Nintendo DS™

Lot Check Instructions

Version 1.80

The contents in this document are highly confidential and should be handled accordingly.

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Confidential

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Revision History

Version	Revision Date	Description
1.80	2007/12/21	Made revisions based on Nintendo DS Programming Guidelines Version 2.0.5. - Changed the rank of “3.3.2 IPL Banner in Regional Languages **[Recommended]**” from Required to Recommended. - Added an explanation to the Test Procedure section of the “6.1.4 DS Wireless Communications ON State **[Required]**” item, stating that the user’s permission must be obtained when restarting communications. - Added an explanation about the timing with which the TGID is updated to the overview of “6.3.8 TGID Used in Single-Card Play **[Required]**.” - Added “8.1.1 Implementation of an Incremental Display Feature for the Microphone Input State **[Required]**”
1.72	2007/06/29	Changed Version to 1.72 to match the Lot Check Checklist.
1.71	2007/06/22	- Added exceptions to the overview of "4.2.4 Prohibition of Stylus-Only Interfaces **[Recommended]**." - Deleted "6.1.6 ON/OFF switching feature for DS Wireless Communications during gameplay **[Recommended]**" - Revised the overview of "7.8.1 Demo Screen Looping **[Required]**" to mention confirming title screen when there is no demo screen.
1.70	2007/06/18	Made revisions based on Nintendo DS Programming Guidelines Version 2.0.4 - Changed items so they are the same as in the guidelines. The order of some items were thus changed, and some of the contents were edited. Also, the references were all deleted. - Added "2.2.7 Limitations for a 2-Gigabit DS Game Card **[Required]**" - Added "2.3.5 Access to DS Option Paks **[Required]**" - Corrected the level of importance for "5.3.3.1 Automatically Transition to LCD OFF State **[Required]**" and "5.3.3.2 Transition from LCD OFF State **[Required]**." - Added "5.4.2 Microphone **[Required]**. - Added "5.6.1 Power Conservation when the DS is Closed **[Required]**." - Added "6.3.19 Prohibition Against Notification of Data Distribution Support by DS Download Stations **[Recommended]**." - Added "7.3 Prohibition of Health and Safety Warning Screen Display by Application **[Required]**." - Updated the SDK version information in "7.9.1 NITRO-SDK Version Used in the Master ROM **[Required]**."
1.60	2006/08/24	The following revisions have been made based on Version 2.0.0 of the DS Programming Guidelines. Deleted information regarding NITRO-SDK version from “DS1-1 Card Removal Detection **[Required]**” overview. Description regarding sleep mode support has also been added. Deleted information regarding NITRO-SDK version from “DS 1-2 Confirm the DS Card’s ROM-type setting **[Required]**” overview. Added “DS 1-3 Restrictions on the use of 1Gb DS Card **[Required]**.” Deleted information regarding NITRO-SDK version from “DS 1-5 GBA Game Pak removal detection for Game Pak supported titles **[Required]**” overview. Deleted “Prohibit setting the IPL clock from a game **[Required]**” following the addition of “DS9-9 Master ROM compile target verification.” Added “DS 4-5 User feedback check for microphone input state **[Recommended]**.” Added “DS6-8 Channels scanned during the operation of child **[Required]**.” Added a note to “DS6-15 When too many children attempts connection **[Required]**” overview that a notification to the player is unnecessary during Chance Encounter Communication. Revised the pass/fail determination in “DS9-1 Library Requirement **[Required]**” following the requirement of NITRO-SDK 3.0 and later for all titles.

