5-way Developers Guide

5-way Navigation - Assumptions and Ruleset

determined on a case-by-case basis.

(see Rule Set for specific behavior).

return the user to the Launcher.

Data retrieval is primary target, data input is not supported.

Nothing will be done that jeopardizes the stylus experience or functionality.

Functional priority will be given to directional arrows that already exist in the

Scenarios for 5-Way navigation will conform as strictly as possible to current

There are two modes for each directional button; single press and press/hold

Where the user has not initiated insertion of a Selection Highlight in list views.

OS 4 stylus navigation. Exceptions made for one-hand navigation are

Nav Up/Down scrolling will follow current OS 4 model (page-by-page).

Right/Left arrows will be added to Record view of Various Applications.

Long Press of select button is not available for applications, it must always

Assumptions

applications.

palm

Human Interface Design

01.27.02 DATE 1 of 3

DESIGN ENGINEERING

numa

Ruleset

- 1. **Select/Hold** always takes the user to the Launcher.
- Look Up and Go To will no longer be default-selected on the screens in which they appear.
- Default highlight insertion point: in lists, the highlight will be inserted at the top of the list. In grids, the highlight will be inserted at the first item at relative 0.0.
- Single Press Right/Left Behavior in Lists: Select will insert a highlight at the top of the list view. When the highlight is in the list, leaving the application and returning will remove the highlight and return default behavior for paging.
 - Single Press Right/Left Behavior elsewhere: where right and left arrows are already assigned to other navigation functionality (e.g. record to record, or increment to increment cycling as in week or month view of Date Book), a right/left nav will cycle to the next/previous record.
- 6. Single Press Up/Down scroll behavior in Lists:
 (a) when there is no Selection Highlight in the list, behavior mimics current OS 4 scroll behavior (page-by-page)
 (b) when there is a Selection Highlight in the list, the highlight will move item by item to the last (NavDown) or to the first (NavUp) item on the screen, then allow the data to scroll through the highlight remaining on-screen, either at the top or bottom. See Scenario 2.1.3 for illustration of this behavior.
- Press/Hold Up/Down with no highlight in list: when no highlight is inserted in a list the fast mode of Press/Hold Up/Down will be pageby-page emulating current OS 4.0 page scroll behavior.
- 8. Press/Hold Up/Down with highlight in list: when there is a highlight in a list, the press/hold scroll behavior will be equivalent to number 6 above, allowing data to move through the display view as fast as the processor will allow. The highlight will not scroll off screen with data. When user releases press/hold, scrolling will stop. The Highlight will remain at either the first or last item in the list, depending on the direction of travel, allowing the user to resume item-by-item navigation.
- Default Dialog Behavior: When possible, when the user is in a dialog or other UI location where they are presented with a single 'Done' or'Cancel' option (or equivalent), Select will activate the 'Done' option and NavLeft will activate the 'Cancel' option, where possible.
- Press/Hold Right/Left: will simply repeat the function assigned to the right/left nav buttons in any screen, allowing data to move through the display view as fast as the processor will allow.

Special Cases

 Default Button Mapping in Destructive Dialogs: Wherever possible, in operations where data deletion may occur, the default button mapping behavior will be such that Select is on 'Cancel' forcing the user to use the stylus for datadeletion. This is an exception to Rule 9 regarding Default Dialog Behavior.

Key:

Press/Hold Right

Press/Hold Select

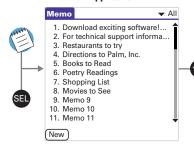
Single Press Up	
Single Press Down	
Press/Hold Up	
Press/Hold Down	
Single Press Right	0
Single Press Left	0





01.27.02

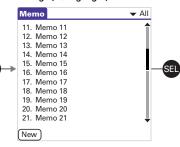
1. User Presses Select to Launch Application



Pressing Select Launches Application

The application indicated by the selection highlight in the Launcher is launched when the user activates the Select control.

