## Relative Evaluation Report on S1, iPhone

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SW Verification Group

## I. Overall Comments

II. New UX Usability Issues

III. Usability Issues that Overlap
with Lismore's

## I. Overall Comments

- A total of 126 issues were found, and 27 new issues were found in S1 (21.4\%) and there were 99 issues that overlap with Lismore
- Basic Functions take up the largest percentage of the issues with 21.4\%, followed by Visual Interaction Effect (17.5\%), Browsing and Messaging (16.7\% respectively)

| Items |  | i-Phone |
| :---: | :--- | :--- |
| Basic <br> Funct ion <br> (27 items) | Effective and efficient use of space <br> Ex) Shows keypad/font and Calendar schedule in a large view | Has poor use of space for a large LCD <br> Ex) Keypad and font are small, and schedule list field is narrow |
| Browsing |  |  |
| (21 items) | Edit and delete functions are appropriately placed <br> Ex) YouTube search history deletion and addition of countries in <br> weather application <br> Cut \& Paste of contents function is supported | There are no edit/delete functions, and there are unnecessary <br> functions <br> Ex) YouTube search history deletion, addition of countries in <br> weather application, and Cut \& Paste of contents functions are not <br> supported |
| Connect ivity |  |  |
| (19 items) | Easily synchronized with other devices <br> Ex) Can switch to BT while playing music <br> Wi-Fi set up can be configured in one screen | Synchronizing with other devices is complicated and difficult <br> Ex) Can't switch to BT while playing music; Wi-Fi ON/OFF and |
| Setting screens are separately implemented |  |  |

## II. New UX Usability Issues

## 1. Basic Function _ Memo

In Memo and Calculator, only -90 degree rotation is supported in landscape mode

- i-Phone: Landscape mode is supported both to the right and to the left
- S1: Landscape mode is not supported when rotated to the right in Memo and Calculator.

- 5 / 132 -


## 2. Basic Function _ Calendar

## Improve user convenience through a better utilization of the Calendar screen

- i-Phone: When a date is selected in the monthly view, the daily schedule is displayed.
- S1: Visibility is low because the display area for daily schedule is small

- $6 / 132-$


## 3. Basic Function _ Call

## Has poor utilization of space in the Dial screen.

- i-Phone: Number keypad touch area and number fonts are large so they are easy to press and see
- S1: Number font and the keypad size are small compared to the LCD size.

| i-Ph |  |  |
| :---: | :---: | :---: |
|  |  |  |
| 010-8010-8303 |  |  |
| 1 | 2 | 3 |
| 4 | 5 | 6 |
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- Dial Screen
. Keypad is divided by thin lines to secure maximum space, and numbers are displayed as big as they can be to match the space.
- Dial Screen . Has poor utilization of space because the fonts for menu options located at the top, such as Dialer, Call log and Favorites, and the number sizes are very small compared to the space

Directions for Improvement

Need to enlarge the text in the menu options at the top and the number fonts on Dial screen to match the space

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## 4. Basic Function _ Call

## Convenience when ending Calls

- i-Phone : Call can be ended by pressing the Hold button once in any screen during a call.
- S1: End key has to be pressed after unlocking Hold to end a call.



## 5. Basic Function _ Home Menu

Causes user confusion because duplicate menu icons can be placed on the home screen

- i-Phone: Duplicate menu icons can't be placed on the home screen.
- S1: Causes confusion because duplicate menu icons can be placed in the home screen


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## 6. Browsing _ Web Browser

"Add to Bookmark" input screen and the keypad screen overlap.

- i-Phone: All implemented in one screen.
- S1: The input screen and the keypad overlap.



## 7. Browsing _ Web Browser

While loading Youtube videos, the entire screen feels empty because the "loading" sign is at the top right corner

- i-Phone: "Loading" sign appears at the center of the screen while video is loading
- S1: "Loading" sign appears at the top right corner of the screen while YouTube video is loading

- 11 / 132 -


## 8. Browsing _ Web Browser

There is no menu to delete recent Youtube search history

- i-Phone: Only one recent search list gets saved
- S1: Many recent Youtube search lists get saved, but they cannot be deleted.



## 9. Browsing _ Web Browser

There are unnecessary menu icons when connecting to Youtube

- i-Phone: When you check after connecting to Youtube, there are no Camera and Voice Memo icons
- S1: Menu icons that do not need to be used exist on the initial connection page and the search screen



## 10. Browsing _ Web Browser

## Other countries cannot be added in the Weather app

- i-Phone: Users can easily add other countries using the option key on the screen
- $\mathbf{S 1}$ : There is no menu for selecting additional countries for checking the weather

- 14 / 132 -


## 11. Browsing _ Web Browser

$\square$ Difficult to figure out the meaning of the word NEXT on the keypad.

- i-Phone: The language changes when the icon is pressed..
- $\mathbf{S 1}$ : It is hard to convey the meaning of NEXT.

