iEDGE Reference Manual v1.0

iEDGE is a multi-functional Micro SD adapter for DSi, DS Lite and DS which allows you to play games, listen to MP3's, view images, read e-books and enjoy the vast collection of homebrew applications for NDS. You can also take advantage of the inbuilt cheat code functionality to enjoy more freedom with your favourite games.

Features

- iEDGE comes blank and does not include any copyright software, making it 100% legal
- Fully updateable bootstrap via custom onboard CPU to combat future DSi firmware upgrades
- 100% game compatibility, supports clean ROM's - works on any OS
- Supports DSi firmware v1.4
- Full NDS download play support, including problem games such as Mario Kart DS
- Automatic ROM protection patcher
- Action Replay compatible cheat code engine, comes bundled with cheat codes for over 330 games!
- Uses MicroSD card, both FAT16 and FAT32 supported
- Save type is automatically detected, no need for a save type database
- Save directly to MicroSD rather than onboard flash
- User friendly, easily skinnable interface. Both touch screen and button operation supported
- Multi-lingual user interface
- Excellent homebrew compatibility thanks to the DLDI auto-patcher
- Moonshell included to provide media playing functionality, soft-reset is supported
- PassMe function (boot from slot 2) - DS and DS Lite only
- Supports rumble and memory expansions - DS and DS Lite only
- Supports DSi / DS Lite / DS

WARNING REGARDING DSI FIRMWARE UPDATES

The DSi has completely updateable firmware, meaning it is possible that in the future a firmware update will be released which will block iEDGE along with all other competing products. For this reason it is vital that when a DSi firmware update is released, you **DO NOT** install this update until we, the EDGE Team, have verified that the firmware update is safe to install. Our website displays the most recent DSi firmware version supported by iEDGE – **DO NOT** install a DSi firmware update more recent (i.e: a higher version number) than that which is listed. If such a firmware update is released in the future, a new iEDGE bootstrap will be released to combat the update. In this case you must install the new iEDGE bootstrap **BEFORE** installing the new DSi firmware update. Failure to do so may result in your iEDGE being blocked by the DSi; if this happens then you will need either a DS Lite or a DSi with older firmware to successfully update the bootstrap.

Initial Setup

In order to meet compliance with universal copyright laws, we have taken a completely legal approach for our iEDGE product. Competing products distribute flash content which contains illegally distributed partial ROM images (required for booting on DSi) which are needed as part of the bootstrap data.

We have designed our product in such a way as the user may merge the required ROM data with the iEDGE bootstrap data in order to generate a file containing the required ROM data. In this way iEDGE can be legally distributed, meaning that customers and distributors will not face the risk of the product being seized at customs and border controls. This bootstrap file creation only has to be completed once for normal usage, or when the user must update to a new bootstrap version (for example, if an old bootstrap gets blocked by a future DSi firmware update). The documentation accompanying each bootstrap release will list the required ROM file.

Note that bootstrap data is different from the iEDGE OS. The bootstrap data is the content required to actually boot iEDGE, whereas the OS is the software which executes the user functionality of iEDGE such as ROM loading and media playback. The OS is stored on the MicroSD card and is trivially updated by simply copying the relevant files.

The first time you use iEDGE, you must first install the bootstrap and then secondly copy the iEDGE OS files onto your MicroSD card. Once these two steps are completed, your iEDGE is ready to use.

Bootstrap Updates

The flash on the iEDGE is shipped blank from the factory. This can be confirmed by inserting the iEDGE into your DSi system, at which point a message will be displayed "iEDGE – Instructions www.edge-ds.cn". In order to use iEDGE on your system the following initial setup procedure must be followed:

Copying the bootstrap update to MicroSD

1) Download the latest appropriate bootstrap updater from the download section of www.edge-ds.cn (ensure you download the version corresponding you your operating system: Windows, Mac OSX or Linux)
2) Ensure that you have obtained the required ROM file which correlates to the bootstrap updater (this will be listed in the bootstrap documentation)
3) Insert a MicroSD card into a MicroSD reader for PC via USB then launch the bootstrap updater executable, ie: EdgeBootUpdate.exe
4) Navigate to the local path containing the ROM file content and then select "Update"
5) Merged bootstrap data will now be copied to your MicroSD card
6) Remove the MicroSD card from the PC MicroSD reader and insert in iEDGE
7) Insert the iEDGE card into the DS before turning on the console

