

Content Information Specifications

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1 Overview

Content Information

"Content information" indicates the icon images and title names that are necessary to display an application on the system software's home screen.

This document also explains the application software manuals that can be displayed from LiveArea™ and update information for patches (game updates).

Content Information Files

Content information is composed of the following files. Depending on the content, some of the files may be omitted.

- Still image icon (still-image file)
- Title name (text data) * Multilingual support
- Shortened title name (text data) * Multilingual support
- Start-up image (still-image file)
- Software manual (still-image file) * Multilingual support
- Update information (xml text file) * Multilingual support

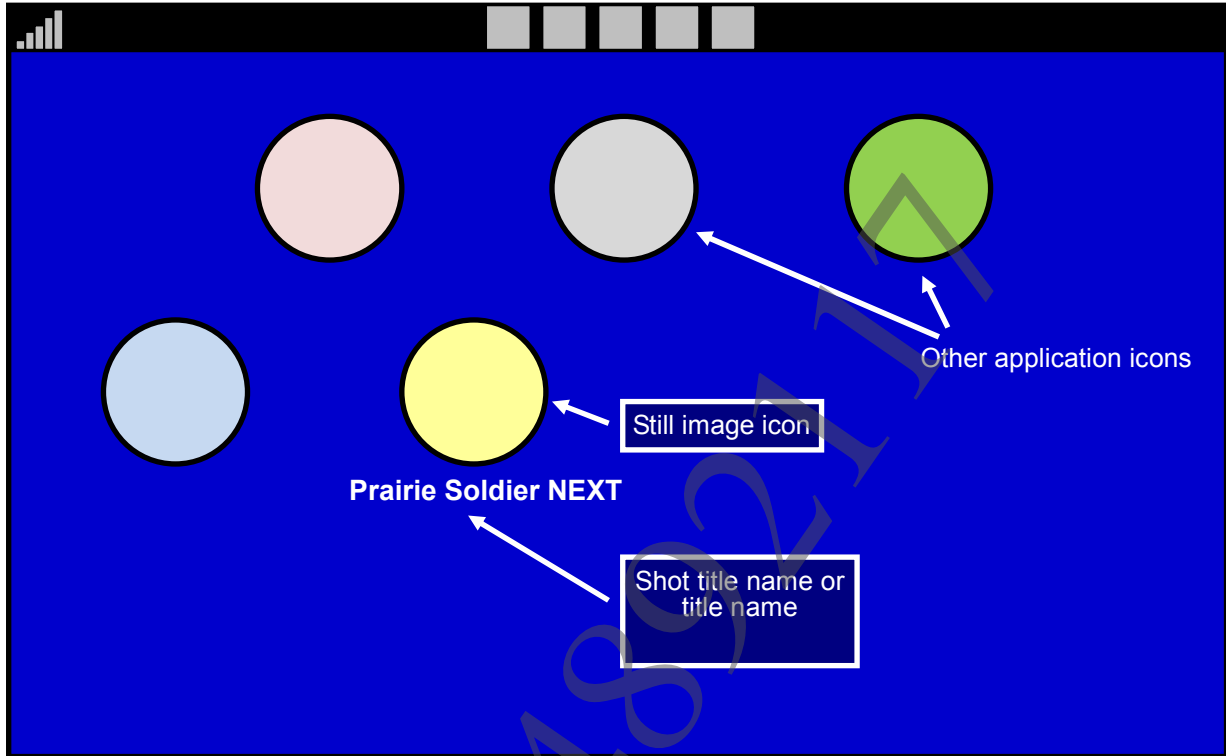
Multilingual support

Content information for multilingual support consists of a file for each language. The correct file will be displayed according to the system software language settings.

2 On-screen Configuration

Content information is placed on the system software's home screen as follows.

Figure 1 Content Information of Application: Home Screen



Note

The placement of icons and title name is not guaranteed to be permanent. Design them to be versatile with regard to their relative positions to each other.

3 Still Image Icon

Applicable Content

This is used as the texture image for application icons displayed on the home screen.

This file is required and must be created.

Image Size

128 x 128 pixels

Image Format

PNG-24bit

256-color index color must be used. Do not use the interlaced format.

File Size

32 KiB

File Name

icon0.png

File Creation Tool

Use commercially available image-editing applications.

Depending on the image-editing application, information other than data required for display may also be included. This may cause an error upon attempting to create a package. Make sure not to include information other than data necessary for display.

Precautions Concerning Images

Image Non-display Area

Still-image icon files are pasted as textures on spherical objects (compressed along the front-back direction of the screen) on the home screen. For this reason, note that the four corners of the image will contain areas that are not displayed. Also, due to the spherical shape, the perimeter of the objects is curved, causing the images that are pasted on them to be distorted. Make adjustments while checking the icons on the home screen.