- 15 / 132 -


## 12. Browsing _ Web Browser

Number of Browsers is not displayed.

- i-Phone: Displays the number of browsers when multiple browsers are open.
- S1: Can't figure out how many browsers are open..

- 16 / 132 -


## 13. Browsing _ Web Browser

There is no function of Copying/Cutting the desired word on a page by long pressing

- i-Phone: It gets dragged by a long Tap and can be immediately copied
- $\mathbf{S 1}$ : Does not support the function



## 14. Browsing _ Application

Related application list can't be previewed when the initial character is entered in a market search
i-Phone: During an App search, related app list shows up even when just the initial character is typed in

- S1: During an App search in Market, no list appears even when the initial character is typed in



## 15. Connectivity _ Bluetooth

BT headset MODE conversion feature is not implemented.

- iPhone: BT device/terminal status is easily recognizable.
- S1: BT devide/terminal conversion option is not implemented during music play

- 19 / 132 -


## 16. Connectivity _ Wi-Fi

## Wi-Fi connection does not get established in one screen

- i-Phone: Displays the Network list in one screen when the Wi-Fi is turned on.
- S1: Depth gets longer as the Wi-Fi On/Off function and the Setting screen are composed separately

- $20 / 132$ -


## 17. Messaging SMS

When same SMS is sent to multiple recipients, hard to recognize the total number of recipients because of small display

- i-Phone: When there are many recipients, the total number of recipients is displayed as "... \& 5 others."
- S1: The total number of recipients is displayed at the top right corner in a very small size, such as



## 18. Messaging _ SMS

Takes 5 steps to enter the New Contacts window when saving a number from SMS inbox

- i-Phone: Takes a 3-step move to enter the New Contacts screen.
- S1: Takes a 5-step move to enter the New Contacts screen.



## 19. Messaging _ SMS

When entering Messaging menu and opening a previously received message, Qwerty keyboard shows up automatically

- i-Phone: When opening a previously received message, Show Content screen appears
- S1: It is hard to read existing messages because the Qwerty keyboard appears.


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## 20. Messaging _ E-mail

$\square$ As the e-mail receipt icon is black and overlaps with the background, it is hard to see

- i-Phone: Visibly indicated through a number display
- S1: Hard to see as it overlaps with the color of the indicator

- $24 / 132$ -


## 21. Messaging _ E-mail

It is inconvenient to switch over to the next e-mail while reading an e-mail

- i-Phone: With the Previous and Next buttons, it is easy to navigate between e-mail messages
- S1: There is a Previous button, but no Next button



## 22. Multimedia _ Music Player

Because the screen transition speed is fast when Media play key is pressed, it doesn't feel luxurious

- i-Phone: As the transition speed of the white-smearing effect is slow when the key is Tapped, it feels luxurious
- S1: Only the color changes to blue



## 23. Multimedia _MMS

## There is no Edit function when attaching a large video file

- i-Phone: When attaching a large video file, possible to select desired parts for attachment
- S1: When the file is large, can attach only the maximum capacity calculated from the beginning



## 24. Multimedia_ Camera

## The visual effect for the preview focus point is weak

- i-Phone: There is a visual effect of the focus point converging from the outside to the inside.
- S1: Only the focus point moves to the touched location.



## 25. Visual Interaction Effect _ Message

Pop-up blocks the view when the keypad is pressed while composing messages

- i-Phone: Pop-up window is a size of suitable visibility, appropriate for the keypad size.
- $\mathbf{S 1}$ : The size of the pop-up is too large and obstructs the upper part of the keypad


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## 26. Visual Interaction Effect _ Message

$\square$ When composing a message in landscape mode, impossible to know the current menu

- i-Phone: Even if composing in landscape mode, the status bar at the top shows what the current menu is
- S1: When composing in landscape mode, the input window changes to full screen, making the current menu is unknown


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## 27. Visual Interaction Effect _Dialer Input

When a long list of numbers is entered into the Dialer, difficult to recognize in one glance
i-Phone: If the number gets long in the dialer, the font size shrinks to fit the number in one line
S1: When entered beyond the input space, the exceeded part of the number is either cut off or does not appear


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## III. Usability Issues Overlapping with Lismore's

## 28. Basic Function <br> Memo

$\square$ Ul consistency suffers because the Displays for the Memo icon and the application window are different

- i-Phone: The memo input window that looks identical to the Memo icon on the Home Screen gets Displayed
- S1: The input window with a completely different makeup is Displayed when running the Memo Application

- $33 / 132$ -


## 29. Basic Function Memo

It is inconvenient because the memo function only provides date/day of the week information without the information on what time it was created

- i-Phone: It is more convenient to use because time information for when the memo was created gets displayed on the top right of the memo writing window
- S1: Users cannot find out when the memo was created because it only provides the date of creation for the memo


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## 30. Basic Function _ Memo

Decreased usability and convenience of use due to the lack of information on the number of saved memos and a Search function

- iPhone: By loading information on the total number of memos and a Search function, convenience of use is improved
- S1: It is inconvenient because the user has to individually Count and search memos

- 35 / 132 -


## 31. Basic Function _ Memo

When a memo contains URL, phone number or Email, no Link is provided.