Initial bootstrap update

8) A red iEDGE icon with text "iEDGE – Instructions www.edge-ds.cn" will be shown
9) The iEDGE has an onboard red LED which will begin to flash; this can be seen by looking at the point near the middle of the cartridge, beside the MicroSD card. This means the update is in progress – at this point, **do not** interfere with the DS by pressing any buttons or making any contact with the touch pad. **Do not** turn off the DS or remove the iEDGE cartridge!
10) Flashing will become more intense as the update progresses. Once the LED stops flashing the update is complete and the user should turn off the console.
11) iEDGE is ready to use. If you have not done so already, copy the iEDGE OS files to your MicroSD

Subsequent bootstrap updates

Subsequent updates to the iEDGE bootstrap may be required in the event that a future DSi firmware update is released which blocks older bootstraps. For a subsequent update of the bootstrap, follow steps 1-7 above to copy the bootstrap update to the MicroSD. Once the MicroSD containing the update is inserted in iEDGE, simply boot iEDGE from the DS menu as you normally would. iEDGE will then automatically begin the update progress, however unlike with the initial update, this time the update progress will be graphically represented on the DS screen and shown as a percentage.

iEDGE OS Installation

1. Download the latest iEDGE OS from www.edge-ds.cn, extract it and then copy to your MicroSD card which will be used on your DSi system.
2. Insert the Micro SD into iEDGE
3. Insert iEDGE into the DSi system and turn on the console
4. iEDGE can now be booted from the DSi menu

Updating to the latest iEDGE OS is as simple as downloading the most recent version and copying the new files to your MicroSD card, replacing any old files.

Main Menu

Upon launching the iEDGE application, you will be presented with three icons. On the left is the **Games / Homebrew** icon which is used to browse and load commercial and homebrew ROMS stored on the MicroSD card. In the middle is the **Media** icon which is used to launch the media playing software (described below). On the right is the **Settings / Misc** icon which is used to configure various aspects of iEDGE's operation.

Games / Homebrew

From the main menu select **Games / Homebrew**, which will take you to the game list. Use the NDS stylus to scroll downwards or upwards to the desired storage location and tap once to launch the ROM, it's that simple. Should you not wish to use the stylus for navigation, you may also use the D-pad for scrolling and A button to enter a folder or execute a file. The B button will take you to the previous directory, or back to the main menu if you are browsing from the root directory. The L shoulder button acts as page down and R shoulder button page up, for page by page navigation. The X button toggles between the three file view modes: ROM view where the game name stored inside the ROM file is displayed, file view where the file name of the ROM is displayed and list view which is similar to file view mode except 10 items are displayed per page rather than just 4.

Cheat Codes

iEDGE contains an Action Replay compatible cheat code engine, giving you access to game enhancements such as infinite lives, infinite health, all levels unlocked and much more - the possibilities are endless! iEDGE comes with a bundled cheat database containing up-to-date codes for over 330 different games which means you can take advantage of the cheat code functionality right away.

Cheat Codes are disabled by default and must be enabled from the settings screen before they can be used. After selecting a game to play, iEDGE will scan the cheat code database to see if there are any codes available for the game you have selected. If codes are found then you are asked if you wish to select any codes to enable. If Yes is selected, you are taken to the cheat code selection screen. If No is selected then the game will simply start as normal without any codes enabled.

As with the game list, the cheat code selection screen may be navigated using either the stylus or buttons. Use the D-pad for scrolling, the A button to toggle a code on/off or open/close a folder and the X button to clear all selected codes. When you are done press the START button to launch the game with the cheat codes you have selected enabled.

Savegame Function

iEDGE allows you to save your game states as if it were a regular game cartridge. The save game files are stored in a special format on your Micro SD card. The save game file is the ROM filename + ".sav" extension, so for example with "Super Mario Brothers.nds" the save would be stored as "Super Mario Brothers.sav". You may navigate the save game files with your PC and back them up if you please.

Game Sharing

Original NDS cartridges may offer a game sharing function, where only one physical game cartridge is required for two system owners to play the same game. iEDGE offers exactly the same functionality and game sharing is enabled in exactly the same manner as a regular game cart.

Some games offer a feature where they can connect with a Nintendo Wii console (currently Pokemon Diamond/Pearl support this feature). Naturally, iEDGE allows this feature to function in exactly the same manner as a regular game cart.

Homebrew Software

iEDGE is capable of running homebrew applications without any preparation on the users' part. Our dynamic auto-patch feature will enable homebrew software to access the MicroSD card without any fuss whatsoever. The conventional method of manually patching DLDI drivers into homebrew software is not required for our device.

If you wish to access a slot 2 device (DS/DSL only) from homebrew software, then it is necessary to disable DLDI auto-patching. To disable DLDI auto-patching, hold SELECT while executing homebrew software.