Transparent Colors

Transparent colors are not supported for a still-image icon. Even if a transparent color is used in the still-image icon file, it will be displayed as a non-transparent color on the system software - do not use transparent colors.

Multilingual Support

For the PlayStation®3, multilingual support was available for still image icon files, but this is not the case for PlayStation®Vita. This is because, considering that the display area of icons in PlayStation®Vita is much smaller than in the PlayStation®3, a feature to switch among different languages would not be useful. Since multilingual icons are not supported, writing Arabic numbers (such as for titles in a series) on icon images would not present any problem, but we recommend avoiding inserting title names using the characters of any specific language.

4 Title Name

Applicable Content

The title name is text data that indicates the title name of the content. In terms of settings, please make sure to note the correct product name. Also check for the existence (or lack of) trademarks and registered trademarks.

A default title name is required. Title names for multilingual support are optional.

Note Regarding Display

If the title name is too long for the display area, the excess will be represented as "...". Depending on the displayed section, a linefeed will be replaced by a half-width space. Although it is guaranteed that the entire title name will be displayed without being abbreviated on the content information screen transitioned to from the home screen, if the title name does not fit the screen's width, a new line will be started at an appropriate position.

Size

128 bytes

Format

UTF-8

Up to 3 lines (up to 2 line feeds). Use 0x0a for the line feed code.

Do not include a byte order mark (BOM).

Settings

The title name is included in the parameter file param.sfo, and is not a separate file. For information regarding setting the title name, refer to the "Param File Editor User's Guide" document included in the Publishing Tools.

The following languages can be set for the "Title Name":

Title Name
Default title name *required
Japanese
English (United States)
French
Spanish
German
Italian
Dutch
Portuguese (Portugal)
Russian
Korean
Chinese (traditional)
Chinese (simplified)
Finnish
Swedish
Danish
Norwegian
Polish
Portuguese (Brazil)
English (United Kingdom)
Turkish

5 Shortened Title Name

Applicable Content

Similar to the title name of the previous chapter, shortened title names are text information representing content title names. The maximum string length differs from that of the title name.

On the home screen, title names are displayed together with content icons, but the area for title name display is limited. If display of all title names is attempted, most applications will be unable to display all titles, instead abbreviating them as shown in the following image:



Considering that title names would have to be abbreviated using "...", shortened title names are provided to enable separate setting of shorter title names for the home screen. The correct product name with little omission as possible is required as the title name described in the previous chapter; however, for the shortened title name, you may shorten the actual title name by summarizing it, or using its initials.

A default shortened title name is required. It is possible to switch among multiple languages, and multilingual shortened title names can be set arbitrarily.

Note Regarding Display

For the character count of shortened title names, aim for around 1 line of 8 full-width Japanese characters on the home screen. This standard would be different in the case of proportional characters, such as alphabetic characters; therefore, decide the shortened title name while checking the home screen.

In addition to on the home screen, the shortened title name will be used when the application name is displayed in a list. Depending on the displayed section, the excess section of the shortened title name will be represented as "...". A linefeed may be replaced and displayed as a half-width space; however, avoid setting shortened title names that would be abbreviated with "..." on the home screen.

Size

52 bytes

Format

UTF-8

Up to 2 lines (up to 1 line feed). Use 0x0a for the line feed code.

Do not include a byte order mark (BOM).

Settings

The shortened title name is included in the parameter file param.sfo, and is not a separate file. For information regarding setting the title name, refer to the "Param File Editor User's Guide" document included in the Publishing Tools.

The following languages can be set for the "Shortened Title Name":

Shortened Title Name
Default title name *required
Japanese
English (United States)
French
Spanish
German
Italian
Dutch
Portuguese (Portugal)
Russian
Korean
Chinese (traditional)
Chinese (simplified)
Finnish
Swedish
Danish
Norwegian
Polish
Portuguese (Brazil)
English (United Kingdom)
Turkish

6 Start-up Image

Applicable Content

The system will immediately display an image when the gate is tapped from LiveArea™. The image used at that time is the start-up image. From the moment it is displayed with a gate tap, the start-up image will remain displayed until immediately before the system executes the start-up file (eboot.bin) and the application displays its screen. It can also be used as a splash screen for application start-up.

Since this is an essential file, be sure to create it.

Image Size

960 x 544 pixels

Image Format

PNG-24bit

256-color index color must be used. Do not use the interlaced format.

File Size

600 KiB

File Name

pic0.png

File Creation Tool

Use commercially available image-editing applications.

Depending on the image-editing application, information other than data required for display may also be included. This may cause an error upon attempting to create a package. Make sure not to include information other than data necessary for display.

