PSP™ (PlayStation®Portable) Custom Theme Creation Guidelines

Version 3.80

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Table of Contents

1 About This Document 5

Overview 5

2 Data That Can be Customized 6

Category Icons (Horizontal List) 6

First Level Icons (First Level Vertical List) 6

Second Level Icons (Second Level Vertical List) 8

Wallpaper 8

Theme Color 8

Preview 8

List of Customizable Icons 9

3 Image Sizes and Formats 10

Category Icons (Horizontal List) 10

First Level Icons (First Level Vertical List) 10

Second Level Icons (Second Level Vertical List) 11

Wallpaper 11

Theme Color 12

Preview 12

4 Notes on Icon Design 14

Icon Data 14

Focus Data 15

5 Setting Custom Themes 17

6 Custom Theme Creation Tool 19

Information Tab 19

Wallpaper Tab 20

Category Icons Tab 21

First Level Icons Tab 22

Second Level Icons Tab 23

Others Tab 24

File Menu 24

Help Menu 24

7 Using the PSP™ to Download Custom Theme Data 25

Meta Information and Download Processing 25

Uploading Custom Theme Data to the Server 26

8 Appendix 27

Maximum Size 27

Compatibility 27

1 About This Document

Overview

This document contains information and guidelines for creating custom themes and customized icons for the XMB™ that is part of PSP™ system software.
Specifically, the following topics are covered.

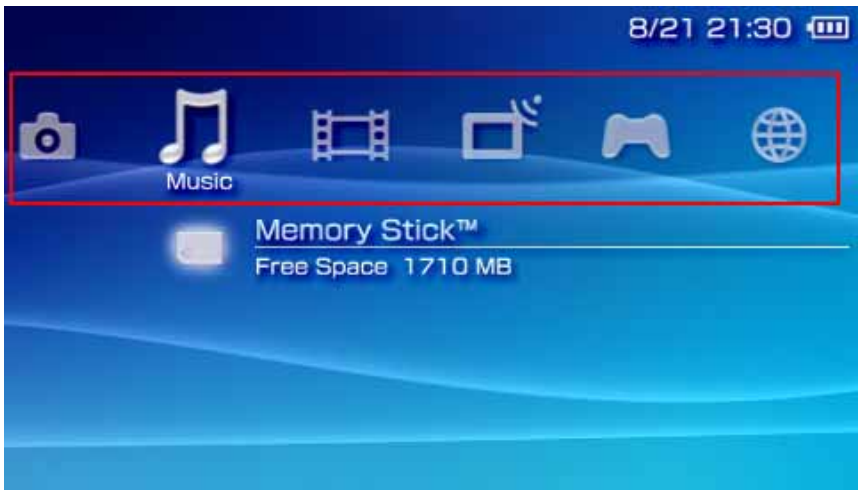
- Types of icons that can be customized
- Image size and format
- Additional data besides icons that are needed
- Other information

2 Data That Can be Customized

The following data can be customized using the custom theme function.

Category Icons (Horizontal List)

Category icons indicate categories that are arranged horizontally in a row.



The following eight types of category icons can be specified.

Category Type	Notes
Network	
Game	
TV	Only for systems sold in Japan and PSP-2000 systems
Video	
Music	
Photo	
Settings	
Default	Default icons are prepared in advance to support additional icons that may be added in a future system update. When only a default icon is specified, all icons can be displayed to be the same.

First Level Icons (First Level Vertical List)

The first level icons are displayed vertically in a column when a category icon is selected.

The following first level icons can be set.

Category	First Level
Network	Online Instruction Manuals
	Remote Play
	Internet Radio
	RSS Channel
	Internet Browser
Game	Game Sharing
	Saved Data Management
	UMD™ (*)
	PSP™ Update
	Memory Stick™ (*)
Video	UMD™ (*)
	Memory Stick™ (*)
Music	UMD™ (*)
	Memory Stick™ (*)
Photo	Camera
	Memory Stick™ (*)
Settings	Network Update
	USB Connection
	Video Settings
	Photo Settings
	System Settings
	Theme Settings
	Date & Time Settings
	Power Save Settings
	External Display Settings (PSP-2000 only)
	Sound Settings
	Security Settings
	RSS Channel Settings
	Network Settings
Other	Default

(*) UMD™ and Memory Stick™ icons are customized one at a time regardless of the category.

Second Level Icons (Second Level Vertical List)

The second level icons are displayed vertically in a column and to the right of the first level icons when a first level icon is selected. You can use a custom theme to customize the second level icons of the Settings category (wrench icons in the figure below).

Wallpaper

You can specify wallpaper that is to be affixed to the background.

Theme Color

One of twelve theme colors can be specified by selecting [Settings] > [Theme Settings] > [Theme], enabling you to set a specific background color that is best suited for a particular custom theme.
You can also specify no theme color.

Preview

This is used to specify icons and images that will be displayed when the custom theme is selected.

List of Customizable Icons

The following icons can be customized.