Version	Revision Date	Description
		Added “DS9-9 Master ROM Compile Target Check **[Required]**.” The chapter and test numbers has been changed to match the guideline, and misspelling, typos, and grammatical errors have been corrected.
1.5.0	2006/05/26	The following revisions have been made based on Version 1.9.0 of the DS Programming Guidelines. In “1 Overview”, a description was added indicating that not everything in the guidelines was covered in the Lot Check explanatory materials. “Supported?” was changed to “**Software to be Inspected**", a clarification that makes it easier to understand which software will be subject to inspection. Added “1.1 The Table of Check Items.” Split the “DS1-1 Process for Card Removal Detection **[Required]**” test procedures into three categories: 1) When booting from a DS Card, 2) When on a DS download child and card access is not supported, and 3) When on a DS download child and card access is supported. Also made changes to the item names. Deleted “The Message Displayed when Card Removal is Detected **[Recommended]**.” Changed the name of“DS1-3 Game Pak removal detection for titles that do not use Game Paks **[Required]**.” Split “DS1-4 Game Pak removal detection for titles that do use Game Paks **[Required]**” into a removal detection for Active Mode and a removal detection for Sleep Mode. Also made changes to the item names. Added “DS1-5 Measures for Exchanging Identical GBA Game Paks during Sleep Mode **[Recommended]**.” Added information about the factory settings error message to “DS2-1 Dependence on factory settings is prohibited **[Required]**. Added 4Mbit FLASH to “DS2-2 Frequency of rewrite to backup memory that has a rewrite lifetime **[Required]**.” Deleted the description about the factory settings from “DS2-4 Message display when backup data is corrupted **[Recommended]**.” Changed the “DS2-12 GBA Game Pak backup data rewrite **[Required]**” test procedure so that the test is performed when the data is rewritten and on the operation after rewriting data. Changed the wording of the outline for “DS3-1 Using User Names and Comments **[Required]**” and simplified the expressions for the test procedure. Added “DS4-4 Prevention of Audio Feedback **[Required]**.” Added a supplement to the “DS5-3 Process after an RTC alarm causes a move to Active Mode **[Required]**” test procedure. Clarified the conditions where the backlight must not be turned off in the Overview for “DS5-9 Prohibit the player from turning off the backlight **[Required]**.” Made changes to the information about altering an icon in the “DS6-3 Using DS Wireless Icons **[Required]”** outline. Added a supplement to the method for determining pass or fail in “DS 6-6 Game card removal detection during the DS wireless communication **[Required]**.” Added “DS6-17 Checking the Wireless State Before Beginning Parent Device Operation **[Recommended]**.” Made changes to the information about altering an icon in the “DS7-2 Using a Designated Icon and Sound **[Required]**” outline. Added “2.8 The DS Rumble Pak.” Added 4Mbit FLASH, the Touch Screen, and recovery from Sleep Mode via an RTC alarm to “DS9-1 Strict Library Requirement **[Required]**”. Also added a section about which SDK versions cannot be used. Changed “DS9-4 Image Display Procedures **[Recommended]**" to “DS 9-4 Image Display Procedures with Consideration to Light Hypersensitivity **[Recommended]**.” Made changes to the case 3 in the method for determining pass or fail of “DS9-6 Reset during backup and communication **[Required]”** in accordance with the Guidelines. Added “DS9-10 Displaying the Logo when Using VX Middleware **[Required]**.” Also made other revisions in accordance with the Guidelines to section numbers and test

Version	Revision Date	Description
		numbers, and to characters that were erroneous or misplaced.
1.4.0	2005/12/02	Revised according to DS Programming Guidelines Version 1.7.0. Added description of processing during DS Single-Card Play to “DS1-1 Game card removal detection **[Required]**.” Added 512Kbit EEPROM and 256Kbit FRAM to “DS2-2 Frequency of rewrite to backup memory that has a rewrite lifetime **[Required]**.” Changed details regarding the handling of corrupted data in “DS 2-5 Destroying corrupted backup data **[Required]**.” Added “DS 2-9 Confirming backup memory before writing data **[Recommended]**.” Added “DS 2-10 Confirming backup memory at startup and when reading data.” Changed “DS 5-8 Circumstances when the backlight may be turned on and off automatically **[Required]**” and “DS5-9 Prohibit the player from turning off the backlight **[Required]**” to match the details of disabling backlight OFF. Changed the test method in “DS 6-8 Reception strength icon **[Required]**” to a method that checks the level display of icons from a distance. Added “DS 6-18 Displaying automatic save messages during Chance Encounter Communication **[Recommended]**.” Added 512Kbit EEPROM and 256Kbit FRAM to “DS 8-1 Strict Library Requirement **[Required]**.” Other revisions include the correction of omissions, typos and changes to chapter and test numbers in line with the guidelines.
1.30	2005/07/06	Revisions based on DS Programming Guidelines Version 1.6.1. Added description of processing when main unit is closed to “DS1-1 Game card removal detection **[Required]**.” Added “DS1-3 Confirm the DS Card’s ROM type setting **[Required]**.” In “DS2-2 Frequency of rewrite to backup memory that has a rewrite lifetime **[Required]**” changed the 10-minute rewrite frequency for 2-Mbit flash. Changed rank from **[Recommended]** to **[Required]** in “DS2-6 Display shown while writing **[Required]**” and “DS2-7 Timing of a display that indicates writing **[Required]**.” Added description of alternate characters to “Overview” of “DS3-1 Using user names and comments **[Required]**.” Changed the subject of “DS3-4 Prohibit setting the IPL clock from a game **[Required]**” to all game titles. In “Pass Fail Determination” of “DS3-5 IPL screen banner display **[Required]**” and “DS3-6 DS single card banner display **[Required]**”, added note that only usable characters should be displayed. Changed “Support?” of “DS4-5 Device input when the DS system is closed **[Required]**” to case where game plays when closed. In “Overview” of “DS5-4 Switching to Sleep Mode during backup or while communicating **[Required]**”, described possibility of occurrence in the market. In the “Overview” of “DS5-8 Automatically switching the backlight on and off **[Required]**”, added description of cases in which it is acceptable to switch the backlight on and off. Added “DS5-10 DS Main unit power off **[Required]**.” Added PictoChat Search support to “Support” items related to PictoChat Search in Section 2.7 DS Wireless Communication. Added description of sending and receiving wireless signals to the Overview of “DS6-2 DS