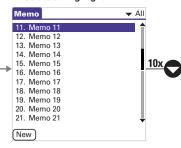
2. User Navs Down Page by Page (no Highlight)



Page Behavior

To maintain backwards compatibility with the current device functionality, the NavUp/Down control behaves like the current rocker switch when no highlight is inserted (see next screen #5)

3. User Navs Right To Insert Selection Highlight



Inserting a selection

NavRight inserts the selection highlight at the first visible item in the list.

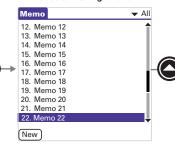
4. User Presses Nav Down to Move Selection Highlight



Single Press Scrolling with a Selection

Single press NavUp/Down with a selection moves the selection highlight to the item above/below the current selection.

5. Selection remains at bottom with data moving thru it

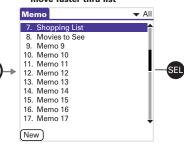


Single Press Scrolling with a Selection cont'd

When the selection highlight is at the top or the bottom position (see previous screen), the list begins to move thru the selection highlight.

6. User Press/Holds Nav Up to move faster thru list

© 2001 Palm Inc. Confidential & Pr



Press/Hold NavUp Scrolls Fast Item by Item

With a Selection Highlight inserted, Press/Hold scrolling becomes item by item, as fast as the processor can go. When the user releases, the Selection Highlight is shown at the top or bottom of page (depending on scroll direction).

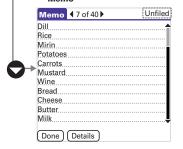
7. User Presses Select to Open Selected Record



Opening a Memo

Pushing the Select control in the Memo list when a selection highlight is visible opens the selected memo.

8. User Navs Down to Scroll Memo



Scrolling a Memo

NavUp/Down within a record page scrolls the record contents (same as current behavior) if the record contents are multi-page.

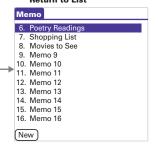
9. User Navs Left to Go to Previous Memo



Moving between Records in Memo View

NavLeft/Right within a record changes the view to the previous/next record in the list. If the user is viewing the first record, NavLeft does nothing, if viewing the last record, NavRight does nothing.

10. User Presses Select to Return to List



Exiting Record View

Pushing the select control in record view is equivalent to tapping the 'Done' button with the stylus. The user is returned to list view with the last record viewed at the top of the list, (or if the last record viewed was of the last 10 records, the bottom-10 record is at the top) Selection Highlight at last record viewed.

List View with



no Highlight

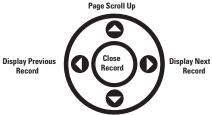
List View with Highlight



Highlight Next Record

Note: User is returned from Record View With Highlight on Last Viewed Record If User leaves the App, highlight is removed. If view has not changed since highlight was it is re-inserted at original place.

Record View



Page Scroll Down

7. Press and Hold right or left to

01.27.02

1. User Opens Launcher with **Press/Hold Select**

Default Launcher Behavior

behaves (page-by-page).

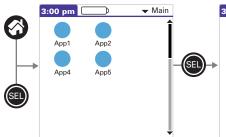
3:00 pm

App16

App19

App22

confirmed.



User enters Launcher by Press/Hold of select

Selection Highlight is visible. NavUp/Down in

this case would scroll grid as current device

button or tapping silkscreen icon. No

8. User Navs Down to Page

App14

App17

App20

App23

Navigating the Launcher Grid (cont.)

When the Selection Highlight crosses the

will scroll item by item. Behavior to be

boundary at top/bottom of screen, if there is

grid content available above/below, the grid

App15

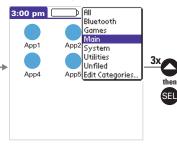
App18

App21

App24

Launcher Content

2. User Presses/Holds Select to display Category Menu



With no Selection Highlight inserted, pressing Select/Hold again causes the Launcher category drop down menu to appear with all available categories in the Category Menu. including any available expansion devices.