Precautions Concerning Images

Display Time

The duration for which the start-up image is displayed is obtained by adding the time required by the system to start up the application, and the time from application start-up to the beginning of rendering. Given that the time required by the system varies depending on the operating status of other applications that are running, as well as on future upgrades of the system software, it is not possible to display the start-up image for a predetermined, given period of time. Also, avoid display causing the beginning of rendering by the application to be delayed, as it will result in delaying the start-up image. Accordingly, it is necessary to ensure that the start-up image does not pose a problem even if the display time changes.

Multilingual Support

Multilingual support is not available for the screen at start-up. As mentioned in the above notes on "Display Time", display time is not always fixed, either. Therefore, images with text descriptions other than the title name are not suitable for the start-up image.

7 Software Manual

Applicable Content

Application software manuals can be displayed from LiveArea™. Software manuals can be referenced irrespective of whether the game has not been started yet or is running.

Multilingual support is available for software manuals.

Image Size

For each page, it is possible to set the following three types of horizontal x vertical pixel count. Images are enlarged to match screen width (960 pixels) while maintaining their aspect ratio.

- 960 x 272 - 544 pixels
Since width is the same size as the screen, images are not enlarged. When creating new software manual images, using this size will enable dot by dot display.
- 544 x 480 - 960 pixels
Given that the entire image is enlarged to match width enlargement to 960 pixels, dot by dot display will not be possible. Use this size when you wish to use data from the paper instruction manual, and do not need to display the instruction manual dot by dot. This image size allows for a smaller software manual file size than the 960 x 272 - 544 pixel image size.
- 480 x 272 - 960 pixels
Use this size when an even lower resolution than 544 x 480 - 960 pixels is sufficient. This image size allows for the smallest possible software manual file size.

Image Format

PNG-24bit

256-color index color can also be used. Do not use the interlaced format.

File Size

No restrictions.

File Name

For one language, you can create up to 999 pages (001.png to 999.png). It is necessary to create the pages consecutively like 001.png, 002.png, 003.png. Creating the pages with some pages skipped (e.g. 001.png, 003.png, 004.png) will result in a format error. For setting methods by language, refer to the "Package Generator User's Guide" document included in the Publishing Tools.

File Creation Tool

Use commercially available image-editing applications.

Notes on Image Display Speed

Since the images of software manual change each time the user turns over the pages, it is required to display the images fast. While we will strive to improve the image decoding speed through system software, please consider the following points for achieving higher display speed for the present.

- Reduce the size of the image files by using index color for PNG images. Although the number of colors is limited to 256, this method is very effective.
- Reduce the size of the image files by decreasing the number of pixels (horizontal x vertical pixels) as much as possible within a given size. When it is not required to display the image dot by dot, set the horizontal size to 544 or 480 pixels.

8 Update Information

Applicable Content

Update information is used to display the details of the update when a game is updated with a patch (game update). With update information, it is possible to check the updates contained by a patch prior to download, and to browse the details of the updates relating to all installed patches from the "Update History" of the contents accessed from the home screen.

Update information is in the form of text files written in xml, and supports switching among multiple languages.

Update information is only compatible with patch packages. Patch packages must always contain update information.

File Name

File Name	Description
changeinfo.xml	Default file *required
changeinfo_00.xml	Japanese
changeinfo_01.xml	English (United States)
changeinfo_02.xml	French
changeinfo_03.xml	Spanish
changeinfo_04.xml	German
changeinfo_05.xml	Italian
changeinfo_06.xml	Dutch
changeinfo_07.xml	Portuguese (Portugal)
changeinfo_08.xml	Russian
changeinfo_09.xml	Korean
changeinfo_10.xml	Chinese (traditional)
changeinfo_11.xml	Chinese (simplified)
changeinfo_12.xml	Finnish
changeinfo_13.xml	Swedish
changeinfo_14.xml	Danish
changeinfo_15.xml	Norwegian
changeinfo_16.xml	Polish
changeinfo_17.xml	Portuguese (Brazil)
changeinfo_18.xml	English (United Kingdom)
changeinfo_19.xml	Turkish

File Format - Tag Reference

<changeinfo> Element

The Highest element must be <changeinfo>

The <changeinfo> element must contain one or more <changes> elements.

<changes> Element

This element represents the update information for one version.

Specify the application version (APP_VER) as the attribute value.

Attribute Name	Value	Required/Optional	Example
app_ver	Application version (APP_VER) "XX.YY" (XX and YY are [00-99])	Required	01.01

Writing Update Information

Write the contents to be displayed as update information in the text within the <changes> element. The text must be enclosed in the CDATA section.

Update Information Tag Reference

Below is a list of the supported HTML tags.

