

Dana Keyboard Usage

Version 2.0

Date: 10/8/2002

Table of Contents

CHANGE HISTORY	1
INTRODUCTION.....	2
CURSOR MOVEMENT	2
TEXT SELECTION	2
MOVEMENT BETWEEN TEXT FIELDS	2
MENU MANIPULATION	3
MENU SHORTCUTS.....	3
PUSH ON-SCREEN BUTTONS	3
ON-SCREEN CONTROLS.....	4
APPLICATION SHORTCUTS	5
PC STYLE DELETE	5
OTHER KEYBOARD KEYS	5
INTERNATIONAL AND SPECIAL CHARACTERS	5
DIACRITICAL CHARACTERS	7
SPECIAL CHARACTERS	8
PUNCTUATION	8
ACCENTS	8
MATH.....	10
CURRENCY	10
GREEK.....	10

Change History

Date	Description
10/8/2002	Removed confidential label.
7/1/2002	Added info about Cmd-Tab and Esc key
5/30/2002	Documented key sequences that were omitted by mistake:
	Í I key followed by Function-‘ (‘ “ key)
	İ I key followed by Function-` (` ~ key)
	Ĳ I key followed by Function-6 (6 ^ key)
	Ÿ Y key followed by Function-; (; : key)
	İ I key followed by Function-; (; : key)
	Ĳ A key followed by Function-6 (6 ^ key)
4/22/2002	1.6 – changed names to Dana
3/29/2002	Removed all names.
3/25/2002	Added On-Screen Controls section.
1/29/2002	All sections are now implemented.
1/22/2002	Added some information about diacritical characters.
1/15/2002	Put in more information about generating the diacritical characters. Documented the exact keys for the Function- key sequence.
1/7/2002	Fixed the description of Function-\ to Function- - for the character ÷
1/4/2002	First version.

Introduction

This document will specify how the Dana keyboard has been integrated into the Palm OS. The basic concept is to allow the user to manipulate as much of the Palm OS without having to use a stylus. Many features have been added so that the user can move the cursor and select text without removing their hands from the keyboard. Some additions are reflected in the manipulation of the menus.

Some applications will not be able to take advantage of the keyboard interaction if they have implemented their own software instead of using the Palm OS functions.

Cursor Movement

In any text input area that uses the standard Palm text building blocks the user can move the cursor according to the following keystrokes:

```
Ctrl-Left Arrow = move cursor to the previous word
Ctrl-Right Arrow = move cursor to the next word

Cmd-Left Arrow = move cursor to the end of the line
Cmd-Right Arrow = move cursor to the beginning of the line
```

Text Selection

This section describes how the user can select text by using the keyboard keys.

```
Shift-Left Arrow = select one character to the left
Shift-Right Arrow = select one character to the right

Ctrl-Shift-Left Arrow = select previous word
Ctrl-Shift-Right Arrow = select next word

Shift-Up Arrow = select the previous line
Shift-Down Arrow = select the next line
```

To ease the transition of PC users to Dana the following key sequences have been implemented:

```
Ctrl-c = copy selected text into the clipboard
Ctrl-v = paste the text from the clipboard
Ctrl-x = cut selected text into the clipboard
Ctrl-a = select all text in the current text field
```

Movement Between Text Fields

Users can move between different text fields, such as the various text fields in the address entry area, by two different methods. The first method involves changing the default operation of the Tab key. Normally the Tab key inserts a tab character into a text field. In the AlphaSmart Keyboard application a user can specify in the General form that the Tab key should move the

cursor to the next field instead of inserting the tab character. When this preference is set, pressing the Shift key and then the Tab key will move the cursor to the previous text field.

The other text field movement is always available and can be activated using the following key sequences:

```
Function-Shift-Up Arrow = move to the next field
Function-Shift-Down Arrow = move to the previous field
```

Menu Manipulation

This section describes the functionality in the MenuWalker software that has been added to the Dana software suite. Once a menu has been “dropped” or viewable then the user can use the left and right arrow keys to move either to the next or previous menu. The space bar acts the same as the right arrow key. The backspace key works the same as the left arrow key.

The user can move up and down the menu items by using the up and down arrow keys. To select a menu item the user presses the Enter key while the menu item is selected.

This technique is disabled when the screen is rotated to 90 or 270 degree modes.

Menu Shortcuts

The user can execute any menu item by pressing the Cmd key in association with the menu shortcut letter. For example, most applications that allow text input have an Edit menu. The user can copy text by pressing the Cmd key and the c key.

The user can also bring up the command toolbar by pressing Cmd-Tab.