Skinning

The iEDGE GUI is fully skinnable, and skins are easy enough to make so that anyone can do it! To use one or more skins, simply transfer the required skinning files to the folder **\EDGE\skins** on your MicroSD card and then select the desired skin from the settings menu. Please note that each skin should have its own folder within the \EDGE\skins folder – so for example if your want to use a skin called "Mario", create a directory called "\EDGE\skins\Mario" on your MicroSD card and then copy the skinning files into this directory. Skinning files consist of several .BMP files and a single .XML file – this means that you need to extract these files first, do not just copy the .ZIP/.RAR file onto the MicroSD card! So for example, for the Mario skin you might have a file structure similar to this:

\EDGE\skins\Mario\skin.xml
\EDGE\skins\Mario\top.bmp
\EDGE\skins\Mario\bottom.bmp
\EDGE\skins\Mario\scrollbar.bmp
\EDGE\skins\Mario\cheat-icons.bmp
\EDGE\skins\Mario\menu-icons.bmp

Supplementary Features

The **Boot From Slot 2** (DS/DSL only) feature allows you to boot your slot 2 device. In effect iEDGE acts as a PassMe in this mode.

To keep the main menu file listing tidy, it's possible to hide folders which you do not want to appear in the list. To do this, simply set the folder attributes to hidden with your operating system (to do this with Windows, right click on the folder you wish to hide, click "Properties" and make sure "Hidden" is checked).

Media

The media icon will launch the Moonshell media player application if it has been preloaded to your MicroSD card. If you wish to return to the iEDGE main menu after Moonshell has been started, simply tap the icon in the upper left corner of the bottom screen and then tap "RESET.MSE". You may download the Moonshell application from the official iEDGE website:

http://www.edge-ds.cn/

Settings / Miscellaneous

The settings menu allows toggling of different LCD screen brightness (NDSL only), selection of different languages, cheat codes, the current skin and finally, booting from a slot 2 device.

Additional Information

In relation to preparation of bootstrap data, it is possible to embed the required ROM data in the EdgeBootUpdate executable so that you don't need to store the ROM and find it every time you want to setup a new MicroSD card.

Type the following from a command line:

EdgeBootUpdate.exe -e "x.nds"

Where EdgeBootUpdate.exe is the filename of the original executable and "x.nds" is the path to the required ROM file. A new executable named "EdgeBootUpdateEmbed.exe" will be created with the ROM data embedded. The prepared file can then be used without going again through steps 1-4 of the bootstrap update process. This means that the new executable is completely standalone and does not require any external ROM file.

FAQ

Q: Which languages does the iEDGE support?
A: English, Indonesian, Simplified Chinese, Traditional Chinese, Tagalog

Q: Will I be required to patch games or alter them in any way before use on iEDGE?
A: No

Q: How does the save game functionality work?
A: iEDGE saves a game as if it were a regular game cartridge. The resulting .sav files can be backed up to PC or replaced with a previous or more recent .sav file from the same game.

Q: Is the iEDGE OS software upgradeable?
A: Yes, free and regular updates will be provided for download.

Q: Is homebrew software supported?
A: Yes, and patching DLDI drivers manually is not required.

Q: Can iEDGE be used with the Rumble Pack or Opera Browser RAM Expansion?
A: Yes, but only on DS and DSL models.

Q: Will battery life be affected?
A: No, we have purposely chosen low power consumption components to avoid this issue.

Q: Can I drag and drop files to my MicroSD card using Windows, Mac OS or Linux?
A: The bundled iEDGE card reader is mass storage compliant, so any operating system can be used to manage the MicroSD file transfers.

Q: Are any custom files or software required in order to manage files for iEDGE?
A: No, files can be dragged and dropped to the MicroSD card using any standard PC OS.

Q: What colour is the iEDGE cartridge?
A: iEDGE is currently offered in white

Q: Will I have to modify my NDS or NDS Lite in any way, shape or form?
A: No, iEDGE will never require any user tampering with his NDS console. Furthermore, iEDGE updates are independent of console revision.

Q: Are NDS, NDS Lite and DSi consoles supported?
A: Yes

Q: Can iEDGE be used on a DS from anywhere in the world?
A: Yes

Q: Do I need a PassMe or Passkey device in order to use EDGE?
A: No, just the iEDGE and a MicroSD card.

Q: Can the EDGE OS be re-skinned?
A: Yes.

Additional Information

For more information regarding iEDGE please see the official website:

http://www.edge-ds.cn/