Tag Name	Description	Attribute Value	Notes
	Bold	None	
 	Line break	None	
	Font attribute	color="color" Method for specifying color "#rrggbb" "black" #000000 "gray" #808080 "silver" #c0c0c0 "white" #ffffff "red" #ff0000 "yellow" #ffff00 "lime" #00ff00 "aqua" #00ffff "blue" #0000ff "fuchsia" #ff00ff "maroon" #800000 "olive" #808000 "green" #008000 "teal" #008080 "navy" #000080 "purple" #800080 "orange" #ffa500 size="size" Value in the 1 - 7 range Relative value specification is not supported	
<h1> - <h6>	Heading	None	
 	List	None	All items are marked with " • "
<p>	Paragraph	None	
	Bold	None	
<table>	Table	None	Word wrap is only enabled for the last column
<tr>	Table	None	
<td>	Table	width = "width" % specification supported colspan="number of cells connected horizontally"	Vertical alignment fixed to top (equivalent to valign="top")

Below are the available entity references:

Entity References	Value
<	<
>	>
&	&
'	'
"	"
 	No-Brake Space
®	®
©	©
™	™

File Size

Update information files (changeinfo*.xml) can be up to 64 kilobytes.

Multilingual Support

Displaying update information offers multilingual support. Provided that a file for each language is available as update information (changeinfo_00.xml - changeinfo_19.xml), it will be displayed. If it is not available, the default file will be displayed.

Sample

```
<?xml version="1.0" encoding="UTF-8"?>
<changeinfo>
  <changes app_ver="01.01">
    <![CDATA[
      Following features are added.
      <ul>
        <li> ... </li>
        <li> ... </li>
        <li> ... </li>
      </ul>
    ]]>
  </changes>
</changeinfo>
```

Layout of Update Information Text

It is possible to browse the update information in multiple locations of system software, but the text layout may vary for each location. For example, the text displayed in one line in a location may be displayed in two lines in another location due to the difference of the width size of the display area. When creating the text file of update information, do not assume that the text layout is always the same for all locations.

9 Multilingual Support

Multilingual support is available for title name and shortened title name. Multilingual support is synchronized with the system software language settings, and the information corresponding to these settings will be displayed.

Overview

Each language has a code number in the system software language settings.

Number	Language
0	Japanese
1	English (United States)
2	French
3	Spanish
4	German
5	Italian
6	Dutch
7	Portuguese (Portugal)
8	Russian
9	Korean
10	Chinese (traditional)
11	Chinese (simplified)
12	Finnish
13	Swedish
14	Danish
15	Norwegian
16	Polish
17	Portuguese (Brazil)
18	English (United Kingdom)
19	Turkish

The procedure for the system software to display the correct content information is as follows.

- (1) Obtain the language code from language settings
- (2) Check if the title name of the language code exists. If it does, use that title name to display and this ends the procedure.
- (3) If there is no corresponding title name for the language code, use the default title name to display and this ends the procedure.

Default Settings

Multilingual support is optional, therefore multilingual support data is optional

When multilingual support files will be created, the default file must always be created. For example, it is forbidden to have a German title name without a default title name. This is because a default title name will be necessary when the setting is to a language other than German with the system software

Even if languages data exist for all the languages currently defined (total 20), the default data is still required even though it will not be used. It will be required in future updates when more languages are supported.

Default Language

Any language can be chosen for the default language. Set the language appropriate for the game specifications in view of multilingual support.

In the following cases, it is necessary to pay attention to default information.

If the "Japanese" title name is set as default, and the "English (United States)" title name for multilingual support, the "Japanese" title name will be displayed at all times, except when the system software language is set to "English (United States)". If the system software language is set to "English (United Kingdom)", the "Japanese" title name will still be displayed.

In the system software, "English (United States)" and "English (United Kingdom)" are treated as two completely different languages. Although the "English (United Kingdom)" title name will presumably be closer to the "English (United States)" title name than the "Japanese" title name, system software will completely ignore such differences. In this case, set the "English (United States)" title name as default, and the "Japanese" title name for multilingual support. In this way, if the system software language is set to "English (United Kingdom)", the default title name of "English (United States)" will be displayed.

10 Summary of Content Information Files/Parameters

Content information is composed of the following files and parameters.

Table 1 Content Information Files and Parameters

Name	File Name	Format	Multilingual Support	Required/Optional
Still image icon	icon0.png	PNG-24bit 256-color index color only 128 x 128 pixels Size of 32 KiB or less	No	Required
Title name	(included in PARAM.SFO)	UTF-8 128 bytes	Yes	Required
Shortened title name	(included in PARAM.SFO)	UTF-8 52 bytes	Yes	Required
Start-up image	pic0.png	PNG-24bit 256-color index color only 960 x 544 pixels Size of 600 KiB or less	No	Required
Software manual	001.png - 999.png	PNG-24bit Also support 256-color index color 960 x 272 - 544 pixels 544 x 480 - 960 pixels 480 x 272 - 960 pixels (one of the above image sizes can be chosen for each page)	Yes	Optional
Update information	changeinfo.xml	xml text	Yes	Required for patches

*Do not use the interlaced format for any of the PNG files.