- i-Phone: A link for the URL, phone number or email address in the memo is provided through Tap or long press.
- S1: No link function is provided at all.

- 36 / 132 -


## 32. Basic Function _ Contact

It is inconvenient because a UI that allows immediate Voice call when selecting a Contact is not implemented

- i-Phone: It is implemented so that it can go directly from Contact information to Voice Call
- S1: Can only call if the user selects Voice Call in the pop-up that appears after selecting the number

- 37 / 132 -


## 33. Basic Function _ Contact

The accessibility of the alphabetical search function in the Contact List screen is lacking

- i-Phone: The alphabetical search BAR is displayed on the right side of the screen so the user can use it intuitively
- S1: The alphabetical search BAR is only displayed when the right side of the screen is touched, so accessibility for the function is low

- $38 / 132$ -


## 34. Basic Function _ Contacts

The number of saved Contacts is not displayed on the Contact list screen

- i-Phone: Can immediately find out the number of saved contacts on the Contact list screen
- S1: There is no way to check the number of contacts saved on the phone.

- 39 / 132 -


## 35. Basic Function _ Contacts

$\square$ There is no indicator for detailed view in the menu to switch phonebook type

- i-Phone: Provides an indicator ( $>$ ) for the sub-menu
- S1: Not as intuitive because there is no indication of the menu's existence

- $40 / 132$ -


## 36. Basic Function _ Alarm

The alarm screen layout is not user-friendly compared to the i -phone and the graphics are dull- i-Phone: The feature for setting the time consists of a Dial so it is convenient for the user to use
- S1: The time setting UI is inconvenient, and the UI for manually inputting the time lacks intuitiveness



## 37. Basic Function _ Calculator

$\square$ It is difficult to figure out the number of digits because there are no markers for every increment of one thousandth

- i-Phone: Every increment of a thousand (3 digits) units is marked, making it easy to distinguish units when inputting numbers
- S1: It is inconvenient because there is no marker and the user has to count each individual digit



## 38. Basic Function _ Calendar

## The date on the Calendar Icon doesn't change, causing confusion for the users

- i-Phone: Day of the week/date on the Calendar icon is updated daily based on the current date
- S1: The date is fixed on December 7 because it is a Graphic icon

- 43 / 132 -


## 39. Basic Function _ Event

## Insufficient Time information in the Event Start/End Screen

- i-Phone : All necessary information such as date/day/time, etc. on the Event Start/End screen
- Display


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## 40. Basic Function _ Call

There are concerns of user confusion and malfunction because the indicator showing your in-call status is unclear.

- i-Phone: Offers a function that allows you to immediately return to call after using additional features during the call with instructions
- S1: User cannot intuitively understand how to return to call mode


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## 41. Basic Function _ Call

When ending Call during a call, there is a possibility of mistake because the end button is too small.
i-Phone: Supports a big, wide button at the bottom part of the screen.

- S1: It's one of the 6 Call option buttons and the size is too small.

- 46 / 132 -


## 42. Basic Function _ Call

There are too many unnecessary Pop up windows during a call.

- i-Phone: Can recognize whether or not a button is selected by the change in color on the screen.
- S1: A pop-up window is repeatedly displayed even though the selection of a button can be recognized by the change in color.


[^0]
## 43. Basic Function _ Call

## It's inconvenient to make a call from the Call log because you have to access $2^{\text {nd }}$ Depth

- i-Phone: It is convenient because you can make a call by touching the number once from the Call log screen
- S1: You can only make a call after selecting the number on the Call log screen and then pressing the call key again on the number screen



## 44. Basic Function _ Call

The makeup of the volume adjustment screen is too dull

- i-Phone: Applying the Progress bar and speaker animation at the center of the screen creates good visibility
- S1: Lacks balance because there is only the Progress bar compared to the entire screen

- 49 / 132 -


## 45. Basic Function _ Battery

The remaining battery indication during use is insufficient

- i-Phone: Clear indication with Battery bar and numerical value display
- S1: Only the Battery bar is displayed and does not provide precise information on the remaining battery life



## 46. Basic Function _ Home Menu

$\square$ Ledgibility of the menu page Index icon is low.

