CTR-SDK

System Application/Applet Specifications

2012/07/13

Version 1.6

The content of this document is highly confidential and should be handled accordingly.

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1 Introduction

This document combines the following previously separate documents into one integrated specification for system applications and applets.

- *HOME Menu Manual* (only the applet specification portion)
- *Error/EULA Applet Overview*
- *CTR Software Keyboard Specification*
- *Readme.html* for system applications, system applets, and library applets

Be sure to read through this entire document before developing applications that use system applications or applets.

For overviews of the individual system applications and applets, see the *CTR Overview.*

For details on implementation methods, see the *CTR System Programming Manual.*

2 System Applications

System applications are applications that are built into the CTR system memory. This section explains some points of caution with respect to each system application. For overviews of the system applications, see the *CTR Overview*.

System Settings

System Update and **System Transfer** under **Other Settings** will always fail in environments other than retail systems.

Nintendo 3DS Camera

Please see Section 4.3 Photo Selector and Audio Selector for limitations on images that the Nintendo 3DS Camera can handle.

Mii Maker

The **QR Code - Image** feature in the Top Menu in Mii Maker, which is included in System Updater, cannot be used.

StreetPass Mii Plaza

StreetPass Mii Plaza, which is included in System Updater, is not for playing games using StreetPass, but only for encountered Mii characters.

3 Applet Types

Applets are small, modularized applications that provide specific features. Only applets provided by Nintendo can be used. Developers cannot develop proprietary applets. Applets run in a process separate from the application and are categorized as shown below, depending on how they are launched.

Table 3-1 Applet Types

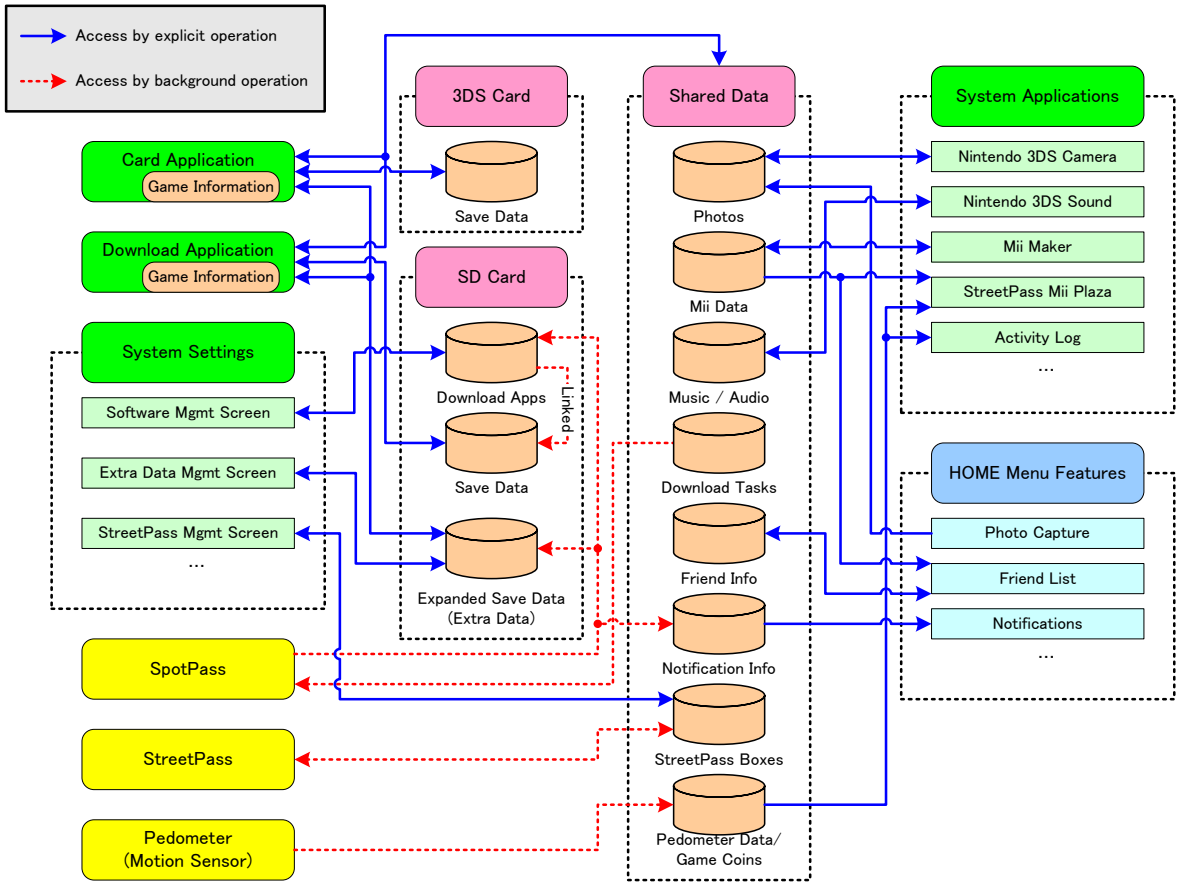
Applet Type	Launched By
Library Applets	Applications
HOME Menu Features (system applets)	HOME Button
Others (fatal error message display)	Resident in the system

The system generally allocates the memory required to launch an applet, but some applets require that working memory be passed from the application. The application must allocate the CPU resources, except for system-resident applets.

Information or system settings displayed by the HOME Menu and information accessed by system applications could include a game's own data, save data, expanded save data (extra data), and shared data.

The figure below shows which applications and features access these types of data.

Figure 3-1 Types of Data and Access by Features



4 Library Applets

Library applets provide features used in common by multiple applications or features that supplement applications together with their user interfaces.

- Software Keyboard
- Error/EULA Display
- Photo Selector
- Audio Selector
- Mii Selector
- Nintendo 3DS Circle Pad Pro Calibration
- EC

The section below describes the specifications for the software keyboard applet, the error/EULA display applet, and the Circle Pad Pro calibration applet. It also describes points of caution regarding Photo Selector and Audio Selector.

See the CTR Face Library package for information about the Mii Selection applet. See the *CTR ECDK Overview* for information about the EC applet.

4.1 Software Keyboard

This applet provides a software keyboard for user text input. Configure the launch parameters passed when calling the applet to customize the software keyboard features.

If you are using predictive text input, the set of characters that can be entered using the software keyboard applet is the same as the CTR internal fonts, excluding the Nintendo extended characters. Specifically, this includes the following:

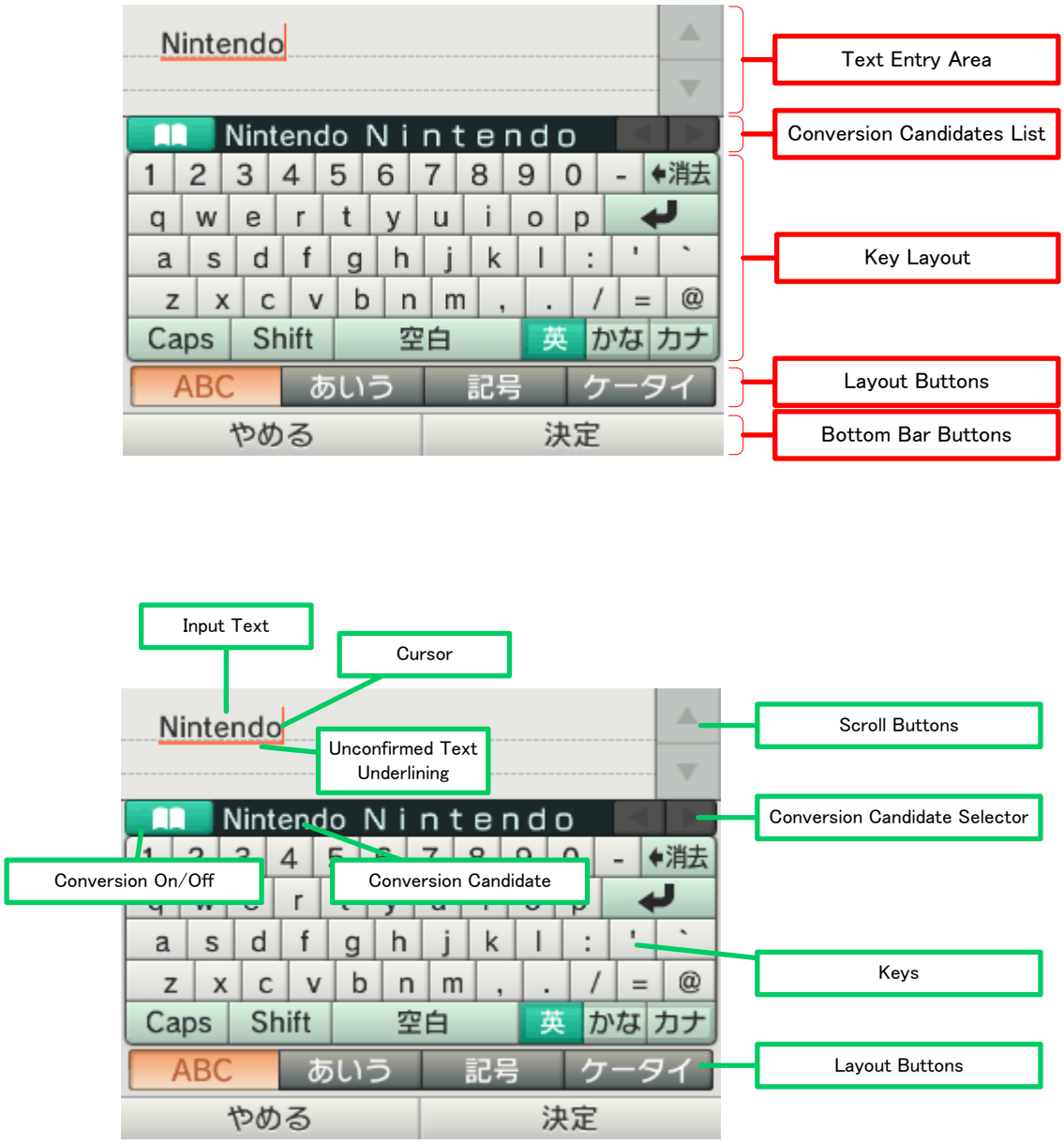
- ASCII 95
- CP 1252
- CP 1253
- ISO 8859-1 (Latin-1)
- ISO 8859-7
- JIS X0201
- JIS X0208
- Full-Width ASCII 94
- Hiragana Katakana 169
- Hanzi Common Level 1 2500
- Hanzi Common Level 2 998
- GB 2312
- Hangul Symbol 539
- Hangul Jamo Compatibility 94
- KSX1001 2350
- CP 950

If you are not using predictive text input, see the following documents.

- List of Characters Available with the CTR Software Keyboard Full Layout (swkbd_FullKeyboard_characters.html).
- List of Characters Available with the CTR Software Keyboard QWERTY Layout (swkbd_QwertyKeyboard_characters.html).

4.1.1 UI

Figure 4-1 Part Names



4.1.2 Configuring Launch Parameters When Calling

You can call the keyboard to match the application's setup.

Figure 4-2 QWERTY Keyboard with Japanese Conversion

Figure 4-3 Number Input and Visual Character Limit

The section below describes the settings that can be configured when calling the keyboard applet.

Items marked with the ○ circle symbol are the **default settings**.

4.1.2.1 Keyboard Types

Applications can select from the following three possibilities.

Table 4-1 Keyboard Types

	Setting	Description
○	Full Keyboard	Users can switch the layout at will. **Note**: For the Chinese, Korean, and Taiwanese regions, the predictive text input feature is always on.
	QWERTY Keyboard	Only allows alphanumeric input.
	Numeric Keyboard	Only allows numeric input, plus up to two additional symbols.
	No-Japanese Keyboard	No Japanese input possible. In the Japanese region, allows user to select only the QWERTY layout and the layout for symbols and extended European characters, with no access to Latin-alphabet input or predictive text. In other regions, allows the full keyboard with no predictive text.

We describe the full keyboard, QWERTY keyboard, and numeric keyboard features below.

Full Keyboard

This includes multiple layouts for each input method and contains all the available characters. Users can change the layout by pressing the button for the desired layout. The layout content and the layout buttons differ depending on the region and language settings.

Layout Content by Region

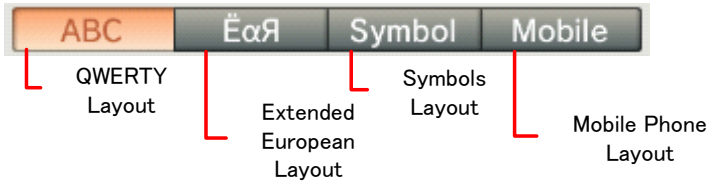
Table 4-2 Layout Content by Region

Japanese Region		North American and European Regions		European Region, Russian	
	QWERTY layout	○	QWERTY layout	○	Cyrillic layout
○	Kana layout		Extended European layout		QWERTY layout
	Symbols + extended European layout		Symbol layout		Extended European layout
	Mobile phone layout		Mobile phone layout		Symbol layout
					Mobile phone layout
Chinese Region		**Korean Region**		**Taiwanese Region**	
○	QWERTY layout		QWERTY layout	○	QWERTY layout
	Simplified Chinese (Pinyin) layout	○	Hangul Dubeolsik (두벌식) layout		Traditional Chinese (Zhuyin bopomofo) layout
	Kana layout		Symbols layout (기호)		Traditional Chinese (Cangjie) layout
	Symbols layout (符号)				Symbols layout (符號)

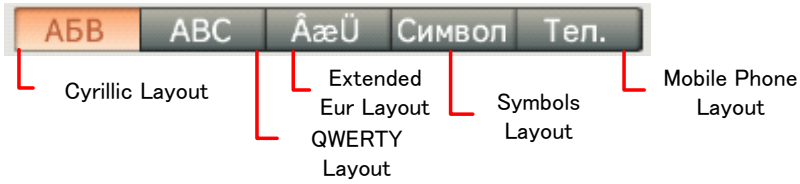
Figure 4-4 Layout Buttons

Japanese Region

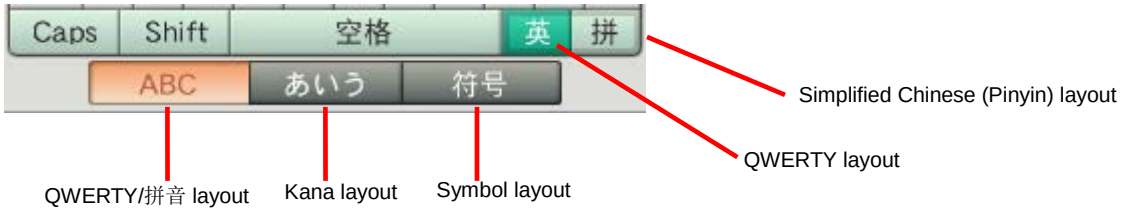
North American and European Regions



European Region, Russian Language

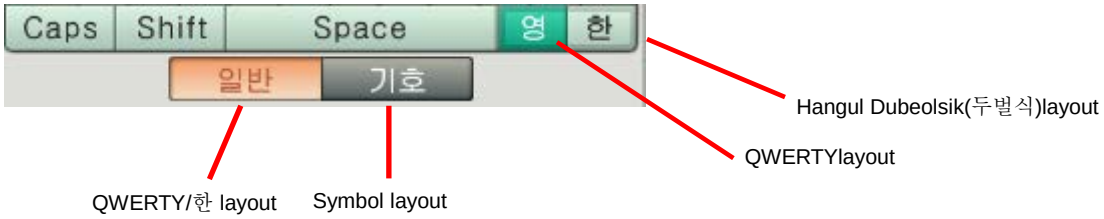


Chinese Region



Note: Press “ABC” and then press “英” for QWERTY layout

Korean Region



Note: Press “일반” and then press ““영” for QWERTY layout

Taiwanese Region

Note: Press “ABC/中文” and then press “英 for QWERTY layout.