Category	First Level	Second Level	Display Name
Network			Online Instruction Manuals
			Remote Play
			Internet Radio
			RSS Channel
			Internet Browser
Game			Game Sharing
			Saved Data Management
			UMD™
			PSP™ Update
			Memory Stick™
TV			
Video			UMD™
			Memory Stick™
Music			UMD™
			Memory Stick™
Photo			Camera
			Memory Stick™
Settings			Network Update
			USB Connection
			Video Settings
			Photo Settings
			System Settings
			Theme Settings
			Date & Time Settings
			Power Save Settings
			External Display Settings
			Sound Settings
			Security Settings
			RSS Channel Settings
			Network Settings

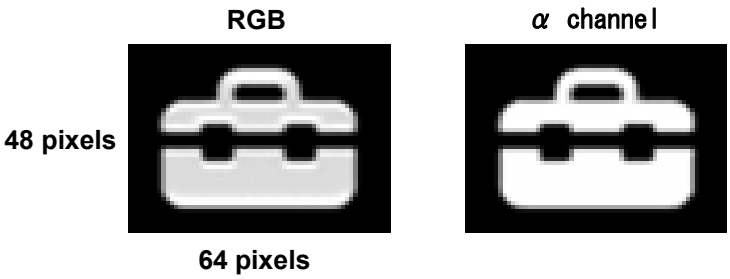
3 Image Sizes and Formats

This section presents detailed information concerning the image sizes and formats that are used in a custom theme.

Category Icons (Horizontal List)

The image size and format for category icons are as follows.

Image size	64 x 48 pixels
Image format	256-color 32-bit CLUT (α channel enabled) PNG/TGA/GIM file

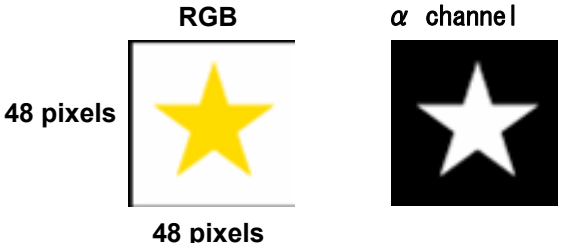


First Level Icons (First Level Vertical List)

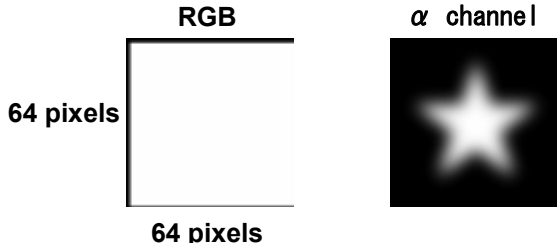
The image size and format for first level icons are as follows.

Image size	Icon body	48 x 48 pixels
	Icon focus	64 x 64 pixels
Image format	256-color 32-bit CLUT (α channel enabled) PNG/TGA/GIM file	

Icon body



Icon focus

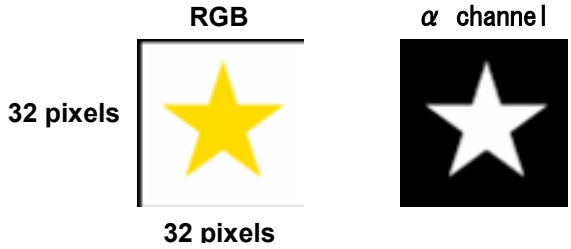


Second Level Icons (Second Level Vertical List)

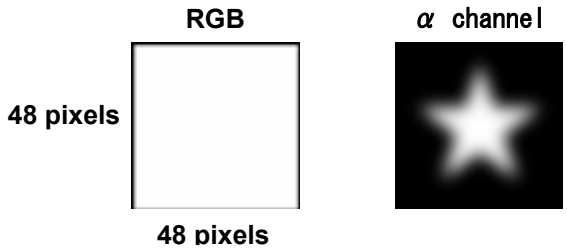
The image size and format for second level icons are as follows.

Image size	Icon body	32 x 32 pixels
	Icon focus	48 x 48 pixels
Image format	256-color 32-bit CLUT (α channel enabled) PNG/TGA/GIM file	

Icon body



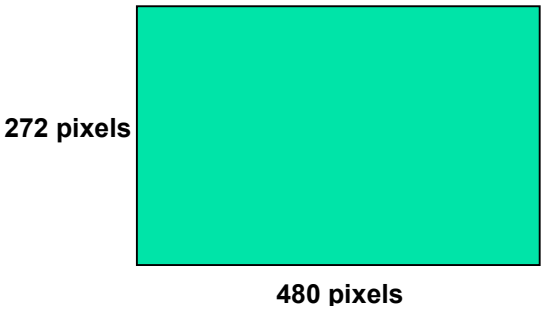
Icon focus



Wallpaper

The image size and format for the wallpaper are as follows.

Image size	480 x 272 pixels
Image format	24-bit color RLE uncompressed bitmap file



Theme Color

The theme colors that can be selected are shown below.