- i-Phone: It is easy to recognize the current page because the current page icon color is different
- S1: Ledgibility of the current page number is low because page index is in identical color

- $51 / 132-$


## 47. Basic Function _ Calendar

Visibility is low because the area displaying schedule in the monthly calendar screen is too small

- i-Phone: It is easy to check daily schedule because the area displaying daily schedule is large
- S1: Visibility is low because the area displaying daily schedule is small

- 52 / 132 -


## 48 Basic Function _ Calendar

$\square$ Lacks simplicity because the display of the number of weeks in the Calendar is not Flexible

- i-Phone: Calendar display is Flexible by showing 5 or 6 weeks depending on the month
- S1: Has poor utility of space because all months are displayed in 6-week format



## 49. Basic Function _ World Clock

The World Clock screen is not very considerate toward users

- i-Phone: Displays the second hand on the clock and information about Yesterday and Today
- S1: It is difficult to recognize because there is no second hand on the clock and date is displayed


[^1]
## 50. Browsing _ Application

Doesn't show the application download status on the home screen

- i-Phone: Switches to the home screen where the application would be installed to show the application installation status
- S1: Download pop-up window appears inside Samsung apps.

- 55 / 132 -


## 51. Browsing _ Web Browser

$\square \quad$ Can't create folders inside Bookmark

- i-Phone: Offers a function that allows you to create sub-folders down to 5 Depths
- 

S1: Folders cannot be created inside Bookmark


## 52. Browsing _ Web Browser

There is no menu for going back to the previous screen when playing a Youtube video

- i-Phone: There is an "end video" key at the top left corner at all times when playing video files
- S1: There is no "end video" key on the touch screen in the screen playing Youtube video



## 53. Browsing _ Web Browser

- i-Phone: When another point is double tapped after zooming in, moves to the different portion and zooms in
- $\mathbf{S 1}$ : After the screen has been expanded and another point is Double tapped, the screen reduces to the original size.

- 58 / $132-$


## 54. Browsing _ Web Browser

$\square$ It is inconvenient because you cannot move to the top of the page at once

- i-Phone: It moves to the very top of the page at once if you touch the caption bar at the top of the screen
- S1: Needs to be dragged to move to the very top



## 55. Browsing _ Web Browser

$\square$ In landscape mode, the menu bar at the bottom takes up more space compared to the iPhone

- i-Phone: Takes up about 10\%. (Total: 50mm, Menu Bar at the Bottom: 5mm).
- S1: Takes up approximately 18\%. (Total: 52mm, Menu Bar at the Bottom: 9 mm ).

- $60 / 132$ -


## 56. Browsing _ Web Browser

$\square$ It is difficult to figure out the meaning of the star-shaped icon (Add to Bookmarks).

- i-Phone: You can easily tell by the "+" symbol
- S1: It's difficult to convey the meaning of the star-shaped icon on the top left

- $61 / 132-$


## 57. Browsing _ Web Browser

Add to Bookmarks function from blank pages is unnecessary.

- i-Phone: You cannot add a Bookmark.

S1: You can add a Bookmark.


## 58. Browsing _ Web Browser

It is difficult to figure out the meaning of the OK Key in the keypad.

- i-Phone: The language gets changed if the icon is pressed..

S1: It is difficult to convey the meaning of the OK Key icon.


## 59. Browsing _ Web Browser

Conficiential

## Caps Lock for English is not indicated.

- i-Phone: It gets capitalized if text is typed in while pressing down $\uparrow$ on the keypad (same input method as a computer)
- S1: It gets changed to capital letters mode if the $\uparrow$ key is long pressed.

- $64 / 132-$


## 60. Browsing _ Web Browser

- Functional options for moving up and down the screen are limited
- i-Phone: You can move up and down the screen in 2 methods of "Drag \& Double Tap"
- S1: You can only move up and down the screen by "Drag"



## 61. Browsing _ Web Browser

It is difficult to figure out the contents when transitioning to web pages because Thumbnails are too small in size

- i-Phone: It is easy to figure out the contents because the number of open pages and the sizes of each page are large
- S1: It is difficult to figure out the contents at one glance because the size of the pages is small

- 66 / 132 -


## 62. Connectivity _ PC Program

$\square$ Does not support the KIES App download for installing large-capacity Applications (10MB or larger)

- i-Phone: You can synchronize with your mobile device by downloading the Application from iTunes PC Tool
- S1: Kies PC Tool does not support the function to download Applications


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## 63. Connectivity _ PC Program

Does not show device usage information in detail by content.

- i-Phone: Device usage information by type is always displayed at the bottom right corner of the screen

S1: Only the amount used is displayed out of the total capacity

*Categorized by Audio, Video, Photos, Free Space, etc.
*Once the device is connected, it's always displayed

*You can only check if you run the device explorer, and it is only displayed in amount used/total capacity

Directions for Improvement

The device's capacity information should be categorized by content and shown in real time

- $68 / 132-$


## 64. Connectivity _ PC Program

$\square$ Screen looks complicated because each Main function exists in a separate window

- i-Phone: It simply consists of one main window that is divided into left/right frames
- S1: Any time a function gets run in widget form, it gets displayed with a new window

- 69 / 132 -


## 65. Connectivity _ PC Program

$\square$ There is no function to synchronize contacts and daily schedule information in frequently used accounts

- i-Phone: You can immediately synchronize the information saved on the corresponding server by selecting the account
- S1: In order to synchronize, you have to open the file saved on a local PC or add/edit them manually

- $70 / 132$ -


## 66. Connectivity _ PC Program

$\square$ You have to synchronize with the device by individually running applications for each function

- i-Phone: If synchronization preferences are configured for each category, the synchronization automatically takes place when device is connected
- S1: You have to synchronize after loading files by running applications for each function


Need a function that allows synchronization preferences to be configured in a single window
Directions for Improvement for each category and synchronization to happen at once when device is connected

- $71 / 132$ -


## 67. Connectivity _ PC Program

$\square$ There is no function to save or edit downloaded Apps on the device.