Version	Revision Date	Description
		Wireless Communication ON display **[Required]**." Changed test method in "DS6-7 Feature for setting DS wireless communications on/off during game play **[Recommended]**." In "DS6-9 Message when the link is cut **[Required]**", changed test method to require check of both parent and child. Modified test methods in "DS6-10 GGID confirmation **[Required]**", "DS6-11 Updating TGID **[Required]**" so that they employ the `WMTestTool` included in the Nitro SDK. Added Section "2.6 DS Wireless Communication PictoChat Search." Added the Nitro SDK version for accessing one-time PROM to "DS8-1 Strict library requirement **[Required]**." Changed chapter and test numbers to match Guidelines. Corrected typos and missing characters.
1.21	2005/01/24	Revisions based on DS Programming Guidelines version 1.4.2. Added reference to the version of SDK that automatically performs the processes in "DS1-1 Detecting the removal of a DS Game Card **[Required]**," and "DS 1-4 Detecting the removal of a Pak for titles that use Paks **[Required]**." Added "DS 2-9 Overwriting DS Card backup data **[Recommended]**." Changed the description of "DS 6-3 Using DS Wireless Communication **[Required]**" to include that the DS wireless icon should not be modified. Added "DS 6-6 Detecting the removal of a DS Card when DS Wireless Communication is ON **[Required]**." Added an item regarding the DS Single-Card Play child in "DS 7-6 Resetting while a backup or communication process is in progress **[Required]**."

Version	Revision Date	Description
1.20	2005/01/19	Revisions based on DS Programming Guidelines version 1.4.0. In “DS 1-1 Detecting the removal of a DS Game Card. **[Required]**,” separated the descriptions for when the DS is open and when the DS is closed. Restricted “DS 1-2 Displaying a message when Game Card removal is detected. **[Recommended]**” only to the case when the DS system is open. Changed the Overview description in “DS 1-3 Detecting the removal of a Pak for titles that do not use Paks **[Required]**.” Changed the time values for rewrite frequency in “DS 2-2 Limiting the frequency of writes to the backup memory **[Required]**.” Added condition to Pass/Fail Determination to include verification after the overwrite in “DS 2-9 Overwriting GBA Game Pak backup data **[Required]**.” Changed the description in Test Procedure for “DS 3-2 Support for gameplay when the date or time is turned back **[Required]**.” Changed the description of Support to “All” in “Support for game to be played on different Nintendo DS systems **[Required]**.” Changed the description for Pass/Fail Determination in “DS 4-2 Prohibiting the forced use of the stylus **[Recommended]**.” Changed the description for Test Procedure in “DS 4-4 Using the opening and closing detection function of the Nintendo DS system **[Required]**.” Changed the description for Test Procedure in “DS 4-5 Handling device input when the Nintendo DS system is closed **[Required]**.” Changed the description for Test Procedure of “DS-5-2 Transitioning from Sleep Mode to Active Mode. **[Required]**” to include Game Pak removal. Changed the description of Pass/Fail Determination in “DS 6-10 Updating the TGID **[Required].**” Changed “DS 6-14 Prohibiting access to DS Game Cards or GBA Game Paks during Single-Card Play **[Required]**” to “DS 6-14 Prohibiting access to DS Game Cards during Single-Card Play **[Required].**” Changed the DS Wireless Communication NITRO-SDK version in “DS 7-1 Restricting library use **[Required].**” Changed testing procedures for opening and closing the DS system to a method that uses a magnet. Made other corrections that included changing section numbers and Test Numbers to match the Guidelines and correcting typographical errors.