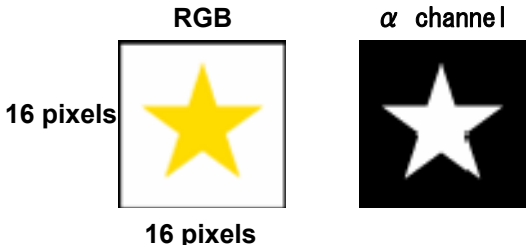
Theme Color	Number
Change monthly	0
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
	11
	12

Preview

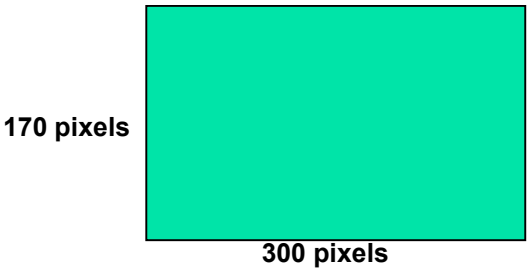
The image size and format for the preview are as follows.

Image size	Preview icon	16 x 16 pixels
	Preview image	300 x 170 pixels
Image format	Preview icon	PNG/TGA/GIM file 256-color 32-bit CLUT (α channel enabled)
	Preview image	24-bit color RLE uncompressed bitmap file

Preview icon



Preview image



4 Notes on Icon Design

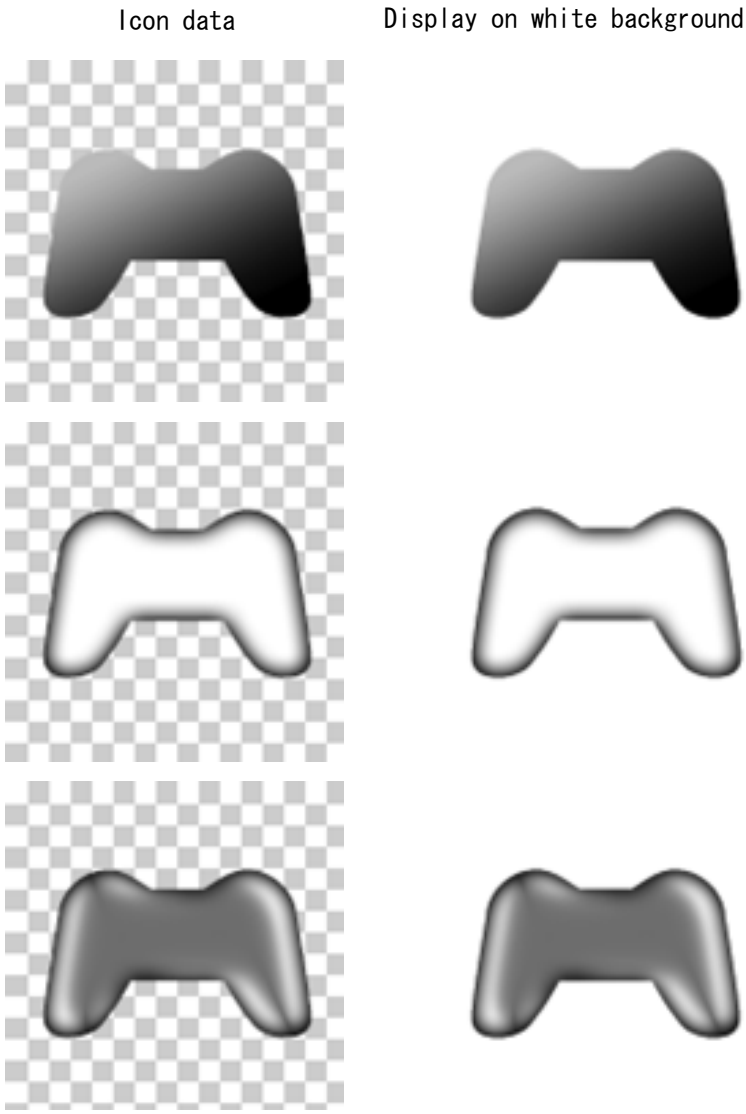
This section contains notes on icon design.

Icon Data

When creating an icon, avoid painting the icon with a single color. This is because the user can set any arbitrary background color using the wallpaper setting function. Icons should be designed with gradations or borders so they can be easily distinguished from arbitrary background images.
For example, with the following single-color icon data, the icon will not be visible if the background is set to white.