Push On-Screen Buttons

This section describes how a user can “push” an on-screen button from the keyboard. Buttons in the Palm OS that are used frequently have a dedicated key assigned to them. The following key sequences are for buttons that are commonly used in the Palm OS:

```
Function-new = push the New button
Function-cancel = push the Cancel button
Esc key = push the Cancel button
Function-done = push the Done button
Function-note = push the Note button
Function-ok = push the OK button
Function-show = push the Show button
Function-details = push the Details button
Function-delete = push the Delete button
```

If the button that needs to be pressed does not show up in this list then the user can press:

```
Ctrl-Cmd-Letter = where Letter specifies a unique letter in
the button.
```

On-Screen Controls

This section describes how a user can manipulate on-screen controls from the keyboard. The general concept is that the user will be able to “select” a control by pressing the Function-Tab key sequence. The controls will denote that they are selected in a variety of manners. The Shift-Function-Tab key combination will traverse the controls in the opposite order of Function-Tab. This is similar to functionality on a PC or Mac. The control movement is aborted by releasing the Function key at any time.

1. List Box

When the user selects the list box control, the currently selected list box item will flash. If there is no selection, flash the first item in the list. Once selected the user can use the Function-up/down arrow keys to change the selected item in the list.

2. Slider

When the user selects the slider control, the thumb of the slider will move back and forth. the currently selected list box item will flash. Once selected the user can use the Function-up/down arrow keys to move the thumb of the slider.

3. Repeating Button:

When the user selects the repeating button control, the button contents will be inverted. If Function-enter is continuously held, then repeat the button at normal repeat rates.

4. Pushbuttons:

When the user selects the pushbutton control, the button contents will be inverted. The user “presses” the button by pressing Function-enter.

5. Selectors:

When the user selects the selector control, the button contents will invert. Pressing Function-enter will “press” the selector.

6. Checkbox:

When the user selects the checkbox control, the checkbox will flip states and then flip back to its original state. It will then flip one more time, to rest at the opposite state of what it was. Pressing Function-enter will cause the checkbox to stay at its opposite state.

7. Popup Trigger:

When the user selects the popup control, the popup item in the list will become inverted. Pressing Function-enter will “pop” the list up. The user can move within the popup using Function-up/down arrow keys. Pressing Function-enter will select an item in the list and leave the user back at the popup in the highlighted or inverted mode.

8. Tip/Help Button (in dialog title bar):

When the user selects the tip button control, the tip button will become inverted. Pressing Function-enter will “press” the button.

Application Shortcuts

The user has the ability to “launch” the basic Palm Application using the follow keys:

```
Date key = launch Palm DateBook
Address key = launch Palm AddressBook
Memo key = launch Palm MemoPad
ToDo key = launch Palm ToDo
Function-Calc = launch Palm calculator
```

The user can also specify up to 8 different applications that are launched by pressing Function-F1 through F8. The applications to be launched can be configured using the AlphaSmart Keyboard application using the Apps Shortcut form.

PC Style Delete

Next to the Esc key (which is to the right of the space bar) is the del key which when the cursor is in a text field the character to the right of the cursor will be deleted. This follows the delete key functionality found on Windows in Palm text fields.

Other Keyboard Keys

There are other keys on the keyboard that provide quick access to a variety of operations:

```
Apps key = goto the launcher
Function-Apps key = generate the shortcut character
Send key = if in AlphaWord, dump the current file either
through the cable or using IrDA
Function-Sync = start the HotSync process
Function-Up Arrow = Page up (scroll up)
Function-Down Arrow = Page down (scroll down)
```

International and Special Characters

This section describes how using the keyboard generates international and special characters. The AlphaSmart 3000 uses a technique called dead key to generate the diacritical characters. Dana will default to generate diacritical characters using the same method as the Palm Portable Keyboard (PPK). There are plans to implement the dead key method, but it has not been implemented.

Another approach would be to create a KeyCaps or Character Map type of application so that the user can see all the characters possibilities by holding down the modifier keys. This could be incorporated in the AlphaSmart Keyboard application if there is time before ship.

Typing the letter (a, e, I, o, u, y, or n) and then typing one of the accents generate diacritical characters:

```
Function-` ( ` " key) = Acute accent (´)
```

Function-6 (6 ^ key) = Circumflex accent (^)
Function-; (; : key) = Dieresis accent (¨)
Function-` (` ~ key) = Grave accent (`)
Function-Shift-` (` ~ key) = Tilde accent (~)
Function-9 = Dot accent (·)

