SmartKeys 2.1

Introduction

SmartKeys 2.1 is a freeware control panel designed to assist Macintosh typists by allowing them to type on the Macintosh as if it were still a typewriter. Specifically, it can perform six different tasks divided up into individual smartkeys as follows:

Smartkey	Function
Space	Prevents typing of more than one space.
Dash	Converts two consecutively typed hyphens into a dash.
Quote	Converts typewriter quote marks into true quotation marks.
Ligatures	Converts the character components of a ligature into one.
Kill Doubled Caps	Converts the second of two consecutively typed capitals into a lowercase letter when the second capital is followed by a lowercase letter.
Shifted Punctuation	Converts the < and the > math symbols into the comma and period respectively.

SmartKeys 2.1 succeeds its predecessors, SmartKeys 2, SmartKeys (1.0), and the OneSpace INIT.

New Features since SmartKeys 2.0

1) Much expanded Smart Fonts option.

2) New Smart Toggle option.

3) Completely System 7 savvy.

4) Smart Accessibility feature in control panel.

5) German Quotes option.

6) Bug fixes.

System Requirements

SmartKeys 2.1 will run with system version 6.0.2 or later; however, 6.0.4 or later is recommended, and no change made in the control panel will take effect immediately unless system 6.0.4 or later is running. SmartKeys 2.1 is also System 7 savvy. Finally, the Macintosh has been designed to be compatible with many different languages. SmartKeys 2.1 does not apply to all of them and does not function if the active script system is not the Roman one. In addition, the smartkey that handles the shifted punctuation conversion (< into , and > into .) does not function unless the keyboard layout (technically called the KCHR) is set to the US one.

Installation

To install the SmartKeys 2.1 program, drag it into the System Folder and reboot your Macintosh. With System Software 7.0, you can still drag it into the System Folder. A dialog box will prompt you if want to install Smartkeys 2.1 in the Control Panels folder. Click OK. You can also drag Smartkeys directly into the Control Panels folder. On rebooting, SmartKeys 2.1 will display an icon indicating it has loaded itself and is running.

Preferences File

When SmartKeys 2.1 is first loaded, it will create a preferences file in the System Folder where its settings will be stored. In System Software 7.0, the preferences file is created in the Preferences Folder. You can rename this file to whatever you wish, but you cannot move it to another folder. If you remove the file, SmartKeys 2.1 will create a new one the next time it is loaded at startup or accessed from its Control Panel. (If you wish, you can change the name of the default preferences file that SmartKeys creates and looks for initially by altering "STR#" resource - 4036 within the SmartKeys 2.1 file.)

If a preferences file from SmartKeys 2.0 is present, it will be converted to SmartKeys 2.1 format automatically the first time SmartKeys 2.1 is loaded at startup or opened in the Control Panel. (Desk accessories added to the exclusion list in System 7 will have to be removed and re-added. See the Compatibility section below for more information.)

Control Panel Overview

Changing SmartKeys' settings involves accessing its control panel. Choose Control Panel (Control Panels in System Software 7.0) from the Apple menu. In System Software 7.0, the SmartKeys' control panel appears by itself and contains four panes. In System 6, the control panel interface is divided up into five panes. The uppermost pane contains the Smartkeys 2.1 logo as well the display startup icon button. As noted earlier, when Smartkeys 2.1 loads at startup, it displays a startup icon. If you don't want this icon to appear, uncheck this button. If you don't want SmartKeys 2.1 to load at all, hold the shift key down at startup just before SmartKeys 2.1 is about to load. In this case, it will display an icon

to this effect even if the Display Startup Icon button is unchecked.

The pane below tells you which smartkey the current settings are currently being displayed for. There is a popup menu to choose the smartkey for which the current settings will be displayed.

When running System 6, a help button appears at the rightmost part of this pane. Checking this button engages the context-sensitive help. A help message will be displayed in the lowermost pane for each item that the mouse is over. Typically, the help messages explain what an item will do when it is checked or clicked on. When running System 7, however, neither the help button nor the lowermost pane appears. Instead, users can use System 7's Balloon Help.

The settings for each smartkey reside in the next two panes, which are side by side. The left pane contains all of the state settings; that is, those that are either on or off. The right pane contains controls for maintaining a list of excluded applications, desk accessories, and fonts for the current smartkey.