Icon data　　Display on white background

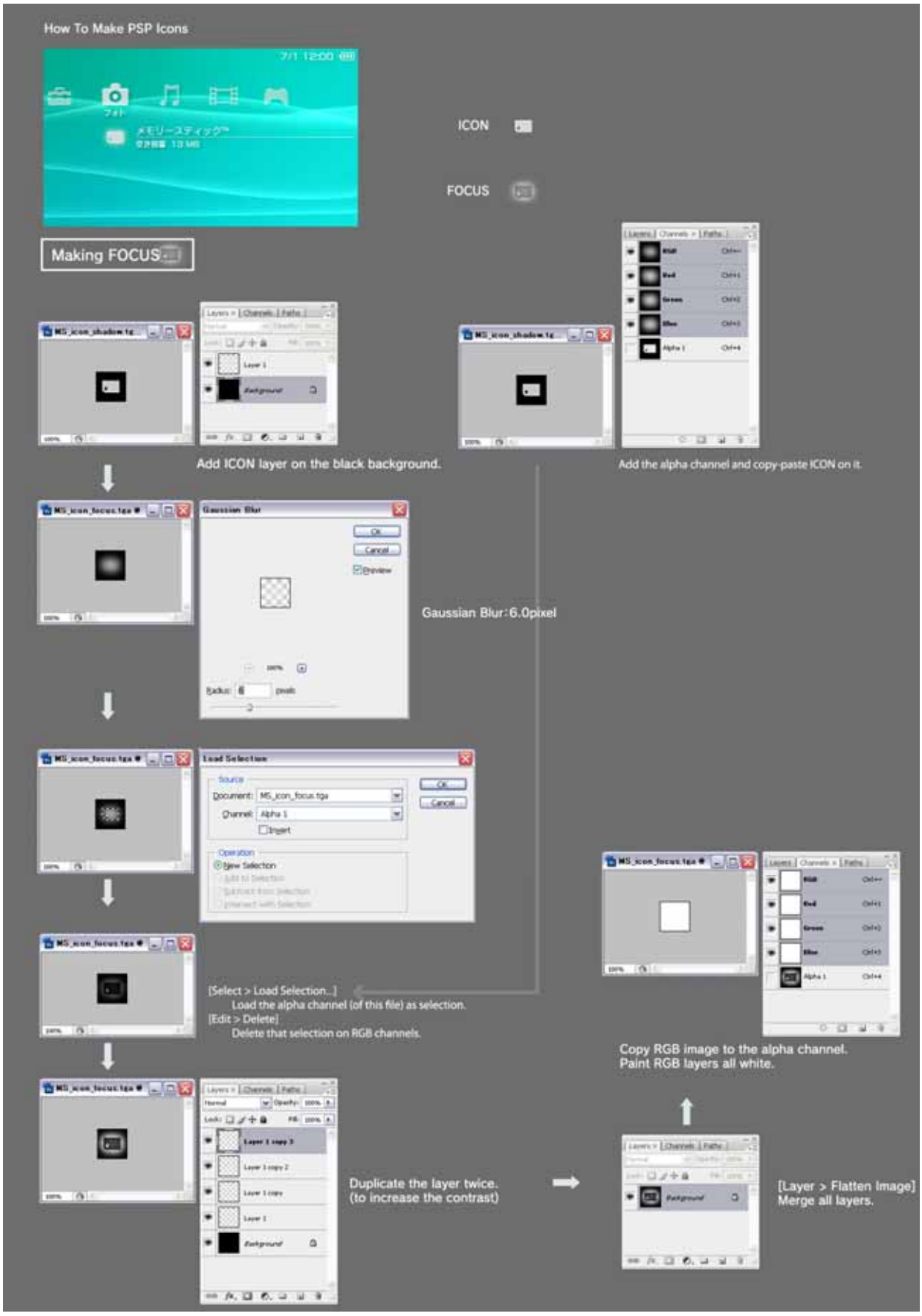
In this case, you can make the display easier to see by using gradations and borders as shown below.



Note that when using icon data provided by the system software for your design, you cannot change its original shape or meaning.

Focus Data

When you create icon data, you also need to create focus data which is used when the icon receives focus. In the standard theme that is part of system software, focus has been designed in a consistent manner so that the item receiving the focus will appear to light up in white. If you create focus data with a similar appearance, it will be easier for the user to recognize that the focus is on that icon.
The following example shows how Photoshop can be used to create illuminated focus data.

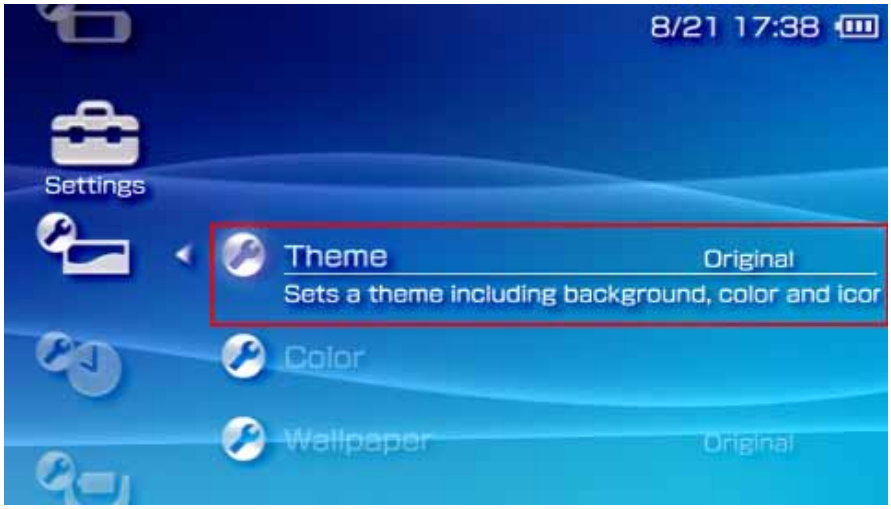

How To Make PSP Icons
ICON
FOCUS
Making FOCUS
Add ICON layer on the black background.
Add the alpha channel and copy-paste ICON on it.
Gaussian Blur: 6.0pixel
[Select > Load Selection...]
Load the alpha channel (of this file) as selection.
[Edit > Delete]
Delete that selection on RGB channels.
Copy RGB image to the alpha channel.
Paint RGB layers all white.
Duplicate the layer twice.
(to increase the contrast)
[Layer > Flatten Image]
Merge all layers.