Displaying Category Menu

Navigating the Category Menu Nav Up/Down with no Selection Highlight will scroll (page-by-page); Nav Right and Nav Left with no Selection Highlight does nothing.

3. User Presses Select to

3:00 pm

App1

App4

App7

Memo Pad

choose a new category

App2

App5

App8

App11

▼ All

App3

App6

App9

App12

10. User Navs Down to Bottom



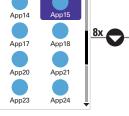
3:00 pm

App13

App16

App19

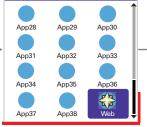
App22



Navigating the Launcher Grid (cont.)

When the user Nav Right to the far right side of the Launcher grid, successive gestures in the same direction do nothing. The bottom and bottom far right edge of the launcher grid is a hard boundary; there is no looping or wrapping behavior at the top and bottom of the Launcher grid.

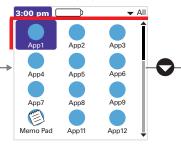
9. User Navs Right to Right **Edge of Launcher Grid**



Navigating the Launcher Grid (cont.)

The user pages down to the bottom of the grid. Red area shows hard stops at bottom and right side of Launcher. A error "been" sounds if user tries to Nav in these directions.

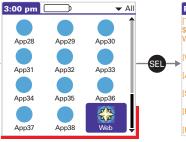
4. User Presses Select to Insert Selection Highlight



Inserting a Selection Highlight

Select with no Selection Highlight inserts (animates) one. The user is now navigating the grid. Nav Left from top of leftmost column does nothing. Press /Hold right or left scrolls horizontally and wraps. Red area shows hard stops at top and left side of Launcher.

11. User Navs Down at Bottom of Launcher Grid



Navigating the Launcher Grid (cont.)

Further Nav Down gestures at the bottom of the Launcher grid do nothing. There is no looping or wrapping at the top and bottom of the Launcher grid. Red area shows hard stops at bottom and right side of Launcher, A error "beep" sounds if user tries to Nav in these directions.

5. User Navs Down to Move the Selection Highlight



Navigating the Launcher Grid (cont.)

Nav Up/Down moves the Selection Highlight one grid unit in that direction (except where Selection Highlight is at the top/bottom of grid. Red area shows hard stops at top of Launcher. Bottom hard stops shown in screen 10

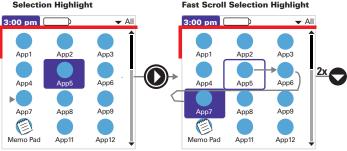
12. User Launches Application



Application Launching

Pressing Select with the Selection Highlight in the Launcher grid, the highlighted application is launched.

6. User Navs Right to Move the Selection Highlight



Navigating the Launcher Grid (cont.)

Nav Right/Left moves the Selection Highlight one grid unit in that direction (except where Selection Highlight is at the top/bottom of grid. Red area shows hard stops at top of Launcher. Bottom hard stops shown in screen 10

Rapidly Navigating the Launcher Grid

Press and Hold on Nav Rightor Nav Left rapidly moves the highlight in the displayed behavior, scrollingthrough horizontally.

Launcher 5-way menu defaults

lavUp/Down	NavLeft/Right	Select
Scroll list	-	Done
0 0	Navigate to next menu - -	Beam OK Cancel
Scroll list	-	Done
Scroll list	Select tabs	Done
	-	OK
	-	OK
	croll list croll list with highlight croll list	croll list - croll list with highlight Navigate to next menu - croll list - croll list - croll list Select tabs -

Launcher with no Highlight

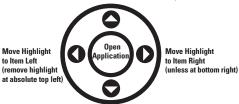


Page Down



Launcher Grid with Highlight





Move Highlight to Item Below (unless at bottom)

Rapid Move Highlight to Item Left or wrap to next line up.



Rapid Move Highlight to Item Right or wrap to next line down.