Space Smartkey

Many of us have been taught to type two spaces after a period and have taken this rule with us to the Macintosh keyboard as well. However, this rule was meant for use on typewriters. Style manuals and typing instructors never anticipated that professional typesetting equipment, the Macintosh that is, would become available for the masses. Now that typesetting is available, there is reason to use it as such. That is to say, memos, business letters, as well as term papers, and whatever else should be typeset. The only reason that something was typed in the past was that it was all that was available. As a result of so much experience with this typewriter-specific rule, some users have trouble breaking this habit. The space smartkey thus prevents the user from typing more than one space character in a row.

In the SmartKeys' control panel, toggle the space on or off with the On button. When attempting to type more than one space, SmartKeys 2.1 can be set to beep by turning on the smart beep button. This might be helpful for typists who are trying to become consciously aware of their habit in an attempt to break it.

For users who want to prevent multiple spaces after punctuation marks only, check on the Smart Punctuation button. SmartKeys 2.1 will block multiple spaces if the first space follows one of the following punctuation marks, comma, period, semicolon, colon, neutral single quote, neutral double quote, single close quote, double close quote, close parenthesis, question mark, exclamation mark, en dash, and em dash.

Dash Smartkey

Typing two consecutive hyphens to represent a dash in typewriting is practically a necessity because typewriters usually don't have dash

characters available. Most Macintosh fonts do, so it makes sense to use the dash. This smartkey will come in handy for those who have trouble breaking the habit. When a user types the second of two consecutive hyphens, SmartKeys 2.1 backspaces over the first one and types a dash instead. This dash character is accessible from the keyboard by typing option-shift-hyphen when using the US keyboard layout.

If a user still wants to be able to type the second hyphen on the fly, it is possible when the Smart OVERRIDE feature is enabled for the dash smartkey. Smart Override is always engaged by holding down the command and option keys and typing the original character. For the dash, when typing the second hyphen, hold down the command and option keys, and SmartKeys 2.1 will type an ordinary hyphen.

Another setting available is to automatically insert a space before and after the dash. To do this, check the Add Spaces button.

The user can also choose between an em dash, the default, or an en dash, generally accessible from the keyboard directly by typing option-hyphen when using US keyboard layout. The em dash, so-called because it is usually the width of capital letter M, is the dash that is most often used to mean a dash. The en dash, so-called because it is usually the width of a capital letter N, is the dash that is most often used as a subtraction symbol or to indicate a separation in a range of years, as in 1984–1991. Check the USE en dash button to use en dashes. When unchecked, SmartKeys 2.1 will automatically default to em dashes.

Sometimes, users may find themselves having to switch between typing en dashes and em dashes often. To accommodate this, SmartKeys 2.1 implements a new feature called Smart toggle. When enabled by checking its corresponding button, typing a hyphen right after typing a dash will toggle it with its complementary sized dash. That is, a hyphen typed after typing an en dash will be toggled to an em dash, and an em dash will be toggled to an en dash. However, toggling will not place if the first dash was typed on the keyboard directly without the help of SmartKeys 2.1. Nor will the toggling take place if the Add Spaces option is enabled. The Smart Toggle button is dimmed in this case.

Quote Smartkey

Another difference between typewriting and typesetting involves quotation marks, and it is one of the most publicized differences between typing and typesetting. Many programs, for example, have a "smart quote" feature built into them. Basically, this smartkey converts the typewriter's straight quote or double quote key into true, generally, curly quotation marks. The single close quotation mark is also the apostrophe.

Smartkeys 2.1 maintains the single/double state of the original typewriter quote mark. It uses the previous character to determine whether to type an open quote (one that curls to the right, such as ") or a close quote (one that curls to the left, such as "). If the previous

character is an open double or open single quote, space, tab, return, enter, semicolon, colon, open parenthesis, open bracket, or open brace, Smartkeys 2.1 types an open quote. SmartKeys 2.1 uses these rules for both single and double quotes except when the previous action was a mouse click. In this case, the smartkey defaults to a close quote for the single and an open one for the double. The reason for this is that when users type into a new context, it's usually to add an apostrophe (') or begin a new paragraph (").

The quote smartkey also features a smart OVERRIDE capability engaged by checking on its corresponding button and holding down the command and option keys when typing the neutral quote mark.

The Smart toggle capability is also featured here. In this case, SmartKeys 2.1 toggles between the open and close single quotes and separately for the open and close double quotes. As with the dash smartkey, the quote character must be generated by SmartKeys 2.1 in order for the Smart Toggle feature to work.