- QWERTY layout

  General QWERTY keyboard, as used on a computer. Users can switch between alphanumeric and kana input in the Japanese region, and between predictive text dictionaries in the North American and European regions.

Figure 4-5 QWERTY Layout Screens

Japanese Region

North America and European Regions

Chinese Region

Korean Region

Taiwanese Region

Table 4-3 Computer-type QWERTY Keyboard Description

Key	Effect
Caps (a⇔A)	Caps lock.
Shift (↑)	Capitalizes next single letter key press.
Space	Single-byte space in international mode, double-byte space in Japanese kana mode
Input Selector (Japanese region)	英 = alphanumeric input | かな = alphabet-based hiragana input | カナ = alphabet-based katakana input
Dictionary Selector (North American / European regions)	Changes the conversion dictionary used when predictive text is turned on.

Figure 4-6 Dictionary Selector Dialog Box

This feature is enabled when predictive text is turned on. The user can select from four languages for the North American region, and eight languages for the European region. The currently selected language is shown on the button face. This feature switches the dictionary used for predictive text input, and does not alter the keyboard layout.

- Simplified Chinese (Pinyin) layout (Chinese region only)

  Provides a way to enter Chinese text using Pinyin (Simplified Chinese).

Figure 4-7 Simplified Chinese (Pinyin) Layout Screen

- Hangul Dubeolsik (두벌식) layout (Korean region only)

Provides keys to enter Hangul (Korean language) text.

Figure 4-8 Hangul Dubeolsik (두벌식) Layout Screen

- Traditional Chinese (Zhuyin Bopomofo) layout (Taiwanese region only)

  Provides keys to enter Chinese text using Zhuyin bopomofo (Traditional Chinese).

Figure 4-9 Traditional Chinese (Zhuyin bopomofo) Layout Screen

- Traditional Chinese (Cangjie) layout (Taiwanese region only)

  Provides keys to enter Chinese text using Cangjie (Traditional Chinese).

Figure 4-10 Traditional Chinese (Cangjie) Layout Screen

- Kana layout (Japanese, Chinese regions only)

  Provides keys for entering kana characters.

Figure 4-11 Kana Layout Screen (for Japanese region only)

Table 4-4 Kana Layout Screen (Japanese region only) Description

Key	Effect
Input Selector	かな = hiragana input | カナ = katakana input
空白(space)	Double-byte space
Diacritic keys	The dakuten,(゛) handakuten (゜) and 小字 "small character" keys are enabled after entering a character to which these apply.

Figure 4-12 Kana Layout Screen (for Chinese region only)

Table 4-5 Kana Layout Screen (Chinese region only) Description

Key	Effect
Input Selector	かな = hiragana input | カナ = katakana input
空白(space)	Double-byte space
Diacritic keys	The dakuten,(゛) handakuten (゜) and 小字 "small character" keys are enabled after entering a character to which these apply.
Predictive text input	Always disabled

- Symbols + Extended European Character Layout (Japanese region only)

  This layout is only available in the Japanese region. This provides keys for the input of symbols and extended European characters. It combines the symbol layouts for the North American and European regions with the extended European character layout. However, note that the symbols included are only available for the Japanese region. They do not include any Nintendo-defined characters. This is common for all regions.

Figure 4-13 Symbols + Extended European Character Layout Screen (Japanese region only)

Table 4-6 Symbols + Extended European Character Layout Description (Japanese region only)

Key	Effect
a⇔A	Caps lock.
Space	Single-byte space.
○/○	Current page number / Total pages
Page changer	Advances the page.

- Extended European character layout (North American / European regions)

This layout is available in the North American and European regions. This provides keys to input extended Latin characters, and Cyrillic and Greek characters, among others. These characters are commonly available in all languages.

Figure 4-14 Extended European Character Layout Screen (American and European regions)

Table 4-7 Extended European Character Layout Description (American and European regions)

Key	Effect
a⇔A	Caps lock.
Space	Single-byte space.
○/○	Current page number / Total pages
Page changer	Advances the page.

- Symbols layout (North American / European regions)

  This layout is available in the North American and European regions. Allows for the selection of symbols. These characters are commonly available in all languages.

Figure 4-15 Symbols Layout Screen (North American and European region)

Table 4-8 Symbols Layout Description (American and European region)

Key	Effect
a⇔A	Always disabled.
Space	Single-byte space.
○/○	Current page number / Total pages
Page changer	Advances the page.

- Symbols Layout (Chinese region only)

  Allows for the selection of symbols

Figure 4-16 Symbols Layout Screen (Chinese region)

Table 4-9 Symbols Layout Description (Chinese region)

Key	Effect
a⇔A	Always disabled.
Space	Single-byte space.
○/○	Current page number / Total pages
Page changer	Advances the page.

- Symbols Layout (Korean region only)

  Allows for the selection of symbols

Figure 4-17 Symbols Layout Screen (Korean region)

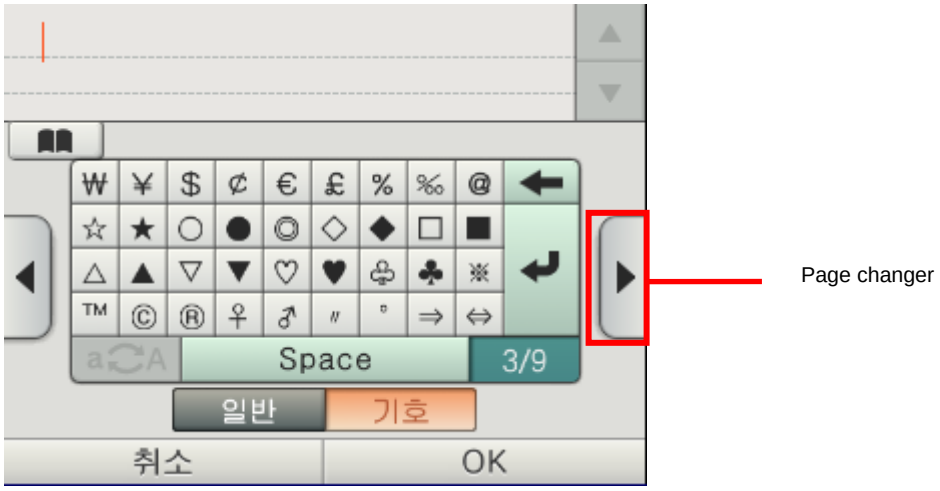


Table 4-10 Symbols Layout Description (Korean region)

Key	Effect
a⇔A	Always disabled.
Space	Single-byte space.
○/○	Current page number / Total pages
Page changer	Advances the page.

- Symbols Layout (Taiwanese region only)

  Allows for the selection of symbols

Figure 4-18 Symbols Layout Screen (Taiwanese region)

Table 4-11 Symbols Layout Description (Taiwanese region)

Key	Effect
a⇔A	Always disabled.
Space	Single-byte space.
○/○	Current page number / Total pages
Page changer	Advances the page.

- Mobile phone layout

  This layout mimics the numeric keypad of a mobile phone. It uses multi-tap input. All of the characters available in this layout are also available in other layouts.

  Note: There are no mobile phone layouts for the Chinese, Korean, and Taiwanese regions.

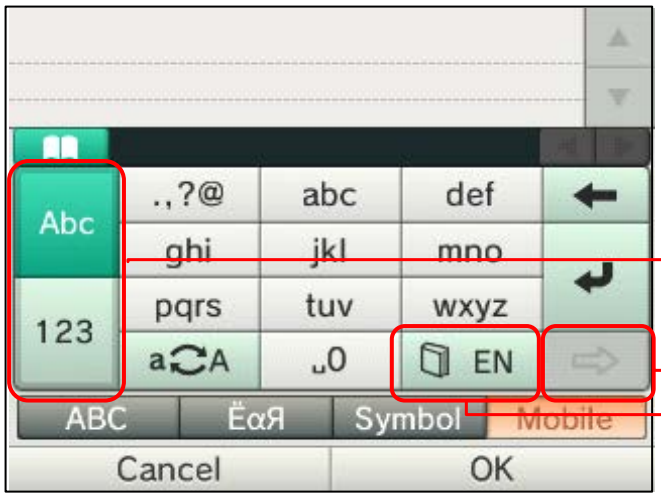
Figure 4-19 Mobile Phone Layout Screens

Japanese Region

Hiragana / Katakana / Alphabetic / Numeric input selector

Skip conversion

Outside Japan



Alphabetic / Numeric input selector (For Russian, Cyrillic input)

Skip autocorrect

Predictive text dictionary selector

Table 4-12 Mobile Phone Layout Description

Key	Effect
Input Selector	あいう = hiragana input | アイウ = katakana input | Abc = alphabetic input | 123 = numeric input
Space	A double-byte space when in hiragana or katakana input modes, and a single-byte space in other modes.
゛小゜ Diacritic keys (Japanese)	The “dakuten,” handakuten, and 小字 "small character" keys are enabled after entering a kana character to which these apply.
a⇔A	Caps lock.
⇒ Skip conversion	Confirm character and input next. Useful in cases such as inputting an "a" and wanting to input another "a." Enabled when a newly entered character has not yet been confirmed.
Dictionary Selector (North American / European regions)	Changes the conversion dictionary used when predictive text is turned on.

QWERTY Keyboard

QWERTY layout is limited to alphanumeric input. Users cannot switch to another keyboard mode.

Figure 4-20 QWERTY Keyboard Screen

Table 4-13 QWERTY Keyboard Description

Key	Effect
Caps	Caps lock.
Shift	Capitalizes next single letter key press.
Space	Single-byte space.
Input Selector	英 = alphanumeric input | Others disabled

Numeric Keyboard

Allows input of the numbers 0 through 9 and up to two additional symbols.

Figure 4-21 Numeric Keyboard Screen

- Specifying Extended Keys

  The application can specify additional symbols for the two keys on either side of the 0.

4.1.2.2 Bottom Bar Button Types

The bottom bar buttons are used to close the software keyboard applet. Applications can select from the following three bottom bar button layouts.

Table 4-14 Bottom Bar Button Types

	Setting	Description
	One button	One button across the whole bottom bar.
○	Two buttons	Two buttons each taking up a half of the bottom bar
	Three buttons	Three buttons each taking up a third of the bottom bar

The application can set the text for each button. Use the **Bottom Bar Button for Confirming Input** parameter described further below to choose which button will confirm input text, return that to the application, and close the software keyboard applet.

4.1.2.3 When Input Text Can Be Confirmed

You can configure conditions on when text input using the software keyboard can be confirmed. Applications can select from the following 5 possibilities.

Table 4-15 Description of When Input Text Can Be Confirmed

	Setting	Description
○	Can always confirm	Text can be confirmed regardless of the state of the input text
	One or more input characters	Text can be confirmed if the user has input at least one character
	Non-space character input	Text can be confirmed if the user has input non-space characters
	Non-space character input or no input	Text can be confirmed if the user has input non-space characters or nothing at all
	At least the maximum number of enterable characters	Text can be confirmed if the user has input at least the maximum number of enterable characters (specified separately)

Figure 4-22 Screen Showing When Input Text Can Be Confirmed

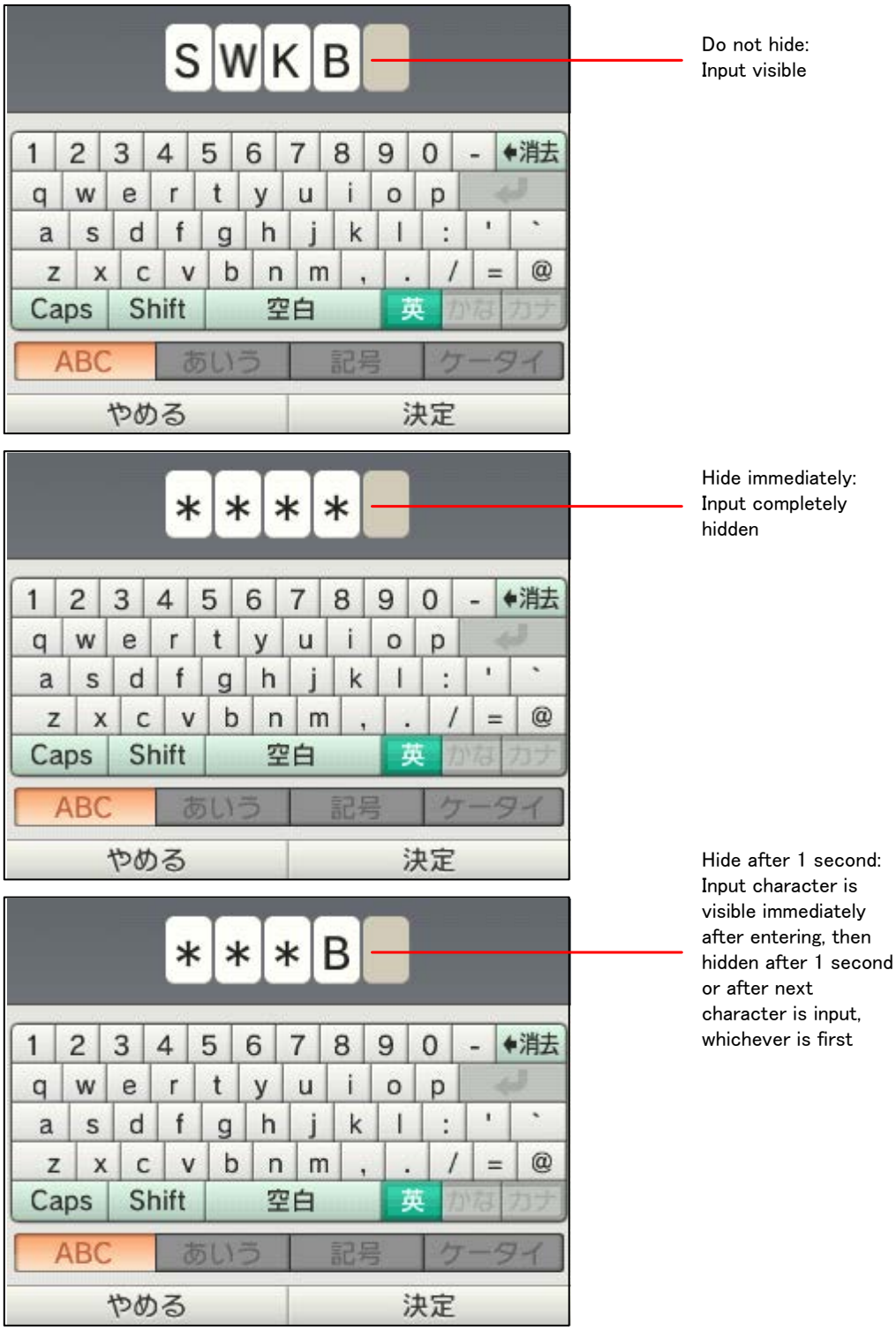
4.1.2.4 Hidden Input Mode

Input characters can be hidden, appearing on-screen as asterisks instead. Applications can select from the following three possibilities.