5 Setting Custom Themes

This section explains how to set a custom theme on the PSP™ system.

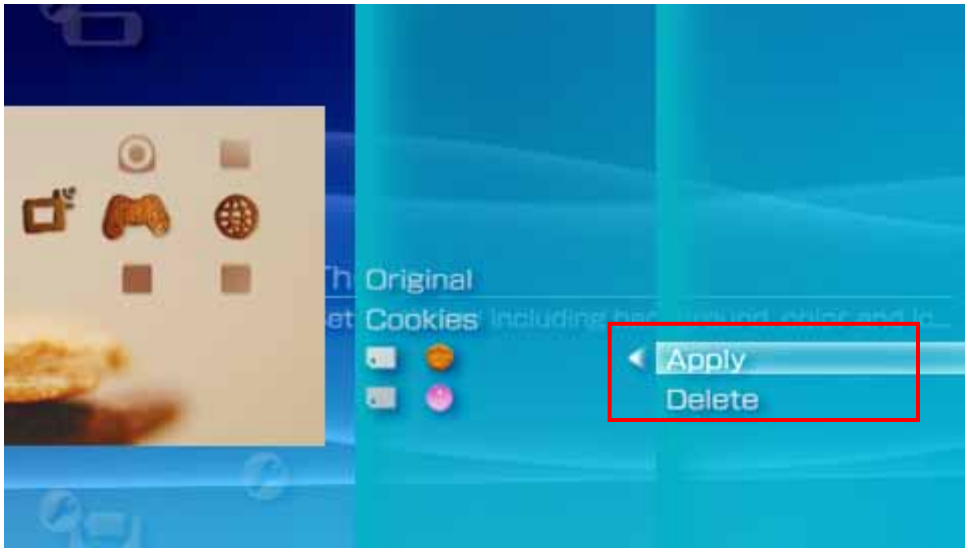
Select Theme Settings under the Settings category to set a custom theme.

Select Theme under Theme Settings.



The word "Original" and preview icons of theme files that are saved under /PSP/THEME on the Memory Stick™ are displayed on the right side of the screen. "Original" means that these are standard icons used in the PSP™ system.
A preview image of the selected custom theme is displayed in the center of the screen.

You can change the custom theme by selecting a custom theme from the list and then selecting Apply. If you select Delete, the selected theme file will be deleted from the Memory Stick™.

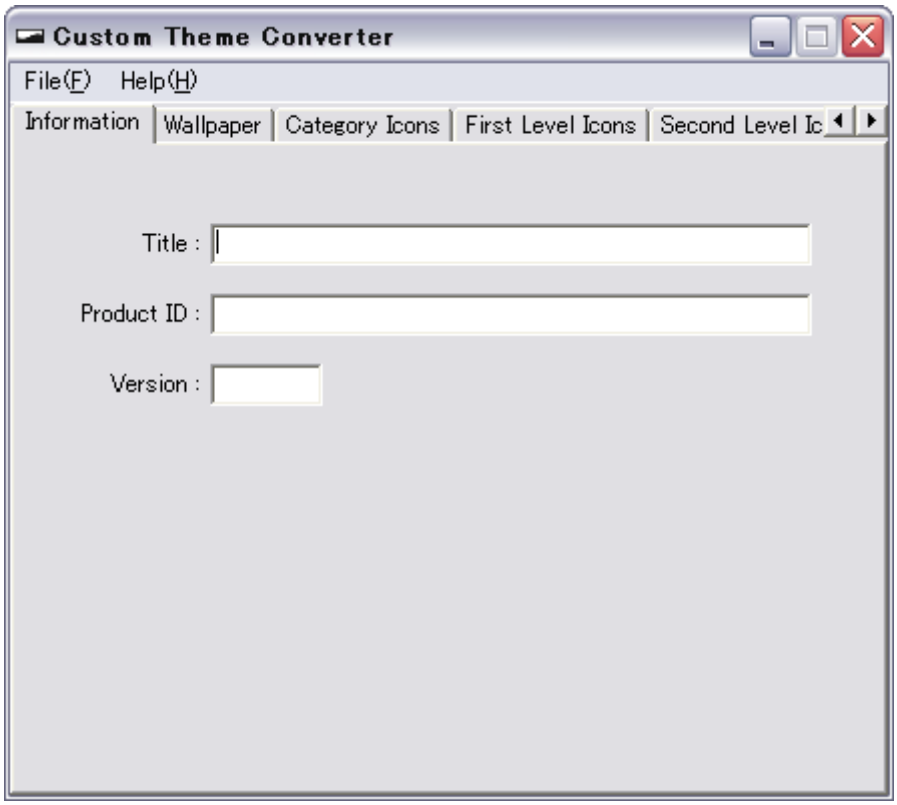


6 Custom Theme Creation Tool

This section describes the Custom Theme Converter (themeconv.exe), which is a tool for creating custom themes.

