://www.AlphaSmart.com) and click on the Download button. Once you have Alphaword 1.4 loaded, to access the Slow Keys feature you will need to press Control-Command-Option-k, which will take you to the Slow Keys setting screen. By default the Slow keys feature is set to off, however, to change it, you will need to press the Up arrow key to increase the delay which can be set in tenths of a second. You can set the delay in Slow Keys from one tenth of second to three seconds. Once you have figured out how long a delay you would like to set, just press the Enter key and you are done. In most cases, setting the Slow keys to 1 or 2 tenths of a second is probably all you will need do to make this feature beneficial to the students you work with. Some trial and error may be necessary to find the right setting, but like everything else, it is a tradeoff and only you can figure out what the best setting is for the students you work with. In many cases, having the ability to set the Slow Keys may eliminate the need for the student having to use a keyguard at all. Having said this, there may be times when using low tech adaptation can make a difference for a students using the AlphaSmart 3000.

Three add-ons that are worth noting for the AlphaSmart 3000 are: moisture protectors, angled stand, and keyguard. All three add-ons are carried and manufactured by Inclusive Technologies, a British company which recently opened a division right here in the United States. Inclusive Technology has manufactured a very sturdy and durable metal keyguard that slips right onto the AlphaSmart 3000. Similarly, they have manufactured a handy angled stand that will make it easier for some students to access their AlphaSmart 3000. Lastly, if you need to protect your AlphaSmart from moisture, then you will definitely want to take a look at the custom moisture guard that Inclusive Technology has manufactured. All three low tech solutions may be indispensable and may make the difference as to whether the AlphaSmart 3000 is a viable solution for the students you work with.

After using the AlphaSmart 3000, you will come to learn just how flexible it is to use and accommodate to the needs of a wide variety of students. I was recently doing an AlphaSmart 3000 workshop when

I introduced an idea; that one could actually change the configuration of the keyboard layout to accommodate a student who only has use of their right or left hand. An occupational therapist in the audience was elated when she saw this feature because she was soon going to be working with a student who only had use of his right hand. The right and left one-handed layouts allow individuals who only have use of one hand to be more efficient when typing. Built into the AlphaSmart 3000 is the capability to configure the keyboard in four different layouts. The layouts include: Qwerty (default), Dvorak, right (one hand), and left (one hand). (I should caution, if you attempt to change the layout please have your AlphaSmart 3000 manual handy. Don't say I didn't warn you!) To change the layouts press the Command-Option-l key to take you to the layout configuration screen. To change to any of the other layout configurations you would simply just type the number 1, 2, 3, or 4. For example to change the keyboard layout to the Right one-handed, simply type the 3 key. With the manual in hand, pop off the key caps and change them so that they are consistent with the keyboard layout in the manual. For more information about the alternate keyboard layouts please refer to pages 43-45 in the AlphaSmart 3000 manual. Once you have changed the layout on the AlphaSmart 3000, the student can then plug it into any computer and use it with the reconfigured layout.

As you can see, the AlphaSmart 3000 has many built-in features that can be configured to meet the varied needs of the students you work with. In Part II of this article, which will appear in the next issue of *Closing The Gap*, I will explore the use of the Co:Writer Smart Applet with the AlphaSmart 3000. I will show you how you can expand the functionality of the AlphaSmart 3000 by adding a powerful word prediction application.

## Products

### AlphaSmart 3000

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**Co:Writer Smart Applet****Co:Writer 4000**

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