Table 4-16 Hidden Input Mode Description

	Setting	Description
○	Do not hide	Do not display input text as asterisks.
	Hide immediately	Input characters are immediately displayed in the text box as asterisks.
	Hide after one second	Input characters are shown in the text box as is and are then converted to asterisks either after 1 second, or when the user inputs the next character, whichever happens first.

Figure 4-23 Hidden Input Mode Screen



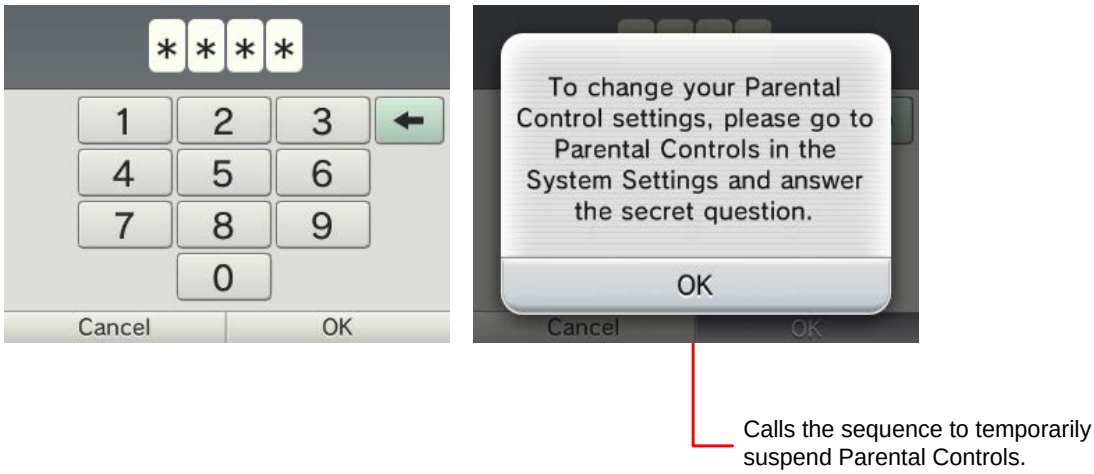
4.1.2.5 Temporarily Suspending Parental Controls

This calls the sequence to temporarily suspend Parental Controls, launching the applet with special parameter values.

Table 4-17 Description of Temporarily Suspending Parental Controls

	Setting	Description
○	Do not suspend	Does not temporarily suspend Parental Controls.
	Suspend	Calls the sequence to temporarily suspend Parental Controls.

Figure 4-24 Screen for Temporarily Suspending Parental Controls



4.1.2.6 Displaying on the Upper Screen

These are the settings for displaying on the upper screen when the software keyboard applet is called. The application does not run while the software keyboard is running, so the screen displays a still image.

Table 4-18 Description of Displaying on the Upper Screen

	Setting	Description
○	As is	Displays the application on the upper screen as is.
	Dark	Displays the application on the upper screen with a translucent black mask applied.

4.1.2.7 Checking Text

The applet can check input text before returning it to the application. You can either run the fixed applet checks, or run proprietary text checks in the application.

Table 4-19 Description of Checking Text

	Setting	Description
○	Do not check	Does not check text.
	Limit number of input numbers	Limits the number of numbers the user can input. (Related: 4.1.2.10 Maximum Number of Enterable Numbers)
	Prohibit @	Prohibits input of the @ symbol.
	Prohibit %	Prohibits input of the % percent symbol.
	Prohibit profanity	Prohibits input of any profane words.
	Check from the application	Leaves text checking up to the application.

- Limits on the Number of Input Characters

  Text checks have the following restrictions on the number of input characters.

Table 4-20 Description of Text Input Restrictions

Setting	Maximum Characters
Prohibit profanity	64 characters
Cases other than prohibiting profanity	2000 characters

4.1.2.8 Extended Output Data

The software keyboard applet can return the following additional information to the application when the applet quits.

Table 4-21 Extended Output Data Description

	Setting	Description
○	No extended output data	Does not return extended output data.
	Data about final operating state	The software keyboard applet returns its settings from just before quitting.
	Data about learned predictive text input	The applet returns any learned predictive text input.

4.1.2.9 Maximum Number of Enterable Characters

You can specify the maximum number of enterable characters.

Table 4-22 Description of Maximum Number of Enterable Characters

Setting	Description
Minimum–Maximum	1 to 65000 characters.

4.1.2.10 Maximum Number of Enterable Numbers

You can specify the maximum number of enterable numbers when using the "Limit number of input numbers" text check. Specify 0 to prohibit any number entry.

Table 4-23 Description of Maximum Number of Enterable Numbers

Setting	Description
Minimum–Maximum	0 to 65535 characters.

- Limit number of input numbers

  Numeric input restrictions have the following restrictions on the number of input characters.

Table 4 -4-24 Description of Numeric Input Restrictions

Setting	Character Limit
Limit number of input numbers	2000 characters

4.1.2.11 Bottom Bar Button Text

You can specify the text to display on the bottom bar buttons.

Table 4-25 Bottom Bar Button Text Description

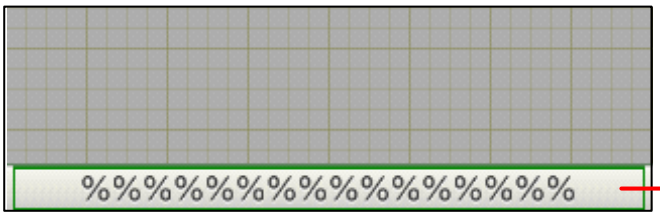
Setting	Description
Maximum	16 characters

- Layout Configuration

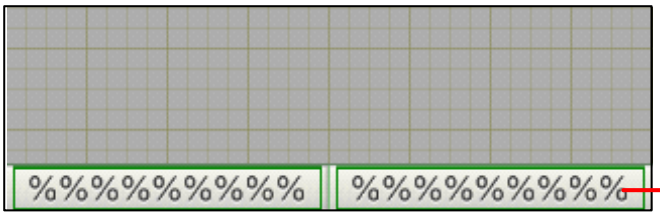
  Button widths and character sizes are as follows.

Figure 4-25 Layout Configurations

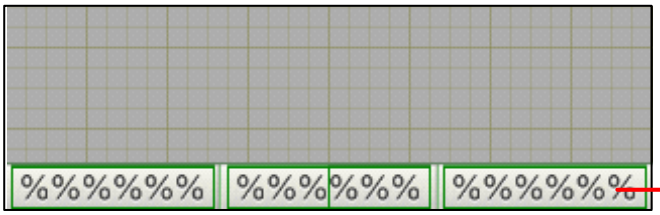
1 Button:



2 Buttons:



3 Buttons:



4.1.2.12 Hint Text (Hint Display / Initially Entered Text)

You can specify hint text to display in the text box before the user enters any text. The application can specify the text to display.

Table 4-26 Hint Text Description

Setting	Description
Maximum	64 characters

Figure 4-26 Hint Text Display Screen

Figure 4-27 Initially Entered Text Screen

The applet can redisplay previously entered text, such as when the user wants to edit a previously entered string.

4.1.2.13 Predictive Text Input

You can choose whether or not to use predictive text input.

Note: In the Chinese, Korean and Taiwanese regions, you cannot switch between using and not using predictive text input. The feature is always on for Pinyin, Hangul, Bopomofo and Cangjie input, even if you set if off.

Table 4-27 Predictive Text Description

Setting	Description
Use	Specifies whether to use.

Figure 4-28 Predictive Text Screen

Use Predictive Text

Do Not Use Predictive Text

When predictive text is not in use, the conversion candidate field is not displayed.

Use Predictive Text

When using predictive text, the user can toggle the feature on and off by clicking here.

Toggling this off behaves differently from configuring the feature to not be used, in that the conversion candidate field rolls up into the toggle button, and the toggle button is still displayed.

4.1.2.14 Using Carriage Returns

You can choose whether or not to use carriage returns.

Table 4 -4-28 Description of Using Carriage Returns

Setting	Description
Use	Specifies whether to use.

Figure 4-29 Screen Showing Use of Carriage Returns

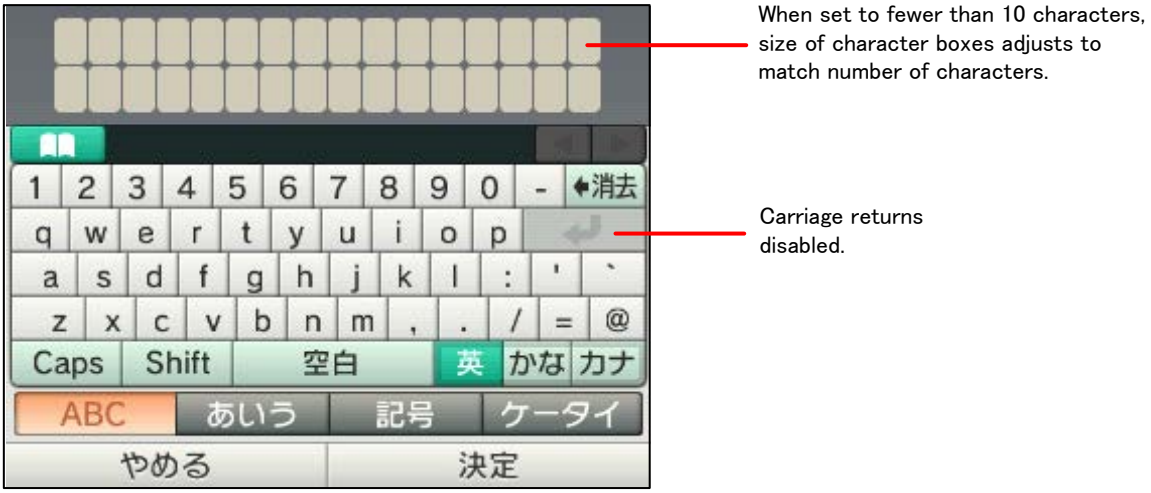
4.1.2.15 Fixed-Width Display Mode

This mode displays each character in a fixed-width box. You can specify the number of characters.

Table 4-29 Fixed-Width Display Mode Description

Setting	Description
Use	Specifies whether to use.
Character Minimum–Maximum	1 to 32 characters.

Figure 4-30 Fixed-Width Display Mode Screen



4.1.2.16 HOME Button

You can choose whether to quit the software keyboard applet when the HOME Button is pressed. When the user presses the HOME Button when the applet is configured not to quit, the applet informs the user that the HOME Button is currently disabled.

Table 4-30 HOME Button Description

Setting	Description
Quit	Specifies whether to quit.

4.1.2.17 Software Reset

You can choose whether to enable software resets.

Table 4-31 Software Reset Description

Setting	Description
Software Reset	Specifies whether to enable or disable.

4.1.2.18 Specifying QWERTY Layout on Launch

When specifying that the applet should use the full keyboard on launch, you can choose whether to use the QWERTY layout. If not specifying to use the QWERTY layout on launch, the applet uses the kana layout for Japanese, the Cyrillic layout for Russian, and the QWERTY layout for other languages.

Note: For the Korean region, the layout for Hangul Dubeolsik (두벌식) always launches.

Table 4-32 Description of Specifying QWERTY Layout on Launch

Setting	Description
Launch with QWERTY layout	Specifies whether to use.

4.1.2.19 Specifying the Bottom Bar Button for Confirming Input

You can specify which bottom bar button to use for confirming user input.

Table 4-33 Description of Specifying the Bottom Bar Button for Confirming Input

Setting	Description
Bottom Bar Button Selections	One button layout
	Two button layout, left button
	Two button layout, right button
	Three button layout, left button
	Three button layout, middle button
	Three button layout, right button

4.1.2.20 Display Language

Specifying the display language has the following effects on the software keyboard applet.

- Messages displayed on the applet screen will be in the specified language.
- The applet will use the keyboard layout for the specified language.
- When the applet starts, the dictionary for the specified language will be selected (the user can change the dictionary).

If a language that cannot be selected in the System Settings is specified, the behavior will be the same as when the default language for the region is selected (English in North America and Europe).

Table 4-34 Display Language Descriptions

Setting	Description
Default	The display language is not specified. The language that is set in System Settings is displayed.
Japanese	Specifies Japanese as the display language. However, specifying this has no meaning because there is no language selection for the Japanese region.
English	Specifies English as the display language. For the North American and European regions.
French	Specifies French as the display language. For the North American and European regions.
German	Specifies German as the display language. For the European region.
Italian	Specifies Italian as the display language. For the European region.
Spanish	Specifies Spanish as the display language. For the North American and European regions.
Chinese (Simplified)	Specifies Chinese (Simplified) as the display language. However, specifying this has no meaning because there is no language selection for the Chinese region.
Korean	Specifies Korean as the display language. However, specifying this has no meaning because there is no language selection for the Korean region.
Dutch	Specifies Dutch as the display language. For the European region.
Portuguese	Specifies Portuguese as the display language. For the North American and European regions.
Russian	Specifies Russian as the display language. For the European region.

4.1.3 Other

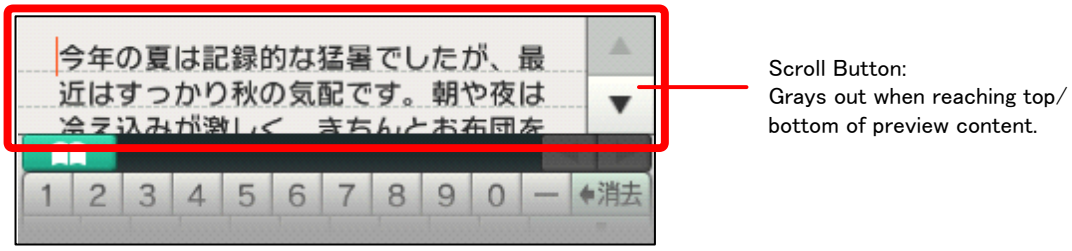
4.1.3.1 Text Box Behavior

The text box provides a preview of the entered text.