- i-Phone: It allows Apps to be Backed-up on iTunes, or to be edited on the device's home screen
- S1: It only allows contents to be purchased

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## 68. Connectivity _ PC Program

Shows consideration for users by limiting App D/L capacity so that it doesn't take a long time

- i-Phone : For Apps that take too long to download, it sets restrictions to use Wi-Fi or iTunes instead
- S1: It is possible download applications regardless of the size


[^2]
## 69. Connectivity _ PC Program

Lacks a function that allows the user to remotely control contents on a PC from the device.

- i-Phone: Music files saved in iTunes can be remotely controlled with the device using Remote
- S1: Does not support a similar function

| i-Phone | Aries |  |
| :---: | :---: | :---: |
| Using the Remote Application provided for free at Apple's home page, the user can remotely control music files saved in iTunes (add to the playlist, next song, shuffle, etc.) with the device as desired (* Using WiFi) | - | Not Supported |
| Directions for Need to consider adding a remote control fun Improvement the device |  | vity between a P |

## 70. Connectivity _ PC Program

When creating a music playlist, it simply supports add/delete functions

- i-Phone : Automatically generates playlists by using iTunes' Genius \& Genius Mix.
- S1: Does not support a similar function



## 71. Connectivity _ PC Program

## Does not support the minimized mode for program functions.

- i-Phone: It offers a function to minimize (Mini-Player) the main screen using a short-cut key and menu.
- S1: Does not support Mini-Player mode and only supports full view mode


[^3]
## 72. Connectivity _ PC Program

It is difficult to use because the PC Program Quick Guide is in Text and images

- i-Phone: It provides a simple user manual in video format
- S1: It provides the basic usage instructions in text and images only

- $77 / 132-$


## 73. Connectivity _ PC Program

$\square$ It is difficult to use because the Help text for the PC program is not organized into detailed categories

- i-Phone : Help text is organized into specific categories such as information and keyboard short-cuts and offers help text for each category
- S1: Basic user instructions are provided in Text and images only

- $78 / 132-$


## 74. Connectivity _ PC Program

$\square$ It is inconvenient because Samsung Kies program does not support a print function - i-Phone: It provides a function for printing CD case covers, song lists, album lists, etc.

- S1: The print function is not supported.

- 79 / 132 -


## 75. Connectivity _ PC Program

## Does not support the streaming radio function

- i-Phone: You can connect to various streaming radio stations on iTunes
- S1: Radio function is not supported



## 76. Connectivity _ PC Program

$\square$ It is inconvenient to use because the contents saved on the PC get deleted after deleting the program

- i-Phone : Even if the program is re-installed after being deleted, files previously backed up appear again in entirety
- S1: If Kies program is re-installed after being deleted, it needs to be reconfigured because there is no previously backed up data

- $81 / 132-$


## 77. Connectivity _ PC Program

You can't share files amongst multiple computers connected by the PC Program

- i-Phone: Files can be transferred between multiple computers by configuring home sharing in iTunes
- S1: Kies program does not have a function for sharing files amongst computers



## 78. Connectivity _ Bluetooth

## It is difficult to distinguish the searched BT Device list

- i-Phone : It only displays Bluetooth Devices that are in Pairing status
- S1: It shows all Devices that are in Bluetooth On status nearby

- $83 / 132-$


## 79. Messaging _ SMS

## It is difficult to switch between languages (English $\longleftrightarrow$ Korean)

- i-Phone: You can change the language using the Toggle button (input language can be selected in Settings)
- S1: You always have to go through keyboard setting- language setting-language selection ( $\mathbf{3}$ depths) to change the language

- 84 / 132 -


## 80. Messaging _ SMS

- Add to Contacts function when composing text messages is not easily recognizable
- i-Phone: "Add to Contacts" button exists so the other person's contact information can be saved to Contacts right away
- $\mathbf{S}$ : It is difficult to recognize the display for the Add to Contacts function

- $85 / 132-$


## 81. Messaging _ SMS

- Character/Symbol switch key shows the current status
- i-Phone: Character/symbol switch icon displays the mode scheduled to be switched to
- S1: Shows the mode currently being used