Information Tab

The following items can be entered on the Information tab.



Item	Description
Title	Title information (max. 128 byte UTF-8 string)
Product ID	Product ID number (max. 48 bytes) Usable characters: half-width alphanumerics, hyphen ("-"), and underscore ("_")
Version	Theme version (max. 8 bytes) A combination of at most 3 numbers from 0 to 99 separated by periods (".")

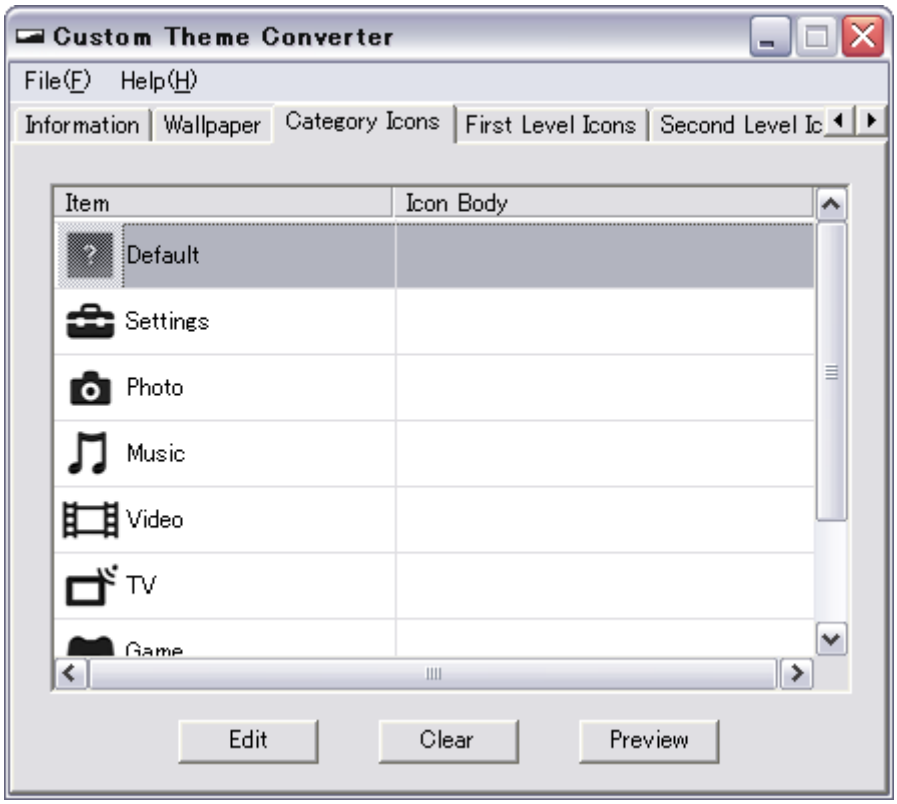
For details about how to use the Information tab, see Chapter 7, "Using the PSP™ to Download Custom Theme Data."

Wallpaper Tab

This tab is used to set the image file that will be used for wallpaper. By clicking on the preview button, the wallpaper setting can be previewed. For information about files that can be set as wallpaper, see Chapter 3, "Image Sizes and Formats."

Category Icons Tab

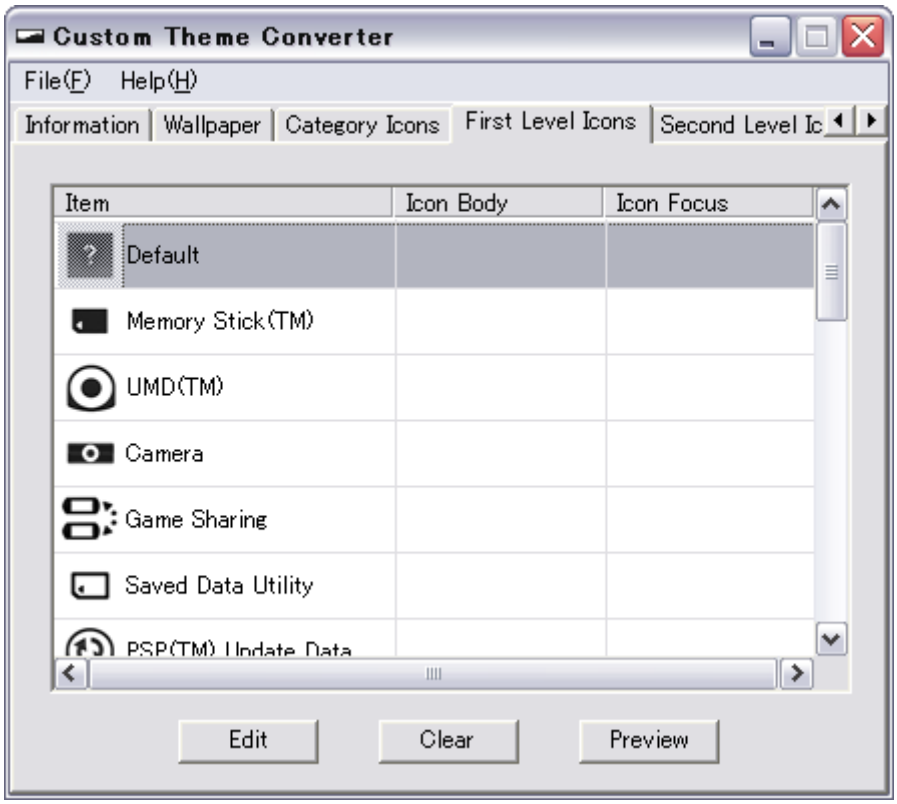
This tab is used to set the image files that will be used for the category icons. By clicking on the Preview button, the category icons can be previewed. For information about files that can be set as category icons, see Chapter 3 "Image Sizes and Formats."