Proportional-Width Display Mode

This can display from 1 to 65000 characters.

Figure 4-31 Proportional-Width Display Mode Screen

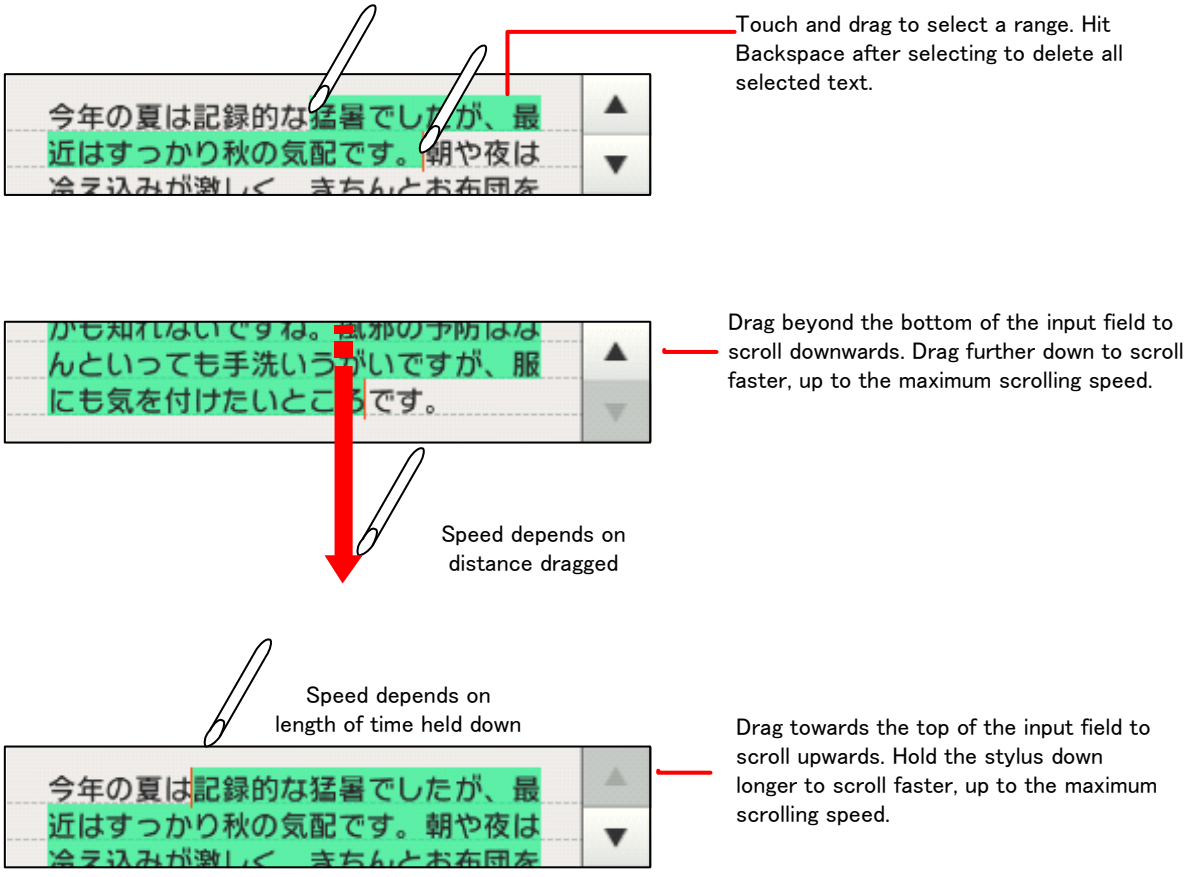


You can move the preview display position once three or more lines of text have been entered.

Table 4-35 Proportional-Width Display Mode Description

Control	Effect
Scroll button	Moves one line per touch, or hold down to scroll more than one line.
Drag-scroll	Users can also scroll by drag-touching to select a range of text, with the scrolling speed changing depending on the distance dragged or the length of time with the stylus touching the screen.

Figure 4-32 Drag-Scrolling



Fixed-Width Display Mode

The text box is divided into fixed-width per-character entry boxes. This can handle from 1 to 32 characters.

Figure 4-33 Fixed-Width Display Mode Screen

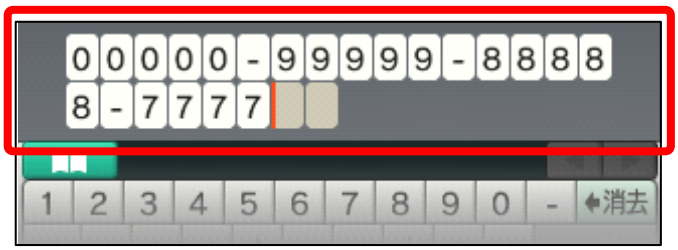


Table 4-36 Fixed-Width Display Mode Description

Control	Effect
Drag	Allows the user to select a text range by touch-dragging the stylus.

Figure 4-34 Dragging

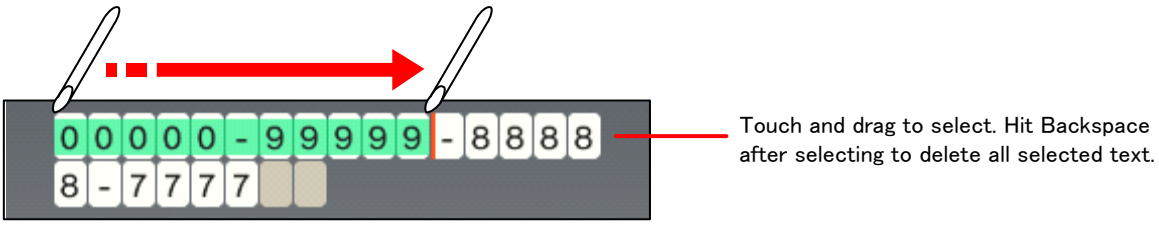
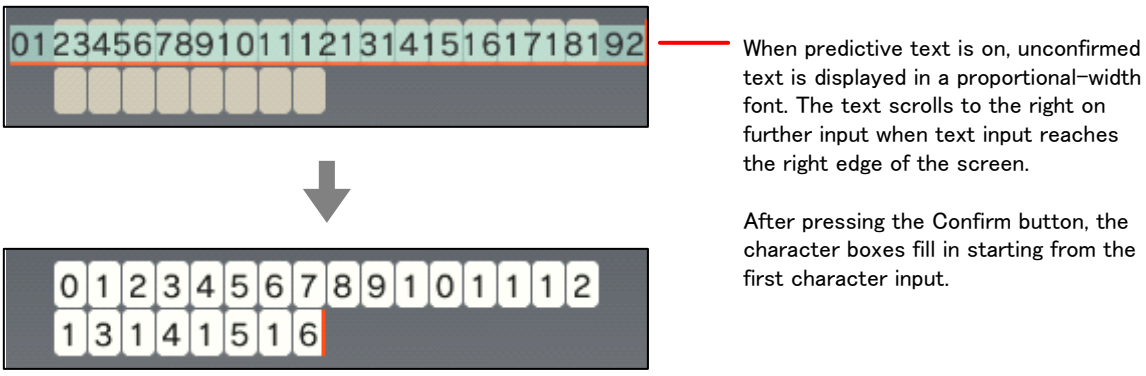


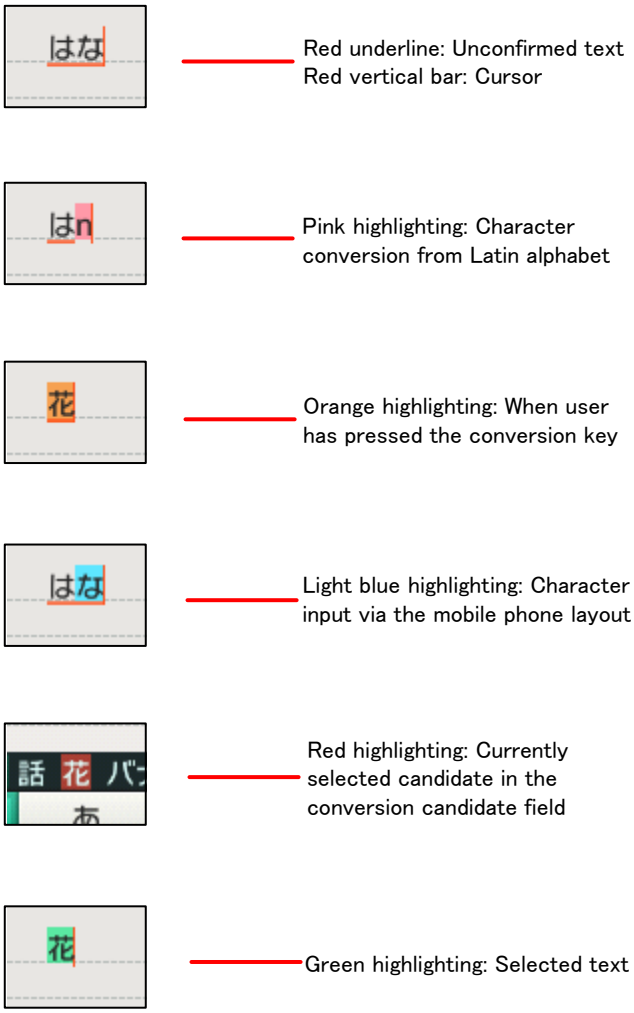
Figure 4-35 Unconfirmed Text Behavior



Cursor and Input Highlighting

This section describes how cursor and text highlighting is displayed for each text selection and input state.

Figure 4-36 Cursor and Input Highlighting Description



4.1.3.2 Key Controls

This section describes how cursor and text highlighting is displayed for each text selection and input state.

Table 4-37 Key Controls Description

Control	Effect
Software Keys	Stylus-up
Software Keys: Exceptions	The following exceptions are stylus-down buttons. • Keyboard keys (such as character keys, Enter, Caps Lock) • Text box scroll buttons
Software Keys: Key Repeat Enabled	The following keys will repeat if held down. • Backspace on the keyboard • Space and Conversion keys on the keyboard • Text box scroll buttons • Next Candidate button for the Conversion Candidates field
Hardware Keys	Disabled

4.1.3.3 Character Conversion

The CTR uses Omron Software's iWnn character conversion library. The following conversions are possible.

Table 4-38 Character Conversion Description

Conversion Method	Description
Predictive Text Input	Presents possibilities for the full word based on the text entered so far.
Kana/Kanji Conversion	Presents possible kanji and other options for the entered kana combination.

4.1.3.4 Region and Language Support

The software keyboard applet supports 13 languages.

Table 4-39 Region and Language Support Description

Region	Language Settings		Notes
Japan (JPN)	Japanese	JPN	
Europe (EUR)	UK English French Castilian Spanish German Italian Dutch Portuguese Russian	EU-ENG EU-FRA EU-SPA EU-GER EU-ITA EU-DUT EU-POR EU-RUS	
North America (US)	US English Canadian French Latin American Spanish Brazilian Portuguese	US-ENG US-FRA US-SPA US-POR	 Quebecois French Brazilian Portuguese
China (CHN)	Chinese (Simplified Chinese)	CHN	
Korea (KOR)	Korean	KOR	
Taiwan (TWN)	Chinese (Traditional Chinese)	TWN	

4.1.3.5 Other Implementation Specifications

Table 4-40 Description of Other Implementation Specifications

Item	Specification
Character encoding	UTF-16LE
Newline code	LF
Control code handling	No proper handling of anything other than LF and NULL

4.2 Error/EULA Display

The Error / EULA Applet is a library applet responsible for displaying certain error messages and the EULA agreement sequence.

4.2.1 Error Message Display

- This applet displays error messages when passed the error codes returned by infrastructure communication libraries, such as ac, friends, and NEX.
- The applet does not handle error messages from other libraries, but can display the desired error information when passed any string instead.

- If you are implementing a proprietary method for your application to display infrastructure communication error messages, implement it while referencing the Error Message List (in MS Excel format), which is distributed separately.

4.2.1.1 Startup Parameter Settings When Calling an Active Applet

Applications can display error messages that are applicable to each situation. This section describes the configuration parameters for calling active applets upon an error message display.

HOME Button

By pressing this button you can select whether to quit the applet. If you choose not to quit, a message will be displayed when the HOME Button is pressed to indicate that it is disabled.

Table 4-41 HOME Button Description

Setting	Description
Quit	Yes/No

Software Reset

Selects whether to enable software reset.

Table 4-42 Software Reset Description

Setting	Description
Software reset	Enable/Disable

Error Type

Specifies the error message display format.

Table 4-43 Error Type Description (Error Message Display)

Setting	Description
Error Code Display	Network error. Displays the infrastructure communication error message for the error code.
Custom Error Display	Custom error. Uses this applet's UI to display the freely defined string.
Specified Display Language Error Code Display	Displays a network error message using the specified display language.
Specified Display Language Custom Error Display	Displays a custom error message using the specified display language.
Custom Error with Auto-Text Wrap Function Display	Displays a custom error message with an auto-text wrap function.
Specified Display Language with Auto-Text Wrap Function Custom Error Display	Displays a custom error message with an auto-text wrap function using the specified display language.

The auto–text wrap function wraps text wider than one line in the display at the location of single-width space (U+0020) or double-width space (U+3000) within the text. This function will not do anything if there are no spaces in the text, even if the text does not fit on a single line in the display. You will thus need to add line breaks beforehand when displaying URLs and the like. Use a non-breaking space character (U+00A0) for spaces that you do not want to wrap.

- Error Code
    - The error code returned from the infrastructure communication libraries, and is displayed at the top of the lower screen.
    - Only enabled when the error type is a network error or a custom error.
    - Specify 0 (zero) to display "An error has occurred" at the top of the lower screen.
- Freely defined string
    - Up to a maximum of 1900 characters (including NULL terminator).
    - Only enabled when the error type is “custom error display”.
    - Displayed using the built-in font for the system's region. For example, on a system configured for the Japanese region, the specified text passed to the applet in Korean appears corrupted.
- Application jump recommended flag
    - Enable this to display a dialog box recommending that the user jump to the Internet settings section of System Settings, after first displaying the error message (see flow).
    - Only enabled when the error type is a network error or a custom error.
    - This does not automatically carry out an application jump.
- Display language
    - Specifies the language used by the error/EULA applet to display messages.
    - Only enabled when the error type is “Specified Display Language”.
    - The table below shows how to specify this and the behavior for each region.