- $86 / 132-$


## 82. Messaging <br> _ SMS

- You have to manually switch back once a special character is entered in the text input mode
- i-Phone: When a special character is typed in in the text input mode, the keyboard automatically switches back to the text input mode
- S1: You have to manually switch back after typing in a special character by entering the special character mode

- 87 / 132 -


## 83. Messaging

 SMS$\square$ It is difficult to move cursor when inputting text

- i-Phone: Easy to move the cursor with a magnifying glass appearing over the area touched
- S1: Cannot see where the cursor is when selecting cursor location by touch because it gets covered by the finger



## 84. Messaging _ SMS

In the Abc mode of the text message entry system, additional Latin characters such as ' $\grave{A}$ Ê $\mathbf{I} \tilde{O}$ ' cannot be entered

- i-Phone: In the Abc mode, if the vowel button is long-pressed, an entry window containing additional Latin characters is shown
- S1 : Additional Latin characters can be entered only after changing the language mode



## Translation

## 85. Messaging _ SMS

$\square$ Many typographical errors occur while entering text because the keys on the keypad are not isolated enough from each other

- i-Phone: Although the size of the buttons is small, there is a large space between the keys horizontally/vertically
- S1 : The size of the buttons is large, but space between the keys is small

- 90 / 132 -


## 86. Messaging _ SMS

The content from the body of the message shown on the messaging list is short

- i-Phone: Shows two lines of content on the messaging list
- S1 : Shows only one line of content, and even that shows less content compared to i-Phone


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## 87. Messaging _ SMS

- Hard to enter "+" when entering recipient's phone number
- i-Phone: Easy to input "+" because the Qwerty keyboard shows up
- S1 : "+" cannot be entered with the 3 X 4 keypad

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## 88. Messaging _ SMS

- When attempting to select and delete SMS under one name, it is hard to select multiples
- i-Phone: When the content of the SMS is pressed in the SMS selection window, the message can be selected/cancelled.
- S1 : Must select only from the selection area to the right of the SMS.

- 93 / 132 -


## 89. Messaging _ E-mail

It is inconvenient to scroll left and right

- i-Phone: Mail can be seen in one glance because it is fit to the screen size
- S1 : Must scroll left and right because the display is not fit to screen size

- 94 / 132 -


## 90. Messaging _ E-mail

D Does not automatically refresh when entering the email inbox

- i-Phone: No matter what the situation is, mailboxes are updated when entering the email inbox
- S1 : There is the inconvenience of having to select Refresh from the hidden menu

- $95 / 132$ -


## 91. Messaging _ SNS

- Must go through multiple steps to upload photographs
- iPhone: Linked with the camera so the photographs can be immediately uploaded after being taken
- S1 : Camera function linked


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## 92. Messaging _ SNS

## - Auto keypad appears in random situations

- i-Phone: Auto keypad does not appear when accessing Profile or Friend
- S1 : Auto keypad appears when accessing Profile or Friend


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## 93. Messaging _ SNS

Because the size of the posted item is small, it is not easy to visually distinguish from the poster

- iPhone : The size of the posted item is large enough so that the visual distinction is clear
- S1 : The size of the posted item is small, so it is hard to visually distinguish

- 98 / 132 -


## 94. Messaging _ SNS

Confidential

- When viewing the posted image, full screen display is not available
- i-Phone: Converts to an image-view-specific display and displays in full screen
- S1 : Launches a browser and displays in a small screen

- 99 / 132 -


## 95. Multimedia _ Music Player

## Does not provide lyric display function in the Music Player

- i-Phone: From iPod, if the screen is touched while music is playing, lyrics are displayed (for the supported files)
- S1 : Does not provide lyric display function



## 96. Multimedia _ Music Player

## Intuitiveness falls short since the Searching Index Bar is not pre-displayed.

- i-Phone: Due to the searching tool that is displayed on the right side, searching can be done quickly
- S1 : Intuitiveness falls short on initial entrance because the scroll icon only appears after being touched

- 101 / 132 -


## 97. Multimedia

 _ Music Player
## Cannot control the music playback from playlist

- i-Phone: Can control the music playback from within the playlist through the control bar while music is playing
- S1 : There is no control bar within the playlist. (impossible to control)


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Inconvenient to control music play during BGM play when the LCD is off

- i-Phone: Control bar appears after pressing Home Key twice during BGM play
- S1: Control bar appears only when touching the upper disk screen after turning LCD on (hold key)


Directions for Improvement

Need improvements to enable one button access like the iPhone

## 99. Multimedia _ Music Player

$\square$ Does not provide a function enabling precise control over playback location within the music file while it is playing - i-Phone: Change in navigation speed by sections possible while music is playing (easy to navigate location)

- S1: Change in navigation speed by sections impossible

- 104 / 132 -


## 100. Multimedia _Music Player

$\square$ 2-step entry method for entering search terms is a hassle

- i-Phone: Direct search possible at the top of the full song list
- S1 : Access is a hassle because the search menu is contained in the second depth menu

