

# ~~~Project4 Open Beta 1~~~

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## 1. Background info

For those of you who have not seen any coverage of Project4, it's an entire replacement for the XMB that *works from flash* and is *not a shell*. The aim of the project is to eventually remove the XMB completely (although offering the option to use it still in the future).

This is not aimed to replace iRShell, as that and this are two totally different projects. iRShell has the power to run in user memory, which Project4 can't (for various technical reasons), and this is the major limiting factor.

## 2. Included files

The files included in the folder are the installation files, there should be 4 files, these are the EBOOT.PBP (main installer), p4i5.prx, p4il.prx and p4iX.prx, which will be called during the installation process. These files **must** be placed in ms0:/PSP/GAME/Project4/ due to a bug in the installer, which does not set the current working directory correctly, for this reason I've had to hard code the file path.

### 3. Installation

Once the installer is run, a file called KMode.prx will be written to the file, this will be used in order to write to flash0 and should be deleted after installation, if there is an error it is not deleted and you will need to do it manually.

Depending on the type of installation depends on the files written/edited, in all installations Project4.prx is written to flash0, and the graphics, config, version information and KMode plugins are written to flash1. If you are on an OE, LE or 3.5X firmware then you can choose the normal option (by pressing X), after which all the required files will be installed and the patches made, this option is faster than the Universal Installer.

If you wish to use the Universal Installer (or are on a firmware above 3.52) then you will have to sit around and wait for the code to install, it will take a long time to install the “Dirty Hack”.

Using the Universal Installer removes the option to quickly switch between Project4 and the XMB as the hack is complex and time consuming, I hope to overcome this problem by finding an alternative patching method in the future.

Installation:

1. Free up at least 750kb of flash0 space for normal patching, and around 1.2mb for the Universal Installer. You will also need to format plus reflash flash1 system files (read below for how to do this).
2. Make sure the battery is charged to 75% or higher.
3. Run the installer in the 3.XX Kernel.
4. Press X or circle to load the installer you require.
5. Press X to run the installer section of code.
6. Read and accept all the risks involved, and press X
7. Sit back and relax as the code installs Project4.
8. Installation may take a while, especially writing the Project4 main code, and patching the Sony firmware, just leave it to do its job, do NOT interrupt this process as it **has not crashed**.
9. Once the installation is complete, turn off the PSP yourself completely, this is important as problems can occur if you shutdown any other way.
10. If any problems occur during installation an error will appear, if it says failed then there is no problem, just try installing again, if you fail writing major files it is likely you will have semi

bricked and will need to reinstall your firmware, I have tried hard to avoid this, but complications can always occur.

11. Finally, in case of a full brick, however unlikely, refer to the Free Downgrading/Unbricking Service List ->

<http://www.darkmessiah.byethost13.com/freeservice.html>

## 4. Un-installation

Un-installation follows the same basic rules as installation. You **must** use the un-installer for the installer you used, if you don't you run serious risk of a brick.

Un-installation:

1. Make sure the battery is charged to 75% or higher.
2. Run the installer in the 3.XX Kernel.
3. Choose installer you used originally.
4. Press the O to enter the un-installer section of code.
5. Read and accept all risks involved, and press X.
6. Sit back and let the code un-install everything for you.
7. If you get a message warning that you do not have Project4 installed, but are sure you have, run the un-installer section of code pressing the left shoulder button to bypass the check (please note this is highly dangerous to do without Project4 installed).
8. Un-installation may take a while, especially re-installing the XMB, just leave it to do its job, do NOT interrupt this process, as it **has not crashed**.
9. Once everything is un-installed, turn off the PSP yourself completely, this is important as problems can occur if you shutdown any other way.
10. If any problems occur, an error message will appear, if it fails, then you should use the recovery menu to install the firmware yourself.
11. Finally, in case of a full brick refer to the Free Downgrading/Unbricking Service List ->  
<http://www.darkmessiah.byethost13.com/freeservice.html>

## 5. Switching between the XMB and Project4

If the Universal Installer has not been used, there is an option to switch between the XMB and Project4 using the installer. Simply booting up the installer and choosing the option you chose originally you can press square to select the switch, from here you will be given the option of which to use. The switch should take literally milliseconds to work.

There is currently no option for the Universal Installer due to the fact the patch made must be un-patched in order for it to boot the XMB, un-patching the “Dirty Hack” would be too time consuming and is quicker to un-install totally.

## 6. Flashing flash1 system files

This is not exactly required, but can reduce the chance of having an error when installing. It makes sure that there is sufficient space in flash1 to install the theme, KMode plugin, config and version details.

Formatting flash1 plus reflashing system files:

1. Format flash1 using whatever way you like.
2. Reboot the PSP going to the XMB, you should face a BSoD, this is normal.
3. Press circle to reflash the system files required.
4. Sit back and wait, this can take a few seconds to do...
5. Once its finished writing the files, the system will reboot back to the XMB, and you should now have a flash1 with sufficient space.

## 7. Functions

### 7.1. Working

- ISO loading.
- CSO loading.
- ISOFS NoUMD mode.
- Editable GUI.
- 3.XX Kernel loading for EBOOT, PRX and ELF files.
- 1.50 Kernel loading for EBOOT, PRX and ELF files.
- PNG loader.
- JPG loader.
- HEX reader.
- UMD loader.
- Internal keyboard (soon to be replaced by Sony keyboard).
- File Copying.
- Change config and flash writing.
- Theme flashing.