The default icon is used for category icons that have not been set. If the default icon itself has not been set, the original icon is used instead. This also applies to new category icons that will be added in future updates.

First Level Icons Tab

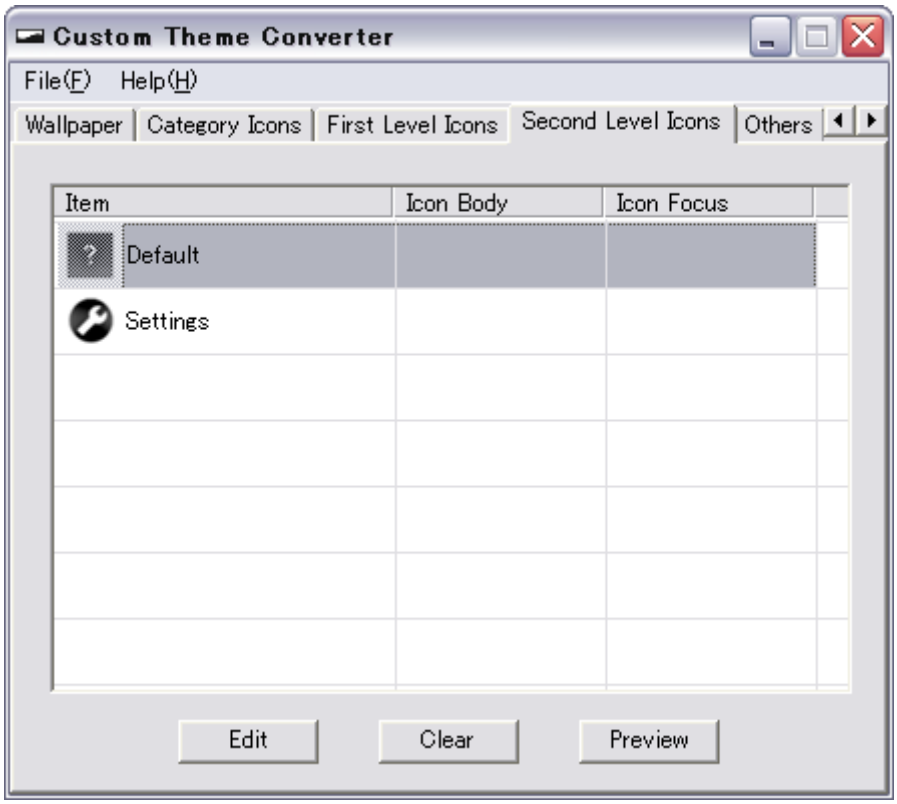
This tab is used to set the image files that will be used for the first level icons and focus. The Edit button will switch to the file selection screen and the Clear button will clear the selected file. By clicking on the Preview button, the first level icons and focus can be previewed. For information about files that can be set for the first level icons and focus, see Chapter 3 "Image Sizes and Formats."



The default icon is used for first level icons that have not been set. If the default icon itself has not been set, the original icon is used instead. This also applies to new first level icons that will be added in future updates.