If a language that cannot be selected in the System Settings is specified, the behavior will be the same as when the default language for the region is selected (English in North America and Europe).

Table 4-44 Display Language Descriptions

Setting	Description
Default	The display language is not specified. The language that is set in System Settings is displayed.
Japanese	Specifies Japanese as the display language. However, specifying this has no meaning because there is no language selection for the Japanese region.
English	Specifies English as the display language. For the North American and European regions.
French	Specifies French as the display language. For the North American and European regions.
German	Specifies German as the display language. For the European region.
Italian	Specifies Italian as the display language. For the European region.
Spanish	Specifies Spanish as the display language. For the North American and European regions.

Setting	Description
Chinese (Simplified)	Specifies Chinese (Simplified) as the display language. However, specifying this has no meaning because there is no language selection for the Chinese region.
Korean	Specifies Korean as the display language. However, specifying this has no meaning because there is no language selection for the Korean region.
Dutch	Specifies Dutch as the display language. For the European region.
Portuguese	Specifies Portuguese as the display language. For the North American and European regions.
Russian	Specifies Russian as the display language. For the European region.
Chinese (Traditional)	Specifies Chinese (Traditional) as the display language. However, specifying this has no meaning because there is no language selection for the Taiwanese region.

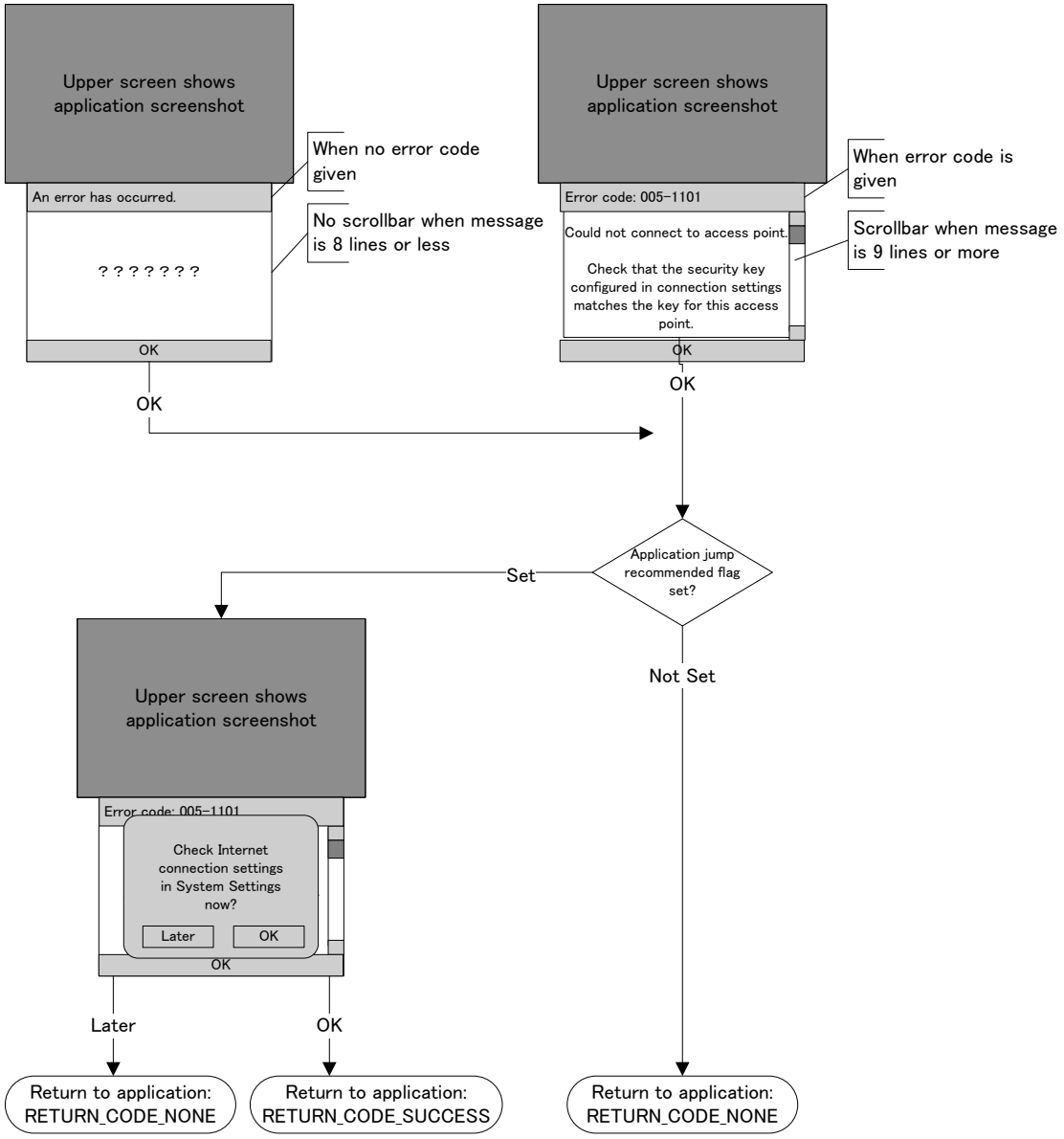
4.2.1.2 Display Rules for Freely Defined Strings

Messages of no more than eight lines are displayed on the screen with no scroll bar. Such messages are displayed centered vertically and horizontally on the screen, unless the first line is left blank.

Messages of nine lines or more are displayed with a scroll bar. Text that spans multiple pages does not display properly, so be sure to manually add carriage returns so the text fits within the width of the screen. If you specify an error type with an auto-text wrap function, then line breaks will be added automatically.

4.2.1.3 Error Message Display Flow

Figure 4-37 Error Message Display Flow



4.2.2 EULA Display

- This applet displays the sequence for the user to agree to the end-user licensing agreement (EULA) for use of the network services and returns the resulting agreement or non-agreement to the application.
- All of the infrastructure and StreetPass communication functions used by an application will return a EULA non-agreement error if the user does not agree to the EULA required for that application. The EULA covers such things as logging in to NEX, registering download tasks, and creating StreetPass boxes.

- The various EULA versions required for applications are automatically included in the ROM. When code in an application calls this applet, you must first call the **`nn::cfg::CTR::IsAgreedEula`** function to check if the EULA for the SDK was accepted, and then call this applet if the EULA has not yet been accepted. This applet only properly returns EULA agreement or non-agreement if the EULA has not yet been accepted when the applet is called.

Startup Parameter Settings When Calling an Active Applet

Applications can show a EULA display that fits each situation. This section describes the configuration parameters for calling active applets upon EULA display.

HOME Button

By pressing this button you can select whether to quit the applet. If you choose not to quit, a message will be displayed when the HOME Button is pressed to indicate that it is disabled.

Table 4-45 HOME Button Description

Setting	Description
Quit	Yes/No

Software Reset

Selects whether to enable software reset.

Table 4-46 Software Reset Description

Setting	Description
Software reset	Enable/Disable

Error Type

Specifies the error message display format.

Table 4-47 Error Type Description (EULA Display)

Setting	Description
EULA display	Normal EULA display.
Specified Display Language EULA display	Specifies display language and shows EULA display.

Display language

- Specifies the language used by the error/EULA applet to display messages.
- Only enabled when the error type is “Specified Display Language EULA Display”.
- If a language that cannot be selected in the System Settings is specified, the behavior will be the same as when the default language for the region is selected (English in North America and Europe).

Table 4-48 Display Language Descriptions

Setting	Description
Default	The display language is not specified. The language that is set in System Settings is displayed.
Japanese	Specifies Japanese as the display language. However, specifying this has no meaning because there is no language selection for the Japanese region.
English	Specifies English as the display language. For the North American and European regions.
French	Specifies French as the display language. For the North American and European regions.
German	Specifies German as the display language. For the European region.
Italian	Specifies Italian as the display language. For the European region.
Spanish	Specifies Spanish as the display language. For the North American and European regions.
Chinese (Simplified)	Specifies Chinese (Simplified) as the display language. However, specifying this has no meaning because there is no language selection for the Chinese region.
Korean	Specifies Korean as the display language. However, specifying this has no meaning because there is no language selection for the Korean region.
Dutch	Specifies Dutch as the display language. For the European region.
Portuguese	Specifies Portuguese as the display language. For the North American and European regions.
Russian	Specifies Russian as the display language. For the European region.
Chinese (Traditional)	Specifies Chinese (Traditional) as the display language. However, specifying this has no meaning because there is no language selection for the Taiwanese region.

4.2.2.1 Output Parameters

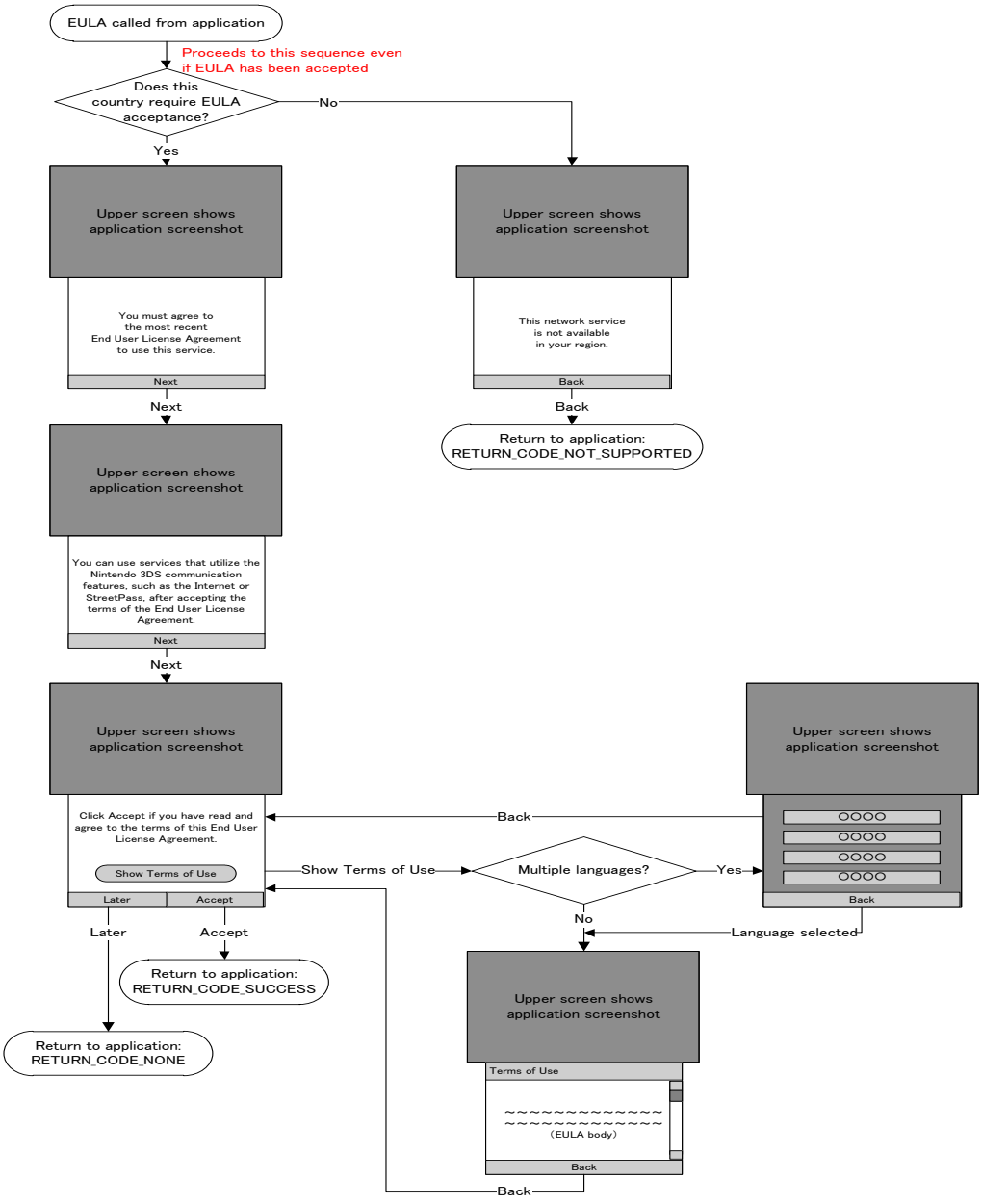
- In the applet, if you agreed to the EULA, you can get the EULA version that you agreed to.
- For EULA versions, the first byte is the major version number, and the last byte is the minor version number.
- The version at launch time is 1.0.
- Upgrades usually increment the minor version number, but major upgrades that require an additional special EULA agreement increment the major version number.

4.2.2.2 Other Special Notes

The main body of the EULA is built into the system. Any updates to the EULA body text are generally carried out together with system updates.

EULA Display Flow

Figure 4-38 EULA Display Flow



4.3 Photo Selector and Audio Selector

Photo Selector

This applet lets you browse and select photos saved on an SD Card. Note the following:

- Applications that use photos must follow the UGC Guidelines.
- Use the ImageDb library to load the selected photographic content.
- Images larger than 480 x 240 are reduced during decoding. If the resulting image is smaller than the display area, the excess area is blacked out.

The following limitations apply to the images that system applications and libraries can use. However, the system and ImageDb use the CTR-SDK's `nn::jpeg` library, so there are also some images that meet the following requirements but are still not available for use.. For more details, see the *CTR-SDK Function Reference*.

Table 4-49 Limitations on Image Usage

	Nintendo 3DS Camera	Photo Selector Applet Images loaded from ImageDb	Images written to ImageDb
Maximum resolution	4096 x 3072 pixels Larger images are reduced when loaded (see Note 1).		4096 x 3072 pixels
Minimum resolution	160 x 120 pixels If an image is reduced, the resulting image must meet this condition.		
Data size	10 MB or less	400 KB or less	JPEG: 200 KB or less MPO: 400 KB or less The library adjusts quality automatically to fit within these limitations.
Thumbnail	1280 x 960 pixels or less However, images are reduced in size to 320 x 240 pixels or less (see Note 2).		Automatically created at 160 x 120 pixels or less.

Note 1: The Nintendo 3DS Camera and ImageDb shrink images to 1024 x 768 pixels or less; the Photo Selector applet shrinks them to 480 x 240 or less. Images are shrunk to either 1/2, 1/4, 1/8, or 1/16 of their original size, based on their size.

Note 2: Images that do not have thumbnails cannot be handled, unless the following conditions are met.

- Resolution of the original image is 1024 x 768 or less.
- The size of the image is no more than 200 KB for JPEG images, or 400 KB for MPO images.

Audio Selector

This applet lets you browse and select audio recorded to an SD Card using Nintendo 3DS Sound. However, note the following points.

- Follow the *CTR Guidelines: UGC* when using audio in applications.
- Use the separate SoundIO library to load the selected audio content.