### 7.2. Faulty

- MP3 Player.
- Text Reader.
- File Deletion (Does not delete folders if there are files or folders inside).
- NoUMD compatibility (M33 driver and NP9600).

### 7.3. Broken

- M3U loader
- USB transfer
- XMB Loader

### 7.4. Future

- Complete Image Viewer
- Complete Music Player
- Movie Player
- PSP Config Menu
- Wireless Transfer
- PiKey Compatibility
- Replace current font with intraFont style

## 8. Future updates

In the future I will find a faster and cleaner patch that will work on all versions. I will also change some of the graphical functions, which will give a major speed up.

I'll work on multi-threading the mp3, and using a packet based system which should allow music to be played, as well as hopefully fixing support for m3u play lists, and hopefully given enough time add WMA compatibility.

A full graphical flasher for themes, showing you the theme, as it will be displayed, and allowing you to move the images around.

USB transfer (should have made it into this version but for some reason didn't...)

Ability to change the default loading folders in the main menu.

USBHostFS compatibility.

Replace the internal keyboard which is pretty awful with the Sony OSK.

Fix the error notification, and to add suitable messages.

Add a new error handler to catch all un-caught errors that may occur (possible integration with current homebrew).



## 9. Graphics specifications

The graphics of Project4 can be replaced with user made graphics as long as the following specifications are followed:

Background 480x272

Icons 75x75

Banner 480x30

All of those must be in png format.

To install the images you have 2 choices, the first is to use the inbuilt theme flasher, this is activated by viewing the image, and pressing start, from there you select the Flash as Theme option. The code will check the dimensions of the image and will give you options based upon that.

If you want to install manually, the images are held in flash1:/p4/ folder, so simply mounting flash1 to USB and placing the files into the p4 folder with the correct name will work.

## 10. Known bugs

These are the known bugs and are being worked on currently:

After flashing an image random ASCII appears on screen.

MP3s cause crashes.

Folders with a . in them will not open.

jpg files can be flashed as a theme, but will cause a crash.

Any UMD inserted in NoUMD mode with the M33 or NP9960 driver will be booted rather than the ISO.

Any image 2048x2048 will not be loaded.

## 11. Bug reporting

Any bugs found should be posted on my forums under the aptly named Bug Reporting board, and should contain as much information as you can give me, a basic layout would be:

Version:

Firmware version:

BSoD:

(If a BSoD appeared)

Error number:

Source file:

Function:

Action:

Description:

What you were doing at the time of the problem:

Any other relevant info:

An example:

Version: Open Beta 1

Firmware version: 3.40 LE

BSoD: Yes

(If a BSoD appeared)

Error number: 0xDEADFEED

Source file: config.c

Function: configchange

Action: sceIoOpen

Description: Error editing config.

What you were doing at the time of the problem: Changing the config.

Any other relevant info: None

Please bare in mind that there is a LOT of code to go through (nearing on 7mb overall) so any bugs found should be posted with as much information as you can give me, it just allows me to track the problem down a lot faster.

I'm expecting a lot of bugs in the first versions, but if you notice any that are obviously not working, such as MP3s crashing, then please don't bother wasting my time, as these are already known bugs.

## 12. Theme Submission

Themes can be submitted on the Themes board.

Normal users cannot upload files to the forum as there is not an awful lot of space server side, so please take screenshots of the theme and upload them to photobucket or another image hosting site.

djinc and myself will be moderating the board, and any spectacular themes will (with the owners permission) be uploaded directly to the forum, and have the chance to be in the next open versions' installer. The user will also be contacted asking for specific details for the release, such as where they would like images to be positioned by default.

I understand that the current theme is not to everyone's liking, so if you are not happy with the current theme I urge you to make a better one and upload it, the whole idea of Project4 is to be customisable in ways the XMB never will be.

## 13. Thanks list

A list of everyone who I think deserves a mentioning:

- TyRaNiD for working on PSPLink plus a lot of the SDK
- Everyone who was part of the Prometheus Project, without the Pandora battery I wouldn't have dared delved this deep into the flash.
- Steven Jenkins who beta tested this more than even I did, and gave me the moral support I needed each and every time I came close to dropping the project.
- brethern, who sent me Cygwin, the toolchain and SDK, which without, none of this would have been possible.
- Anyone who has ever added anything to the SDK, keep up the good work :)
- Raphael, who although didn't have faith in me, pointed me in the right direction to getting this working sufficiently from flash.
- Everyone on the C/C++ Help Thread on QJ who has helped me in any way shape or form, I appreciate it guys :)

## 14. Contact info

Anyone who wants to contact me to submit a bug or a theme please post them on the forum. Anyone with a major bug should contact me via the PM system, I class a major bug as something that can cause harm to the PSPs flash, although I don't believe there is anything in the code that can cause this, there is still a small chance of this happening.

Anyone with any suggestions should post on the Public Releases board.

Please do NOT contact me about Beta Testing positions, the only 2 positions I require are both taken, djinc is my fat tester, Xsjado7 my slim, I need no more than this.