- 105 / 132 -
$\qquad$ Voice Record
$\square$ Does not provide editing function for voice memos
- i-Phone: Provides a function to cut out unnecessary parts from voice memo files
- S1 : Does not provide editing function for voice memo files

- 106 / 132 -


## 102. Multimedia _ Video Player

When fast-forwarding/rewinding during video playback, cannot display the scene of current location

- i-Phone: During fast-forwarding/rewinding, shows the scene of then current location (useful for location search)
- S1: The screen pauses at the stopping point, and only the scroll bar moves


Does not provide a function for editing (trimming) video files from the video player

- i-Phone: Video files can be edited directly from the video player (possible to delete unnecessary parts)
- S1 : Not provided in video player, function provided in a separate video editor


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\text { - } 108 / 132 \text { - }
$$Only indicates the video file last played from the video playlist

- i-Phone: Remembers the status (stop, pause) of all video files that were played from the video playlist.
- S1 : Shows user only the most recently played file (no distinction of stop, pause)

- 109 / 132 -


## 105. Multimedia _ Camera

Perceived speed when entering Camera mode is slow.

- i-Phone: When entering Camera mode, the effect of lens screen closing/opening replaces the perceived time passage
- S1: Simple screen transitions are shown until Preview stage is reached.

- Execution Method aCamera execution © Enter Preview
- Offset user's perceived time passage with the dynamic UI of the camera lens



## S1

- Slow perceived speed due to the simple screen conversion at the preview stage
- Actual entry speed is superior
- S1: 0.9s
- iPhone : 2.9s


## 106. Multimedia _ Camera

Camera function icons are not intuitive

- i-Phone : Picture taking and mode switching icons are intuitive
- S1 : Supports various functions, but falls short in intuitiveness and recognizability.



## 107. Multimedia _ Album

Picture copying function not supported.

- i-Phone : Has picture copying function
- S1 : Function not supported



## 108. Visual Interaction Effect _ Email

## Translation

$\square$ No visual effects when moving e-mails to folders

- i -Phone : When a folder is selected, animation of mail icon flying into the folder is shown
- S1 : There is no moving menu when moving a mail; a pop-up appears when deleting (moving to trash)

- 113 / 132 -


## 109. Visual Interaction Effect _ Message

$\square$ No animation effect when deleting messages

- i-Phone : When deleting a message from folder, an icon is created and rotates when selected, providing fun factor
- S1 : Fun factor lacking because structured in the same existing check box format


[^4]
## 110. Visual Interaction Effect _ Icon

When editing menu icons, no visual effects at all

- i-Phone : Inserted the effect of all icons shaking left and right when an icon is long-pressed
- S1 : No effect when icon is deleted or moved


[^5]
## 111. Visual Interaction Effect _ Maps

$\square$ No visual effect when entering Options from Maps application

- I-Phone : Page flipping effect displayed when option key is pressed from Maps App
- S1 : Does not support the iphone-like animation on Navigation App


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-116 / 132-
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## 112. Visual Interaction Effect _ Maps

$\square$ No animation effect when designating PIN from Maps application

- i-Phone : Added animation showing pin dropping from the upper screen and hitting the ground when it is designated
- S1 : Animation not supported

- 117 / 132 -


## 113. Visual Interaction Effect _ Camera

$\square$ Lacks effect when entering the camera shooting screen, and after taking photographs

- i-Phone : Provides dynamic feel to the user by displaying effects when entering shooting screen and after taking photos
- S1 : Simple entry and lacks a feeling of completion after shooting as the screen immediately returns to Preview

| i-Phone |  |  | GT-i9000 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | -Offsets user's perceived time passage through dynamic UI of the camera lens <br> -After the photo is taken, effect resembling photo being saved in an album signals to user that the action is complete |  | -Perceived speed is slow due to simple screen transition from the preview stage <br> -Returns to preview screen immediately after photo is taken, so difficult to know if it saved properly |
| Directions for Improvement <br> Need to modify so that camera preview appears smoothly and to clearly give feedback to the user that saving is completed after taking a photo |  |  |  |  |

- 118 / 132 -


## 114. Visual Interaction Effect _ Memo

$\square$ When deleting a memo, lacks fun factor compared to i-phone

- i-Phone : When deleting memo, creates fun factor for users by displaying an animation of memo being sucked into the trash can
- S1 : Composed of check box structure identical to the existing format, so lacks fun factor


Directions for Improvement

## 115. Visual Interaction Effect _ Memo

$\square$ When flipping over the memo page, lacks fun factor compared to i-phone

- i-Phone : When turning over the memo, displays an animation of a page flipping over, generating fun for the users
- S1 : Can view saved memos from memo list, but page flipping function not supported


[^6]
## 116. Visual Interaction Effect_Attaching Photos

$\square$ When composing e-mail, picture attachment effect is lacking compared to i-Phone