A new option with SmartKeys 2.1 for the quote smartkey is Use German Quotes. Basically, the quote characters are different for German-style quotes:

open single   ‚

close single   '

open double   „

close double   "

Ligature Smartkey

Once in a while, you might come across an unusual letter, such as œ. This combination of the letters o and e is a called a ligature. The list of ligatures and their components that SmartKeys supports are as follows

Ligature Component

Ligature	Component
æ	ae
fl	fi
fi	fl
œ	oe
ß	``

Generally, the ligatures, æ, œ, and ß are uncommon, but the fl and fi ligatures are more common. The reason is because the i and the l tend to interfere with the f in combinations of f and i and f and l. As a result, typographers have come up with ligatures for them, so they can sit next to one another peacefully. There are also ligatures for ffi and ffl, but they

are not generally supported by Macintosh fonts. The ligature smartkey works just as the dash smartkey works — when the second component character of a ligature is typed, Smartkeys 2.1 backspaces out the first component and changes the second one into the ligature.

This smartkey supports a feature called Smart Delete. When engaged by checking on its corresponding button, Smartkeys 2.1 will retype the first component of a ligature when the ligature is backspaced out. Backspacing over the fi ligature will leave behind f. Thus, if you type f then i by mistake and wanted o, you would only have to backspace over the ligature and type the o. Smartkeys 2.1 will remember the last 255 characters after the first ligature typed initially.

Kill Doubled Capitals Smartkey

This smartkey is just a typing enhancement. It has nothing to do with either typewriting or typesetting. What often happens with fast typists is that after typing a capital letter, say at the beginning of a sentence, is that they continue to hold the shift key down as they type the next character. This tends to happen more often if the second letter is on the side of the keyboard opposite the one the shift key is being held down because a typist's one hand is coordinated to begin before the other is finished. Thus, the word THe is changed to The. To keep the typist conscious of this habit, a smart beep option is provided.

Shifted Punctuation SmartKey

This smartkey, like the kill doubled capitals smartkey, is also just a typing enhancement. In fact, it also helps with the shift key problem because it allows typists to continue to hold down the shift key while they type a comma or a period. Normally, doing so would type the mathematical symbols < and >, respectively. In order to be able to type these characters, turn on the Smart OVERRIDE feature and hold down the command and option keys when typing < and >. This smartkey works only when the US keyboard layout is current.

About Exclusions

The pane adjacent to the state settings contains controls for maintaining a list of applications, desk accessories, and fonts to be excluded from the current smartkey. Smartkeys 2.1 permits exclusions because some programs have no need to use smartkeys and some may even be impaired by having them. For example, communications programs often do not support the entire Macintosh set of characters and will not work properly if SmartKeys 2.1 attempted to type a real quotation mark instead of the generic typewriter quote mark. In addition, certain games, for example, use the spacebar repeatedly. Previously, SmartKeys 2 featured a Smart Fonts option wherein a smartkey was disabled when the current font was a system font, which included Geneva, Monaco, and Chicago. This feature has been expanded greatly in SmartKeys 2.1. To begin with, the Smart Fonts feature is now available for all the smartkeys not just the ligature, dash and quote smartkeys. It is also now

possible to add any font from a list of all those installed into the exclusion lists, making it possible to exclude up to 15 different fonts for each smartkey. This feature makes it possible, for example, to disable ligatures for fonts that don't have them.

Using Exclusions

Although this pane is common to each smartkey, an independent list is maintained for each one. To add an application to the list, click the Add Apps to List… button. The standard get file dialog appears where you can choose any application or the Finder to add to the list. The dialog returns each time you've added an application until the list is full (a maximum of 15 total items), or until you click Cancel. To add a desk accessory to the list, click the Add DA's to List… button. In System Software 7.0, the standard get file dialog appears instead showing only desk accessories instead of applications or the Finder. In System Software 6, a dialog appears containing list of all the currently installed desk accessories arranged in alphabetical order. Double-click on the name of a desk accessory to add it to the list or click on a name to select it and click the Add button. When the list is full or there are no more desk accessories to add, the Add button dims. To add a font to the list, click the Add fonts to List… button. A dialog appears containing list of all the currently installed fonts arranged in alphabetical order. Double-click on the name of a font to add it to the list or click on a font name to select it and click the Add button. When the list is full or there are no more fonts to add, the Add button dims.