4.4 Circle Pad Pro Calibration

The Circle Pad Pro calibration applet is a library applet to calibrate the operations of the Right Circle Pad that is built into the Circle Pad Pro. For applications that support the Circle Pad Pro, in order for a user to be able to calibrate the Right Circle Pad, a scene to launch this applet must be prepared.

4.4.1 Startup Parameter Settings When Calling an Active Applet

Applications can call an applet in a form that fits each situation. This section describes the configuration parameters for calling applets.

HOME Button

By pressing this button you can select whether to quit the applet. If you choose not to quit, a message will be displayed when the HOME Button is pressed to indicate that it is disabled.

Table 4-50 HOME Button Description

Setting	Description
Quit	Yes/No

Software Reset

Selects whether to enable software reset.

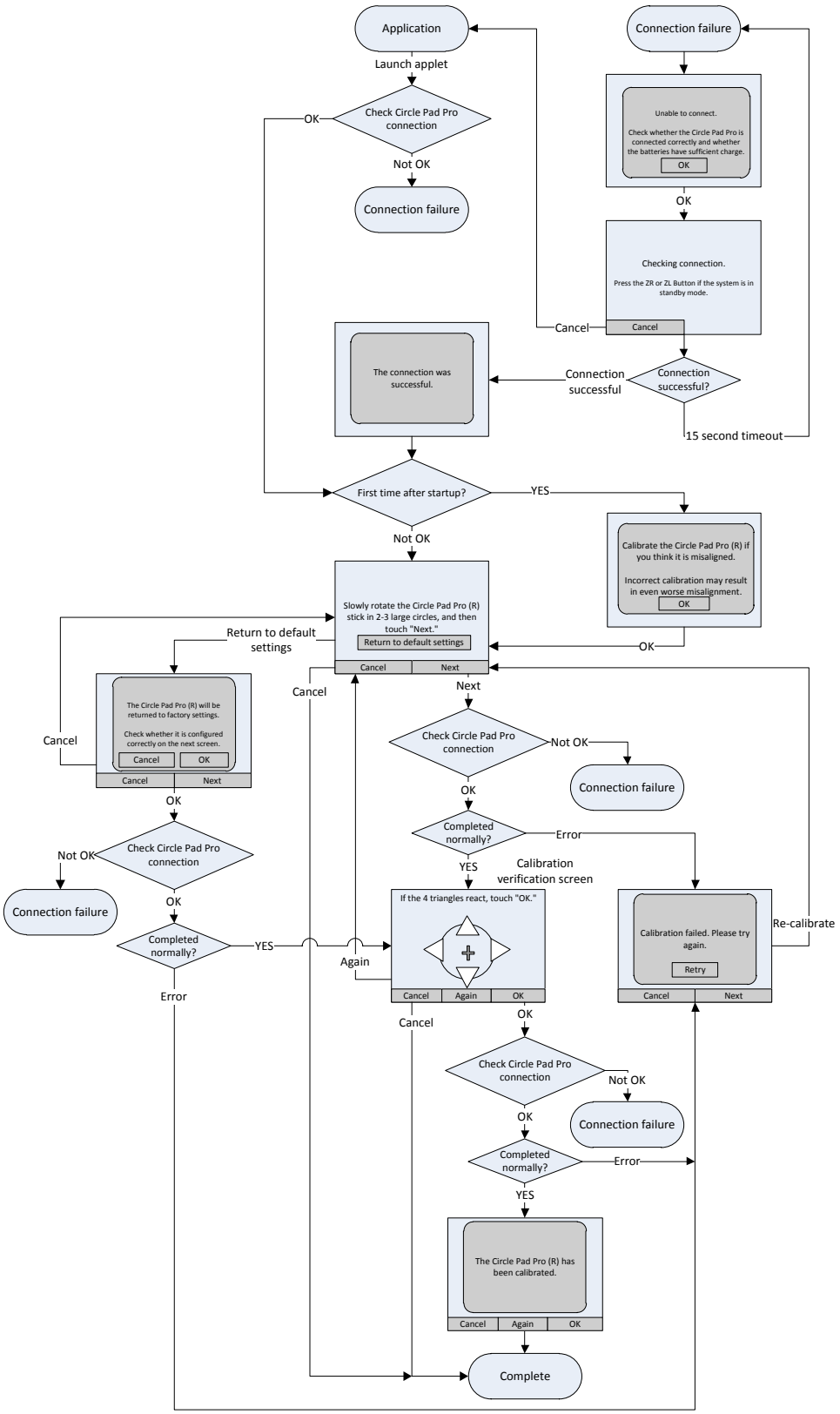
Table 4-51 Software Reset Description

Setting	Description
Software reset	Enable/Disable

4.4.2 Circle Pad Pro Calibration Applet Operation Flow

The operation flow of this applet is as indicated in Figure 4-39. The upper screen is also used in this applet but it is omitted here.

Figure 4-39 Circle Pad Pro Calibration Applet Operation Flow



5 HOME Menu Features (system applets)

HOME Menu features are provided by the HOME Menu itself, which appears right after booting the CTR or when the user presses the HOME Button, and by various applets that can be launched from the HOME Menu, listed below.

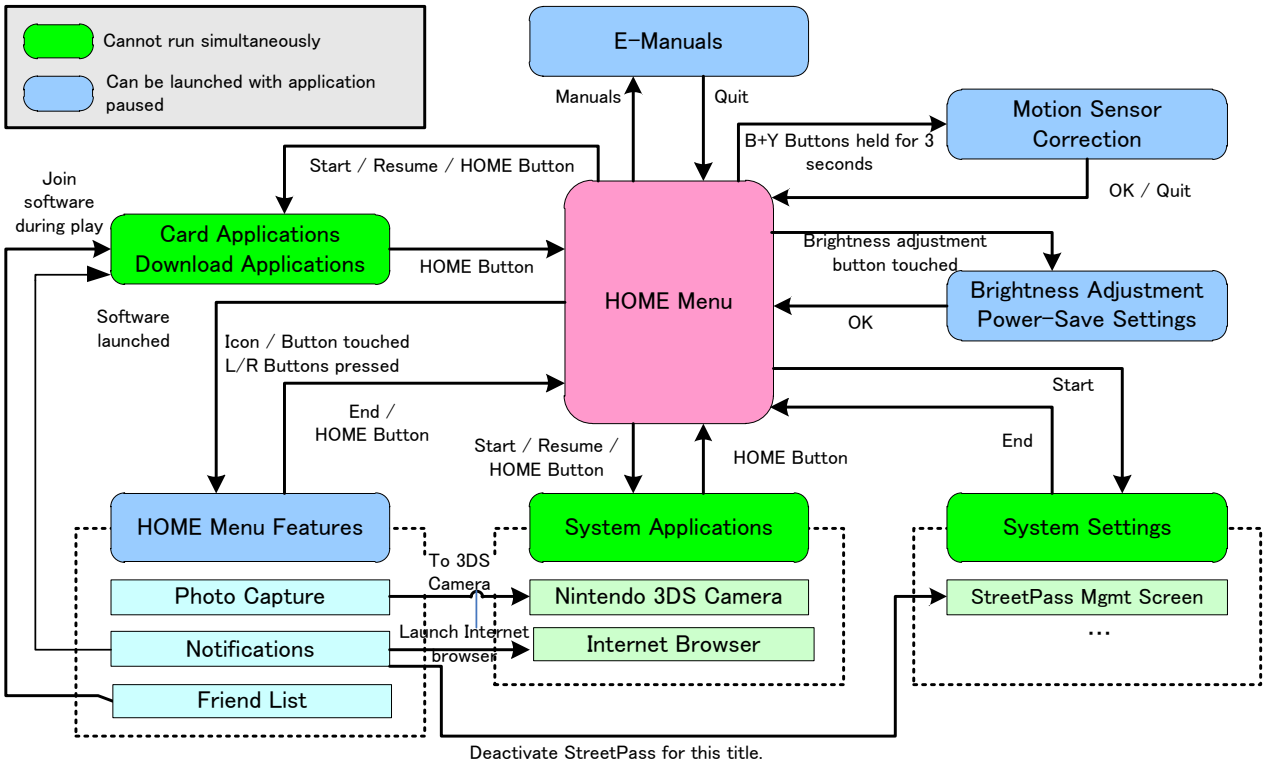
- HOME Menu
- Friend list
- Notifications
- Photo Capture
- Game Notes
- Internet Browser
- E-Manual

The section below describes the specifications for the HOME Menu, friend list, and Notifications applets.

5.1 HOME Menu

The HOME Menu appears after powering on the CTR system. It can be used to start and quit applications and applets. The following diagram illustrates the transitions between the HOME Menu and other features.

Figure 5-1 Transitions Between the HOME Menu and Other Features

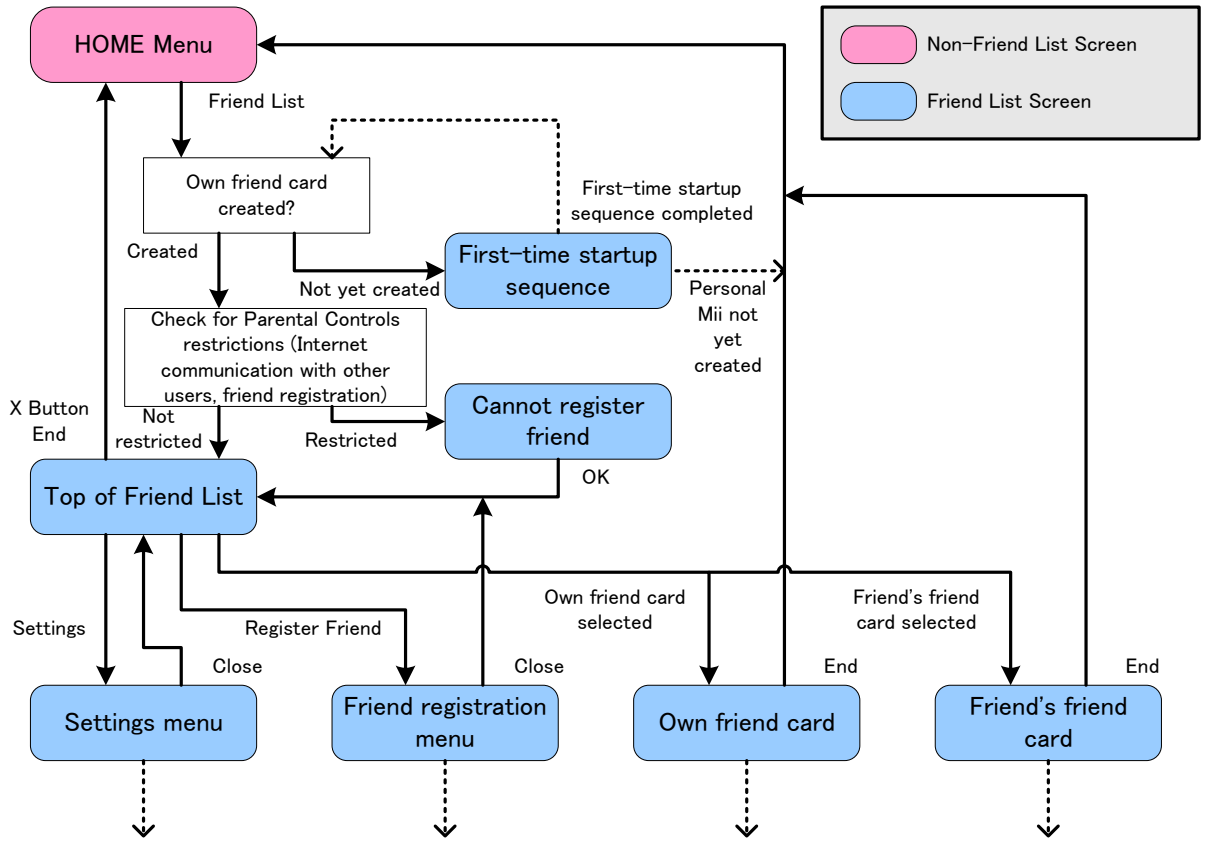


5.2 Friend List

Use this applet to register and view friends. When two CTR systems have registered each other as friends, the list shows the following kinds of information when the other friend is online.

- Online status
- Information about the game currently being played
- Status message

Figure 5-2 Flow for Launching the Friend List from the HOME Menu and Other Transitions



5.2.1 Friend Cards

Friend cards display friend information when viewing in the friend list.

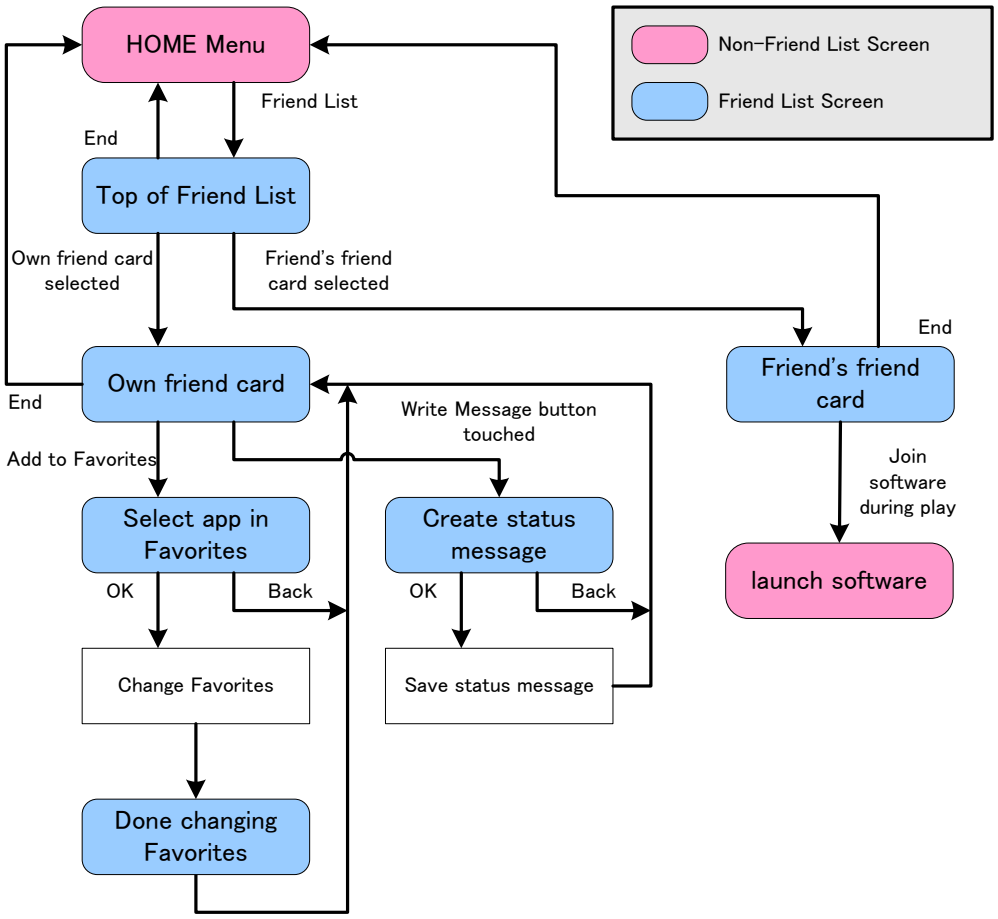
Create your own friend card according to the first-time startup sequence brought up the first time you launch the friend list. Friend cards display the following kinds of information.