- i-Phone : Effect of picture actually going on top of the email and being attached to it is fun
- S1 : Attached file is displayed in an icon format without any effect

- 121 / 132 -


## 117. Visual Interaction Effect _ Icon

Poor color arrangement of rectangular frames on the homescreen that form the backgrounds for icons

- i-Phone : Icons on home screen have high intuitiveness because a background is used only when necessary
- S1 : Many instances where icons have similar background colors even though they do not have similar


Directions for Improvement

Either change the colors of bordering rectangular frames according to a consistent pattern for a uniform feel, or remove the rectangular frame and use the icons only for a clean and uniform feel

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-122 / 132-
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## 118. Visual Interaction Effect _ Music player <br> Translation <br> Confidential

## Animation effects on the MP3 Play screen are inferior compared to iphone

- i-Phone: If MP3 album is selected during iPod play, introduces an animation of album spinning around and showing song titles in the back
- S1 : Plain animation of album moving to the left and song titles appearing on the right when selected


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## 119. Visual Interaction Effect _ Alarm

$\square$ When changing the set time for the alarm, speed is the same throughout, making it inconvenient

- i-Phone : When setting time, if wheel is spun quickly, it spins quickly at first then slows to a stop
- S1 : Inconvenient because of the flip pad method, only changes at a uniformly slow speed

- 124 / 132 -


## 120. Visual Interaction Effect _ Alarm

When setting time for alarm, emotional satisfaction is low due to monotonous sound effects

- i-Phone : Sound effect like winding the back of an old clock
- S1 : Dry sound effect of a simple mechanical sound

- 125 / 132 -


## 121. Visual Interaction Effect_Voice Recording

$\square$ No feedback on sound level when recording voice

- i-Phone : When using voice recorder, provides image of a microphone and displays volume
- S1 : Provides recorder as a background and does not display sound recording status (level)


Directions for Improvement

Select a background that gives an emotional and intuitive feel to the user when using the function Add feedback that indicates the volume of what is being said at the time

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## 122．Visual Interaction Effect＿Icon

$\square$ 다른 기능에 대해 유사 모양의 아이콘 채용으로 구분이 용이하지 않음 －i－Phone ：직관성이 높은 아이콘을 사용해 한눈에 알아보기 쉬움
－S1 ：중복되거나 직관성이 떨어지는 아이콘이 있어 구분이 용이하지 않음


최대한 겹치는 아이콘 을 배제하고 사용자들 이 한눈에 이해하고 쉽 도록 생각하고 사용자 를 배려하는 아이콘을 만든 것이 느껴짐

GT－i9000

겹치는 아이콘을 변경하고 직관성이 높은 아이콘을 선별하여 사용
개선 방향
명칭이 긴 어플의 경우 긴 명칭을 간단하게 바꾸거나 긴 명칭을 한번에 표현 가 능하도록 바꿔 이해가 쉽도록 함

## 123. Visual Interaction Effect _ Keypad

- No visual effect for keypad operation during calls
- i -Phone : When keypad is tapped, rotation effect is displayed during screen transition
- S1 : No animation effect during the screen transition for dial pad pop-up


Screen rotates during transition when Keypad or Hide Keypad is tapped during calls


Add screen transition effects such as rotation/fly-in when operating each kind of option menu
Directions for Improvement

## 124. Visual Interaction Effect _ Keypad

$\square$ Difficult to read because default key input mode is lower case and small in size

- i-Phone: Legibility is good because keypad text size is large and displayed in upper case letters
- S1 : Legibility is poor because keypad text size is small and displayed in lower case letters



## 125. Visual Interaction Effect _ Icon

$\square$ Visual effect is normal when media playback related keys are pressed

- i-Phone : When a key is tapped, the effect of slow spreading white color makes it luxurious
- S1 : When a key is tapped, the entire button box changes color to indicate the pressed state

- 130 / 132 -


## 126．Visual Interaction Effect＿Icon

미 메뉴 아이콘의 Graphical UI가 단조로움
－i－Phone ：빛을 이용한 입체적 효과 극대화，아이콘 테두리 곡선이 완만
－S1 ：빛을 받는 느낌 없고 아이콘 모서리 곡선의 부드러운 느낌이 덜함


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Certificate of Translation

10 May 2012

I hereby certify that this Korean to English translation of pages SAMNDCA00203880 to SAMNDCA00204010 of the document with the beginning Bates number SAMNDCA00203880 is an accurate and complete rendering of the contents of the source document to the best of my knowledge, except for the word "TRANSLATION" at the upper right corner of each translated page. I further certify that I am competent in both languages and have twenty years of professional experience in Korean to English translation.

By:



[^0]:    - 47 / 132 -

[^1]:    - $54 / 132-$

[^2]:    - $73 / 132$ -

[^3]:    - 76 / 132 -

[^4]:    - 114 / 132 -

[^5]:    - 115 / 132 -

[^6]:    - 120 / 132 -