Smart Accessibility

A new feature of the control panel is the ability to perform some actions taken on a particular smartkeys' options for all of them. To do this, hold down the shift key in the control panel. All of buttons for the lists change to indicate they will apply to all the smartkeys. That is, when adding applications to the exclusion list for the space smartkey, for example, and the shift key is held down, the applications added will be added to all the other smartkeys as well. The "On" buttons work this way too, though their names don't change.

Troubleshooting

Q. *SmartKeys isn't working.*

A. Because SmartKeys maintains separate exclusion lists for each smartkey, be sure to check the list for the smartkey that doesn't work to see if it had been excluded. Also, you maybe typing in an excluded font. Sometimes, SmartKeys is confused about which font is current. Reselect it from the application's font menu. Finally, each smartkey has its own "on" setting, be sure the one that isn't working is on.

Q. *The space smartkey doesn't work between words.*

A. You may have accidentally turned on the Smart Punctuation feature, which limits it to working only after punctuation.

Q. *I have the Smart Override feature for the < and > symbols on, but it doesn't seem to work.*

A. Engaging Smart Override always involves typing option and command in addition to the normal keys for the character, so don't forget the shift key for these characters is required as well.

Q. *I have added an application to the exclusion list, but SmartKeys still functions in the application.*

A. First, each smartkey has its own separate list. Make sure you've added to the right list. Second, you need to reboot for the list to be updated. Third, if you've renamed an application, you'll need to remove the old name from the exclusion list and add the new name. Finally, desk accessories added under System 7 with SmartKeys 2 need to be removed and re-added with SmartKeys 2.1.

Q. *SmartKeys 2 is behaving strangely in an application. Sometimes it works; sometimes not.*

A. This might be due to excluded fonts. With some applications, Smartkeys 2.1 guesses wrong about which font is current. This occurs with Microsoft Word 4.0, for example.

Credits

I would like to thank all the people who have a hand in developing SmartKeys 2.1. I would like to especially thank Michael Ross for his extensive testing. I would also like to thank Johnny Tolliver, Brian Diehm, Chuck Melikian and Ben Goren for their testing and comments, and all the other users who called me by telephone and wrote letters via snail mail for their comments.

Compatibility

SmartKeys 2.1 attempts to be as compatible as possible with the Macintosh environment. One problem is that SmartKeys 2.1 does not work in Microsoft Excel at all. A second problem concerns the dialog that comes up when the user attempts to add desk accessories or fonts to the exclusion list. To make the list, Smartkeys 2.1 makes a call to a Macintosh routine (AddResMenu) that may cause a system crash at a later time. Specifically, if the user brings up SmartKeys 2.1 with Multifinder running and the Finder as the current application and then accesses the list of desk accessories, it might be dangerous to directly switch back to the Finder and open an application. The cause of this problem is due to a bug in system 6 and not to SmartKeys 2.1. A third problem involves Aldus Pagemaker (both version 3 and 4). When a user types fast, Smartkeys 2.1 is unable to properly make conversions.

Some bugs and anomalies were reported with SmartKeys 2. First, a single quote typed after a double open quote was converted to a single close quote. It is now converted to single open quote. Second, desk accessories added to the exclusion list in System 7 weren't excluded.

SmartKeys 2.1 now correctly excludes desk accessories in System 7 (desk accessories added previously in System 7 with SmartKeys 2 need to be removed and re-added). Third, some users had trouble launching the control panel in System 7. The SmartKeys 2.1 control panel will now launch properly in System 7. Fourth, the "hyphen" key on the numeric keypad was treated as a hyphen by the dash smartkey and not ignored as it should have been. It is now ignored by the dash smartkey.

It is the author's intention to fix bugs and keep SmartKeys 2.1 updated. Please report bugs and comments to the author at

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(If there are any of you who did report bugs or comments via snail mail at the time the old versions were current and didn't get a response it was probably because the letter was not forwarded to my current address as it should have been.)

Distribution

SmartKeys 2.1 (and this documentation) is meant to be made available to the entire Macintosh community for free. However, SmartKeys 2.1 is not in the public domain and all copyright rights except free distribution are reserved. It should be available via the typical public domain distribution channels, including the national online services, such as America Online, CompuServe, Connect, and GEnie as well as the Usenet newsgroup comp.binaries.mac and Macintosh archive sites on the Internet, such as info-mac, rascal, and umich.