- Personal Mii (special Mii that is not deleted)
- Friend code
- Favorite software

This is the basic information presented on a friend card. Friend cards can include additional features, such as status comments, the presence feature, and the join-in feature.

Select your own friend card on the friend list to change your favorite software listing and create your status message. The figure below describes the transition flow when selecting a friend card on the friend list.

Figure 5-3 Flow When Selecting a Friend Card



5.2.1.1 Presence Feature

The presence feature notifies your friends when you are online (connected to the Internet) with your presence information (online status, last time online, game currently playing). Any deleted friends are not notified.

When both you and a friend are online, each other's friend cards show your respective presence information. Use the friend notification settings to configure your system not to notify your friends of your presence information. Users are prompted to configure this setting during the first-time setup sequence.

Online status is shown using the Mii on the friend card or with the text "Online". When online status notifications are allowed and you are online but a friend is not, their friend card will display a message stating when last they were online. This message is displayed for up to 10 days from the last online time, and it disappears if the friend has not been online for more than 10 days.

The information on the game shown as “Currently Playing” consists of the game's title, its icon, and its description. For the description, you can specify a string of up to 2 lines with a maximum of 64 characters on each line (including the string termination character). The display width is 16 of the widest character in the built-in font. (The character is “%” in Japan, the Americas, and Europe. In other

regions, it might be a Hiragana, Kanji, or Hangul character.) You can optionally include information about the player's progress in the game, but commercial messages are not allowed. In addition, this text is intended to be viewed by other users, so be sure the text is appropriate for all ages. If your application allows users to enter this text, your application must be implemented to prevent the display of any text that would violate the *UGC Guidelines* (such as restrictions on the number of characters or restrictions on profanity). You can also configure the text for software that does not support online features.

What presence information is shown on a friend card depends on whether you and the friend are online and on your friend's notification settings, as shown below.

Table 5-1 Conditions Affecting Display of Presence Information on a Friend Card

Own Status		Offline	Online	Online	Online	Online	Online
Friend's Status		—	Offline	Offline	Online	Online	Online
Friend's Notification Settings	**Online Status**	—	Hide	Show	Hide	Show	Show
	Current Software	—	—	—	—	Hide	Show
Online Status		no	no	yes	no	yes	yes
Last Time Online		no	no	yes	no	*	*
Current Software		no	no	no	no	no	yes
Current Software Information		no	no	no	no	no	yes

* Friend is also online, so last time online is not shown.

Note: The icon (image or title string, different for each region) of the software a friend is currently playing is displayed if saved on the system. Icons are obtained from a game and saved on a system when the software is launched on that system. However, systems that have never launched that particular software will not have the icon, and in such cases, the system downloads an icon from the icon database server for display on the friend card when viewing the friend list.

Icons are registered to the icon database server after an application passes Lotcheck, so the application must pass Lotcheck for all regions to use the same icon for all regions. However, development systems where the system region has been changed without initializing the system will have software icons saved for each region setting under which the software is launched.

5.2.1.2 Join-In Feature

When a user is playing a game, the join-in feature notifies the user’s friends that they can play the application with the user, and enables those friends to join in gameplay.

If a user views a friend’s friend card when it is possible to join into a game in progress, then the “join in” button on the card will be enabled. If the user touches this button, then the system will launch software

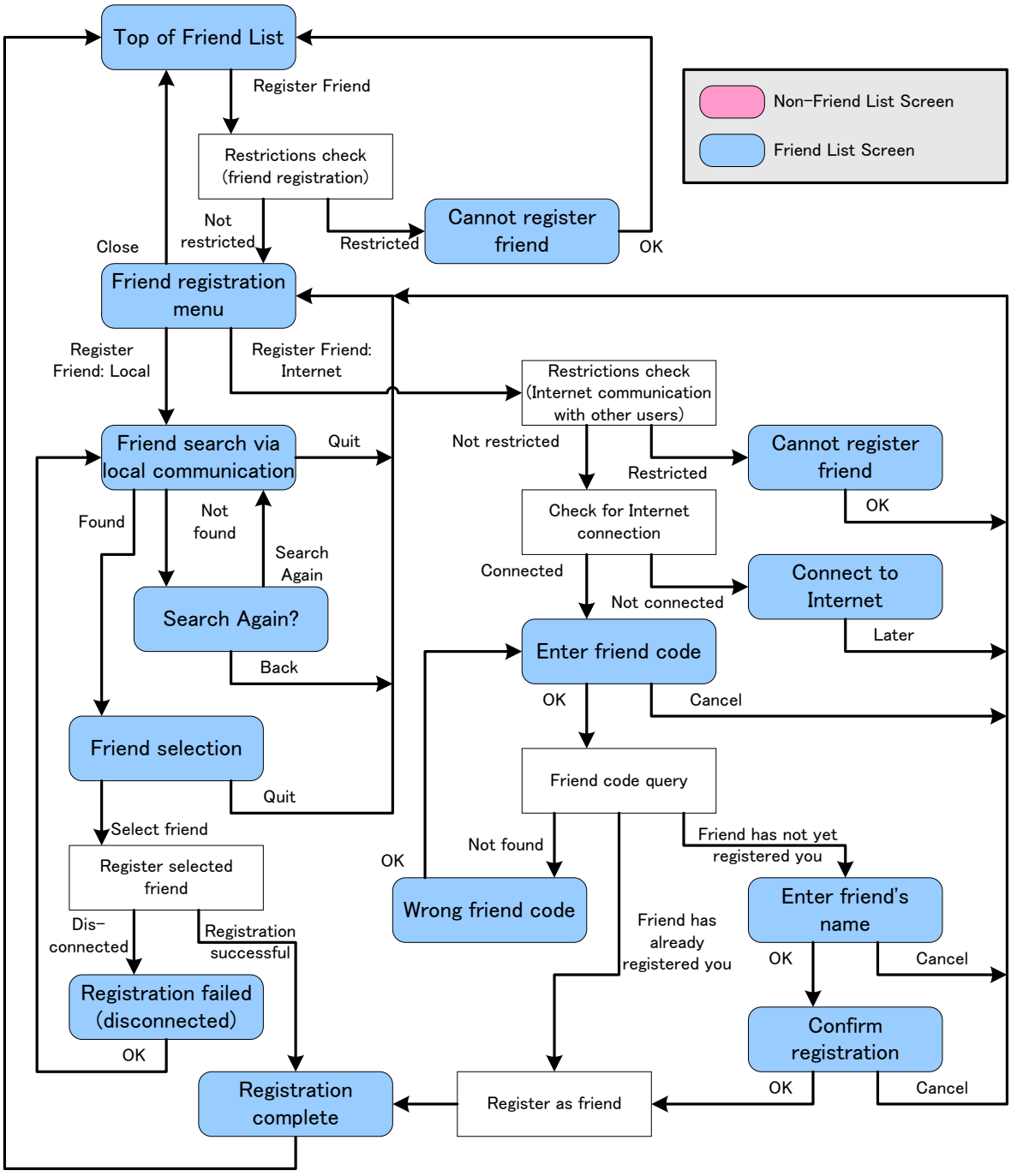
that is able to communicate with the application that the friend is playing. If the software detects that it has been launched from the friend list, it needs to move to the sequence in which a user joins in the ongoing game with the friend. See the *CTR-NEX Programming Manual: Server Services* for detailed instructions on use.

5.2.2 Registering Friends

You can register friends when the friend list is running by using either local communication or a friend code. You can also register friends from within an application. The two CTR systems exchange friend cards once you have registered each other as friends, but an Internet connection is required for you both to be officially recognized as friends on the server.

The following figure shows the flow for registering a friend from the friend list.

Figure 5-4 Friend Registration Flow

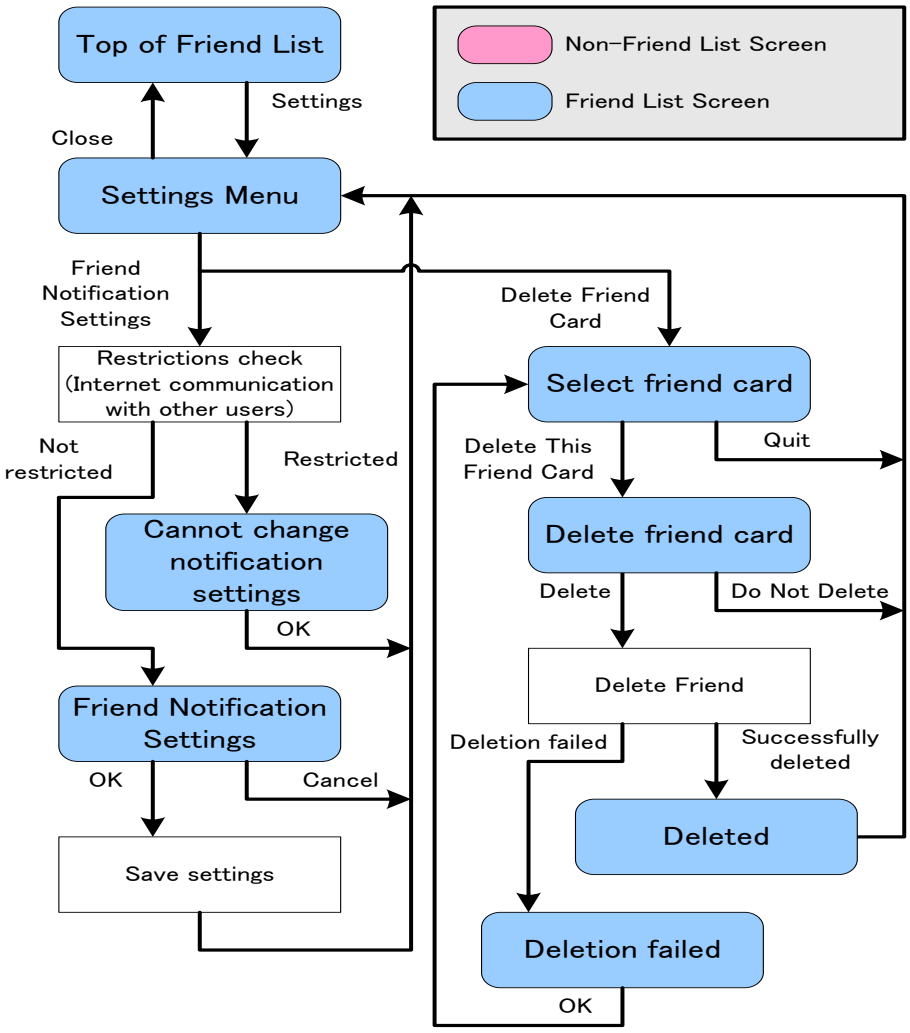


5.2.3 Configuring and Managing the Friend List

Pull up the friend list configuration menu by touching the **Settings** button on the main screen of the friend list. From here, you can configure your presence feature notifications and manage (i.e., delete) friend cards.

The following figure shows the flow for configuring and managing the friend list.

Figure 5-5 Friend List Configuration and Management Flow



5.2.4 Application Icons Shown in Friend List

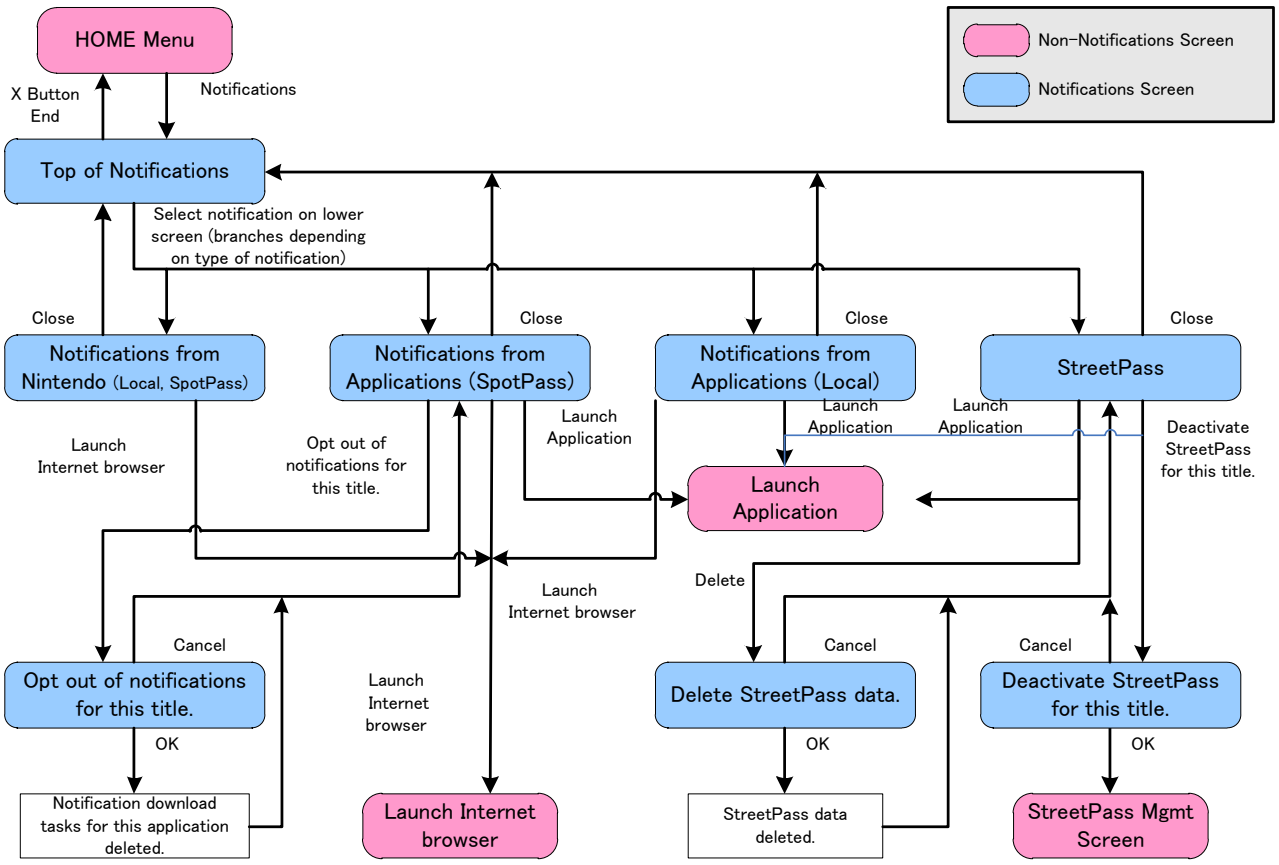
- If the icon (consisting of an image, title string, and possibly region-specific information) of the application that a friend is playing is not saved to the system, the icon is obtained from the icon database server when the friend's card is viewed on the Friend List after the friend notification is received.
- Application icons are saved to the system in the two following ways:
    - The application is started on that system (the icon is obtained from the application)
    - After receiving a "Favorite Title" notification from a friend, the card of that friend is viewed on the Friend List (the icon is obtained from the server).
- If the system's region is changed and a different region's application is started without first initializing the system (Format System Memory), both regions' icons will be saved to the system..
- Application icons are registered to the server when the applications pass Lotcheck.
- Icons for other regions are displayed only after the application for all regions pass Lotcheck.