Diacritical Characters

Character	Standard Keystroke(s)	Notes
á	a key followed by Function-‘ (‘ “ key)	acute accent
é	e key followed by Function-‘ (‘ “ key)	acute accent
í	i key followed by Function-‘ (‘ “ key)	acute accent
ó	o key followed by Function-‘ (‘ “ key)	acute accent
ú	u key followed by Function-‘ (‘ “ key)	acute accent
Á	A key followed by Function-‘ (‘ “ key)	acute accent
É	E key followed by Function-‘ (‘ “ key)	acute accent
Í	I key followed by Function-‘ (‘ “ key)	acute accent
Ó	O key followed by Function-‘ (‘ “ key)	acute accent
Ú	U key followed by Function-‘ (‘ “ key)	acute accent
à	a key followed by Function-` (` ~ key)	grave accent
è	e key followed by Function-` (` ~ key)	grave accent
ì	i key followed by Function-` (` ~ key)	grave accent
ò	o key followed by Function-` (` ~ key)	grave accent
ù	u key followed by Function-` (` ~ key)	grave accent
À	A key followed by Function-` (` ~ key)	grave accent
È	E key followed by Function-` (` ~ key)	grave accent
Ì	I key followed by Function-` (` ~ key)	grave accent
Ò	O key followed by Function-` (` ~ key)	grave accent
Ù	U key followed by Function-` (` ~ key)	grave accent
â	a key followed by Function-6 (6 ^ key)	circumflex accent
ê	e key followed by Function-6 (6 ^ key)	circumflex accent
î	i key followed by Function-6 (6 ^ key)	circumflex accent
ô	o key followed by Function-6 (6 ^ key)	circumflex accent
û	u key followed by Function-6 (6 ^ key)	circumflex accent
Â	A key followed by Function-6 (6 ^ key)	circumflex accent
Ê	E key followed by Function-6 (6 ^ key)	circumflex accent
Î	I key followed by Function-6 (6 ^ key)	circumflex accent
Ô	O key followed by Function-6 (6 ^ key)	circumflex accent
Û	U key followed by Function-6 (6 ^ key)	circumflex accent
ä	a key followed by Function-; (; : key)	dieresis accent
ë	e key followed by Function-; (; : key)	dieresis accent
ï	i key followed by Function-; (; : key)	dieresis accent
ö	o key followed by Function-; (; : key)	dieresis accent
ü	u key followed by Function-; (; : key)	dieresis accent
ÿ	y key followed by Function-; (; : key)	dieresis accent
Ÿ	Y key followed by Function-; (; : key)	dieresis accent
Ä	A key followed by Function-; (; : key)	dieresis accent
Ë	E key followed by Function-; (; : key)	dieresis accent
Ï	I key followed by Function-; (; : key)	dieresis accent
Ö	O key followed by Function-; (; : key)	dieresis accent
Ü	U key followed by Function-; (; : key)	dieresis accent
ã	a key followed by Function-Shift-` (` ~ key)	tilde accent

ñ	n key followed by Function-Shift-` (` ~ key)	tilde accent
õ	o key followed by Function-Shift-` (` ~ key)	tilde accent
Ã	A key followed by Function-Shift-` (` ~ key)	tilde accent
Ñ	N key followed by Function-Shift-` (` ~ key)	tilde accent
Õ	O key followed by Function-Shift-` (` ~ key)	tilde accent
å	a key followed by Function-9	dot accent
Å	A key followed by Function-9	dot accent

Special Characters

Character	Standard Keystroke(s)	Notes
ø	Function-o	
Ø	Function-Shift-o	
°	Function-d	
™	Function-t	
®	Function-r	
©	Function-g	
ç	Function-c	
Ç	Function-Shift-c	
∞ (infinity)		NOT SUPPORTED IN PALM OS
§	Function-s	
¶	Function-\	
æ	Function-a	
Æ	Function-Shift-a	
•	Function-w	NOT IN ALPHASMART 3000

Punctuation

Character	Standard Keystroke(s)	Notes
¿	Function-/	
¡	Function-1	
»	Function-.	Function key and period key
«	Function-,	Function key and comma key
‘	Function-[NOT IN ALPHASMART 3000
’	Function-]	NOT IN ALPHASMART 3000
“	Function-Shift-[NOT IN ALPHASMART 3000
”	Function-Shift-]	NOT IN ALPHASMART 3000

Accents

Character	Standard Keystroke(s)	Notes
´ (acute accent)		NOT SUPPORTED IN PALM OS
` (grave accent)	(` ~ key)	
^ (circumflex)	Shift-6	
¨ (umlaut)		NOT SUPPORTED IN PALM OS

~ (tilde)	Shift-` (` ~ key)	
˙ (superscript dot)		NOT SUPPORTED IN PALM OS

Math

Character	Standard Keystroke(s)	Notes
$\frac{1}{2}$	Function-2	
$\frac{1}{3}$		NOT SUPPORTED IN PALM OS
$\frac{1}{4}$	Function-4	
$\frac{3}{4}$	Function-3	
\div	Function- - (- _ key)	
\pm	Function-=	
f	Function-f	

Currency

Character	Standard Keystroke(s)	Notes
€	Function-e	
£	Function-p	
¢	Function-5	
¤	Function-j	
¥	Function-y	
\$	Shift-4	

Greek

Character	Standard Keystroke(s)	Notes
ß (beta or German Sharp S)	Function-b	
Σ (sigma)		NOT SUPPORTED IN PALM OS
π (pi)		NOT SUPPORTED IN PALM OS
μ (mu)	Function-u	
Ω (omega)		NOT SUPPORTED IN PALM OS