Second Level Icons Tab

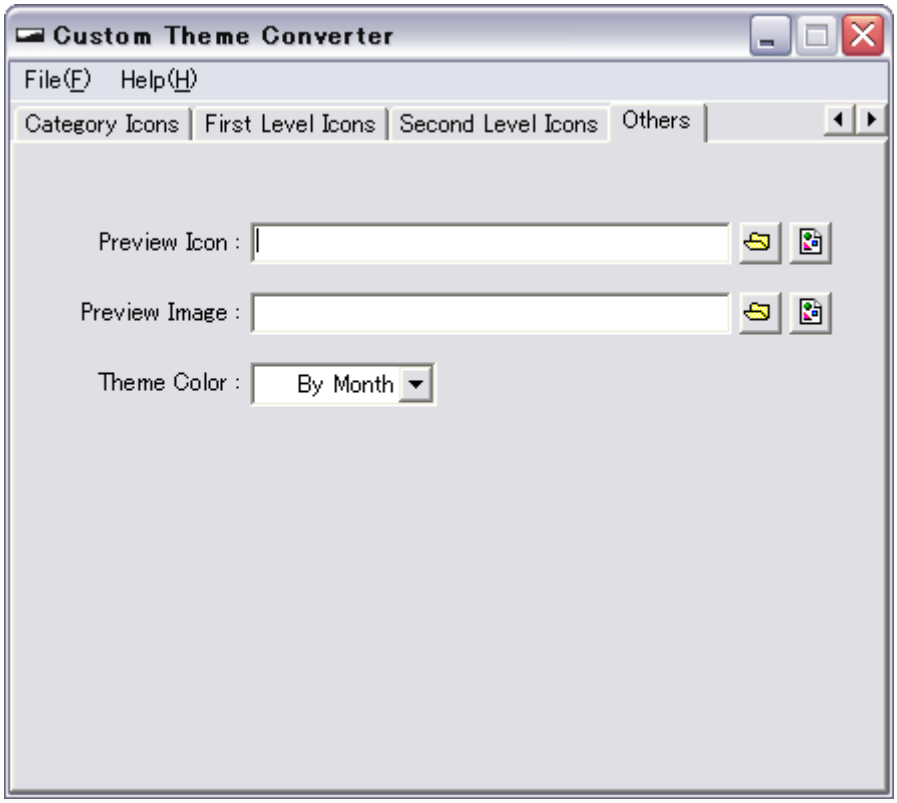
This tab is used to set the image files that will be used for the second level icons and focus. The Edit button will switch to the file selection screen and the Clear button will clear the selected file. By clicking on the Preview button, the second level icons and focus can be previewed. For information about files that can be set for the second level icons and focus, see Chapter 3 "Image Sizes and Formats."



The default icon is used for second level icons that have not been set. If the default icon itself has not been set, the original icon is used instead. This also applies to new second level icons that will be added in future updates.

Others Tab

This tab is used to set the image files that will be used for the preview icon and preview image, and also to select the theme color. By clicking on the preview buttons, the preview icon and image can be previewed. For information about files that can be set for the preview icon and preview image, see Chapter 3 "Image Sizes and Formats."



File Menu

The File menu enables you to perform "New", “Open” and “Save” operations on files that save custom theme settings. You can also select "Write" to write the current settings to a custom theme file.

Help Menu

The Help menu enables you to change settings for themeconv.exe.
You can set the display language to Japanese, English, or Korean from the Settings menu.

7 Using the PSP™ to Download Custom Theme Data

This section describes how the PSP™ Internet browser can be used to download custom theme data.

Meta Information and Download Processing

When the PSP™ Internet browser downloads custom theme data, it uses meta information on both the server and the inserted Memory Stick™ to automatically control the download process.
The meta information that it uses consists of the title, the product ID, and the theme version. These are described below.

Title

Title is the 128-byte (max) UTF-8 string previously specified for "title". It is displayed on the download start confirmation screen.
If the title is too long for the display, it will either be abbreviated or automatically scrolled. To prevent titles from being abbreviated or scrolled, they should be no more than approximately 20 characters long for Japanese, Korean, and Chinese, and 30 characters for all other languages.

Product ID

Product ID is the 48-byte (max) string previously specified for "product_id". It is used for the target filename for the download.
If each custom theme is assigned a different product ID, files can be automatically downloaded and saved with different filenames.

Theme Version

Theme version is the 8-byte (max) string previously specified for "theme_version". It is displayed on the download start confirmation screen.
The theme version is also used to determine whether or not downloading should be executed.
If the Memory Stick™ already has custom theme data with the same product ID as that which is being downloaded, the theme versions are compared and the data is downloaded only if it is newer.
The theme version is assumed to be a combination of at most 3 numbers from 0 to 99 separated by periods ("."), One theme version is newer than another if it has more numbers

or if its numbers are larger than the other.

Examples

- "1.00"
- "1.1.1"
- "12"
- "12.34.56"
- "1.1" is newer than "1.00"
- "1.10" is newer than "1.1"
- "1.1.1" is newer than "1.1"

Therefore, when you update your custom theme data, you can cause it to be downloaded only when necessary by making the theme version newer.

Uploading Custom Theme Data to the Server

To upload your custom theme data to the server for later download via a PSP™ Internet browser, the custom theme data must be assigned a special MIME-Type and extension. The MIME-Type and extension are shown below.

MIME-Type	Extension
application/x-psp-theme	ptf

8 Appendix

Maximum Size

The maximum size of a custom theme file is 768KB.

Compatibility

Custom theme files created with version 1.2.0.0 of themeconv.exe can be used with PSP™ system software version 3.80 or later. They cannot be used with earlier versions of PSP™ system software. Custom theme files created with earlier versions of themeconv.exe can continue to be used.