5.3 Notifications

This applet allows users to view their SpotPass and StreetPass notifications. The notification LED turns on when new notifications arrive, and these can be displayed from the Notifications applet.

The Notifications applet screen transitions depend on the type of notification selected from the main screen of the applet, which is the screen displayed when the applet is launched from the HOME Menu.

Figure 5-6 Notifications Applet Flow



The main screen of the Notifications applet displays the number of unread notifications on the upper screen. The list on the lower screen displays notification titles and icons. Unread notifications are marked with an icon indicating their unread status. Notification icons are positioned to the right or left of the relevant title in the list, with StreetPass icons on the right and icons for other types of notification on the left for easy identification.

Touch a notification's title in the list to display its content on the lower screen. If the notification includes an image attachment, the upper screen displays this image, and if there is no image attachment, the upper screen displays the list of notifications.

The display layout for notification content also depends on the notification type.

The buttons shown will change as well, with each button's operation given below.

Table 5-2 Notification Types and Button Operations

Notification Type	Button Name	Description
Notifications from Nintendo	Close	Returns to the main screen of the Notifications applet.
	Launch Internet browser.	Launches the Internet browser and displays the page for the URL embedded in the notification.
Notifications from applications (SpotPass)	Opt out of notifications for this title.	Deletes all download tasks (only for notifications) for this application.
	Close	Returns to the main screen of the Notifications applet.
	Launch software	Launches the target application.
	Launch Internet browser.	Launches the Internet browser and displays the page for the URL embedded in the notification.
Notifications from applications (local)	Close	Returns to the notifications list.
	Launch software	Launches the target application.
	Launch Internet browser.	Launches the Internet browser and displays the page for the URL embedded in the notification.
StreetPass	Delete	Deletes the StreetPass data. All the notifications for StreetPass that are carried out using the same StreetPass box are combined into one notification. Consequently, deleting all StreetPass data for a notification removes that notification from the list.
	Deactivate StreetPass for this title.	This transitions to the StreetPass management screen and closes the currently paused application.
	Close	Returns to the main screen of the Notifications applet.
	Launch software	Launches the application that most recently accessed the target StreetPass box. If there is more than one such application, the card application has precedence.

You can also find out from the application that it has been launched from the notification applet. Furthermore, you can get the optional 8-byte data that had been set up in Notifications. See the samples and the *CTR-SDK Function Reference* for detailed instructions.

5.3.1 Informing Users of New Notifications

The CTR system informs users that new notifications have arrived by turning on the notification LED, and by adding a mark to the Notifications icon on the HOME Menu and to the appropriate application's icon. There is no way to detect that a new notification has arrived from within an application.

Depending on the type of notification, the notification LED might not turn on, or the menu icons might not display the notification mark.

Table 5-3 Notification LED and Icon Mark Display Depending on Notification Type

Notification Type	Notification LED	Notification Applet Icon Mark	Application Icon Mark
Notification received via SpotPass	Turns on	Displays	Does not display
Notification and data received via SpotPass	Turns on	Displays	Displays
Only data received via SpotPass	Does not turn on	Does not display	Application is selected
Immediate posting from application	Turns on	Displays	Does not display

5.3.2 Notification Specifications

You must include both a title to display in the list and body content to post a notification. You can also optionally attach an image to display on the upper screen. The applet uses the application's CTR icon for the icon displayed on the list.

- Notification title
  - Maximum of 31 characters on one line.
  - Display width of up to 17 of the widest character in the built-in font. (The character is “%” in Japan, the Americas, and Europe. In other regions, it might be a Hiragana, Kanji, or Hangul character.)
  - When the text exceeds the above maximum display width, the character size is reduced to as much as 80%. If the text still exceeds the maximum display width, the characters exceeding the width will not be displayed.
- Notification body content
  - UTF-16LE of up to 3000 characters, including the NULL terminator. LF is used only for newline characters
  - Display width of up to 18 of the widest character in the built-in font.
  - If the notification launches the Internet browser, the URL has a maximum of 1024 characters (UTF-8, including the NULL terminator) and the notification body content has a maximum of 3,000 characters minus half of the URL character count (UTF-16LE, including the NULL terminator).
- Image to be displayed on the upper screen.
  - Attachments are optional.
  - Only one image of 400×240 pixels, maximum 50 KB in JPEG or MPO formats.

5.3.3 Supplementary Notes

5.3.3.1 Display Bug in Notifications Titles

Symptom

As described in section 5.3.2, the text is either reduced in size or hidden for notification titles. When these size reductions occurred, there were errors in determining whether the maximum display width had been exceeded. Even when it was determined that it was not exceeded, the last character was sometimes not displayed.

Applicable Versions

This Notifications applet bug occurred from launch through the second network update. It has been fixed for the Notifications applet in System Updater 0.17.6 and beyond.

Action Plan

If this were the only symptom, we could prevent the bug by visually checking the notification title from the Notifications applet. The problem is that this bug occurs when the notifications, adjusted for their appearance on the subject in System Updater 0.17.6 and beyond, are also distributed to the Notifications applets in the second network update and earlier (such as when an application is updated in SDK 4.1 after creating a download application in SDK 2.4.2). In these cases, the last character may disappear from the notification that was distributed to the Notifications applet before this bug was fixed.

For this reason, we are planning to provide a tool that detects a bug when a certain notification is distributed to the Notifications applet in the versions of the second network update and earlier.

5.3.3.2 Text Display Bug in StreetPass Notifications

Symptom

Even when StreetPass notifications displayed in the Notifications applet were adjusted to show the entire text, the text would sometimes exceed the width when shown on the Notifications applet in other regions that have different built-in systems fonts. For example, the StreetPass notification that was adjusted to appear correctly on the Notifications applet for the Korean region would sometimes exceed the width in the European region as the character display width changed.

Note: “Exceed the width” means that what is assumed to be a single line string does not fit into the display pane and is wrapped in the middle.

Applicable Version

This Notifications applet bug occurred from launch through the second network update. It has been fixed for the Notifications applet in System Updater 0.17.6 and beyond by reducing the characters so that the notification text will not exceed the width. This bug does not occur in any version for the Chinese, Korean, and Taiwanese regions.

Action Plan

If this were the only symptom, there would be nothing to worry about in applications that use only CTR-SDK 4.1 and beyond. However, you need to be careful when StreetPass notifications that were adjusted to appear correctly in System Updater 0.17.6 or later are also distributed to the Notifications applet in the second network update or earlier (such as when an application is updated in SDK 4.1 after creating a download application in SDK 2.4.2). In these cases, the text of the StreetPass notifications may exceed the width if the text was distributed to the Notifications applet before this bug was fixed.

For this reason, we are planning to provide a tool that detects a bug when a certain notification is distributed to the Notifications applet in the versions of the second network update and earlier

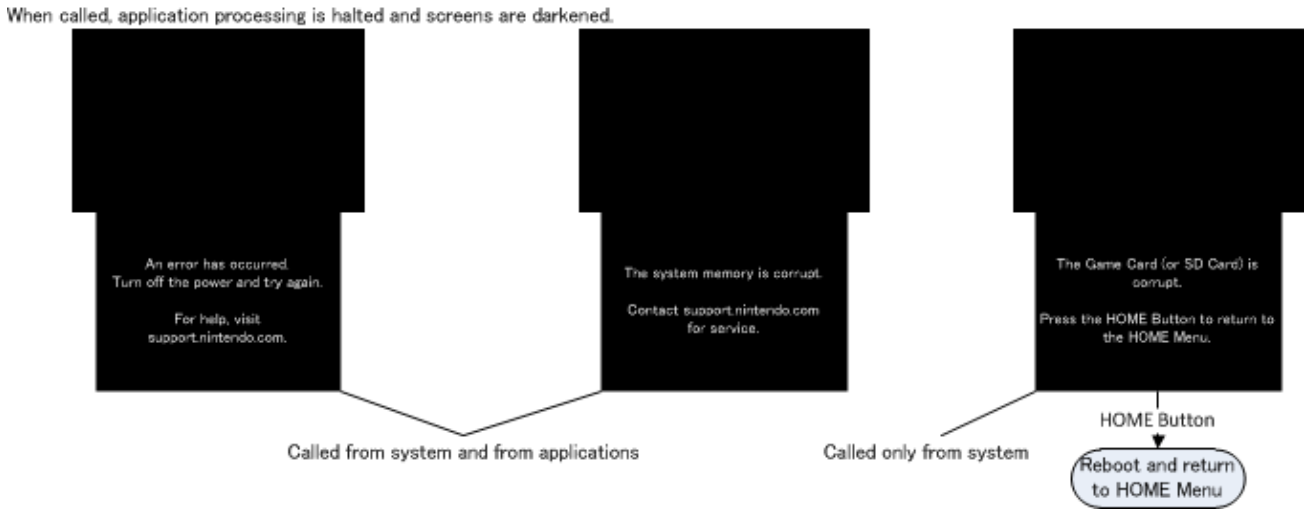
6 Other

These applets are always running in the background, and they can be called as necessary for such things as displaying messages common to all applications and the system. The section below describes the fatal error message display applet.

6.1 Fatal Error Message Display

Fatal errors on the CTR, such as those due to card removal, are handled automatically by the system. The figure below shows the flow for fatal error display.

Figure 6-1 Fatal Error Flow



Revision History

Version	Revision Date	Type of Revision	Description
1.6	2012/07/13	Changed	• 5.3.3.1 Display Bug in Notifications Titles Deleted the text that stated that this bug does not occur in any version for the Chinese, Korean, and Taiwanese regions," because there was a problem for the Korean region.
1.5	2012/04/26	Changed	• 4 Library Applets Added Circle Pad Pro Calibration Applet and EC Applet to the list. • 4.1.2.20 Display Language Table 4-34 was changed to describe the specifications instead of the program. • 4.2 Error/EULA Display Reorganized the description to explain the specifications only, as it seemed that overall the content was a functional reference. No new content was added, however content for confirming the functional reference and programming manual was omitted. • 5.2.1.1 Presence Feature Revised the explanation since it was only in Japan, US and Europe that "%" becomes the character with the maximum display width. • 5.2.1.2 Join-In Feature Revised to clarify the reference documentation for Join-in Feature. • 5.3 Notifications Added note that launch from notification applet can be detected. • 5.3.2 Notification Specifications Revised the explanation since it was only in Japan, US and Europe that "%" becomes the character with the maximum display width. Added note on display rules for notification titles.
		Added	• 4.4 Circle Pad Pro Calibration • 5.3.3 Supplementary Notes

Version	Revision Date	Type of Revision	Description
1.4	2012/03/14	Changed	• 4.1 Software Keyboard Added character sets used in the Chinese, Korean and Taiwanese regions. • 4.1.2.1 Keyboard Types Table 4-1: Added explanation for the Chinese, Korean and Taiwanese regions to Full Keyboard description. Table 4-2: Added columns for the Chinese, Korean and Taiwanese regions. Figures 4-4, 4-5: Added images for the Chinese, Korean and Taiwanese regions. Added Figures 4-7, 4-8, 4-9 and 4-10. Added note that kana layout can be used for Chinese region in addition to the Japanese region. Added Figure 4-12 and Table 4-5. Added Figures 4-16, 4-17 and 4-18 and Tables 4-9, 4-10 and 4-11. Noted that there is no mobile layout for the Chinese, Korean, and Taiwanese regions. • 4.1.2.13 Predictive Text Input Noted that the setting for switching predictive text input is disabled for the Chinese, Korean, and Taiwanese regions. • 4.1.2.18 Specifying QWERTY Layout on Launch Noted that the Hangul Dubeolsik layout always launches for the Korean region. • 4.1.2.20 Display Language Table 4-34: Added explanation about language specifications in China, Korea, and Taiwan. • 4.1.3.4 Region and Language Support Table 4-39: Added language support descriptions for the Chinese, Korean, and Taiwanese regions. • 4.2.1 Error Message Display Table 4-43: Added explanation about language specifications in China, Korea, and Taiwan. • 4.2.2 EULA Display Table 4-46: Added explanation about language specifications in China, Korea, and Taiwan.
1.3	2011/12/19	Changed	• 5.1 HOME Menu A feature was added to launch the Internet browser from the notification list, so a path was added to Figure 5-1 to reflect this added feature. • 5.3 Notifications The feature to delete all notifications was eliminated, so the description of this feature was deleted from Figure 5-6 and Table 5-2. A feature to launch the Internet browser was added, so a description of this feature was added to Figure 5-6 and Table 5-2. • 5.3.2 Notification Specifications Added the specification for notifications with embedded URLs.

Version	Revision Date	Type of Revision	Description
1.2	2011/10/07	Changed	• 1 Introduction Added description of System Applications • 4 Library Applets Added warnings regarding the Mii Selection Applet • 4.1 Software Keyboard Added explanation of character sets usable with the software keyboard
		Added	• 2 System Applications • 4.3 Photo Selector and Audio Selector • 5.2.4 Application Icons Displayed in the Friend List
1.1	2011/09/05	Changed	• 4.1.2.20 Display Language Added information to describe the additional features for specifying the display language. • 4.2.1 Error Message Display Revised Table 4-27 Software Reset Description to fix error in description of `upperScreenFlag`. Added to Table 4-37 Description of Standard Flags for the Applet (error message display) and following description consequent to addition of automatic text wrapping. • 4.2.2 EULA Display Revised Table 4-40 Description of Return Codes to fix error in description of *upperScreenFlag*. • 5.1 HOME Menu Added a path to launch an application from the friend list to Figure 5-1 Transitions Between the HOME Menu and Other Features consequent to the addition of the join-in feature. • 5.2.1 Friend Cards Added a path to launch an application from the friend list to Figure 5-3 Flow When Selecting a Friend Card consequent to the addition of the join-in feature. • 5.3 Notifications Added to Table 5-2 Notification Types and Button Operations because a description of the application-launching feature was missing.
		Added	5.2.1.2 Join-In Feature
1.0	2011/06/16	—	Initial version.