Version	Revision Date	Description
1.10	2004/11/10	Revisions based on Nintendo DS Programming Guidelines Version 1.3.0. Changed “DS 1-1 Running your own process after Game Card removal is detected **[Recommended]**” to “DS 1-1 Detecting the removal of a DS Game Card **[Required]**” and aligned the contents to the guidelines. Separated “Strict Library Requirement **[Required]**” to 2.9 Other. Support mask ROM and backup memory access, and DS Wireless Communication. Added “DS 1-2 Displaying a message when Game Card removal is detected **[Recommended]**.” Added "DS 1-3 Detecting the removal of a Pak for titles that do not use Paks. **[Required]**.” Changed “DS 1-2 Running your own process after a Pak removal is detected **[Recommended]**” to “DS 1-4 Detecting the removal of a Pak for titles that use Paks **[Required]**” and aligned contents to the guidelines. Changed the expression that pertains to ship time values in “DS 2-1 Prohibiting dependence on factory settings. **[Required]**.” Divided “Erasing corrupted backup data **[Recommended]**” into “DS 2-4 Displaying a message that indicates that the backup data is corrupted **[Recommended]**” and “DS 2-5 Eliminating corrupted backup data **[Required]**.” Added “DS 3-1 Using IPL user name and comment **[Required]**.” Changed “DS 3-5 Displaying the IPL screen banner **[Required]**” and “DS 3-6 Displaying a Single-Card Play banner **[Required]** in line with IPL banner guidelines. Added “DS 4-5 Handling device input when the Nintendo DS system is closed **[Required]**.” In the Overview of “DS 5-5 Turning the LCD ON and OFF when opening and closing the Nintendo DS **[Required]**”, added information that it is acceptable to have the backup light OFF. Subdivided the pass fail determination method in “DS 6-5 Setting the processes for moving from Sleep Mode to Active Mode **[Required]**.” Added “DS 6-10 Updating the TGID **[Required]**.” Added "DS 6-15 Ensuring that the child device ends processes after Single-Card Play finishes. **[Recommended]**.” Added "DS 6-16 Displaying parent information updates **[Recommended]**.” Changed versions in "DS 7-1 Restricting library use **[Required]**.” Other chapter number, test number revisions, and corrections to align with guidelines.
1.00a	2004/10/06	Initial Version.

1. Overview

This document contains the items to be checked, procedures for checking, and pass/fail criteria that are used in Nintendo Lot Check operations. When you submit your product to Nintendo Lot Check, first take the time to understand the contents of this document. Then check the relevant test items on the attached Lot Check Checklist, and submit your product together with the checklist.

We recommend that programmers read the guidelines carefully as early in the process as possible. Submitting the master will likely go smoother if you use the checklist that accompanies this document.

The information in this document supports the current guidelines. However, guidelines are frequently revised—always confirm that you have the most recent version of the guidelines.

1.1. The Table of Test Items

The Table of test items is made up in the following manner:

1.1.1. Test Number

These are numbers which are assigned to each of the test items. They correspond to the test numbers in the Lot Check Checklist.

1.1.2. Category

These classify the test items according to function, and so on.

1.1.3. Guideline Numbers

The Guideline Numbers for each test requirement are ranked in levels of importance as follows:

[Required]: The guidelines for this item must be followed.
[Recommended]: Following the guidelines for this item are recommended.

Test items that do not include guideline numbers should be treated as items that are required to be checked.

1.1.4. Overview

This section contains specific explanations, background information, and supplemental information so that you can better understand the test items when you are conducting the tests.

1.1.5. Test Procedure

This section describes the testing procedure.

If a number such as 1 or 2 has been assigned here, even if it is for the same check item, the test procedure and the pass/fail determination will differ depending on the features being implemented. Refer to a “Pass/Fail Determination” or “Software to be Inspected” that has been assigned the same number and conduct the appropriate test.

1.1.6. Pass/Fail Determination

This section describes which sort of action will be judged as OK if you implement the procedure described in “Test Procedure”.

If a number such as 1 or 2 has been assigned here, this will be a pass/fail determination on a “Test Procedure” that has been assigned the same number.

1.1.7. Inspection Software

This column indicates whether or not software is needed to perform the test items. For example, if “Software that uses wireless communications” is written in the “Software to be Inspected” column, software that supports DS Wireless Communications must be used to conduct the test. However, there is no need to perform the test item steps with software that does not have any implemented wireless communication features. If a number such as 1 or 2 has been assigned here, even if it is for the same test item, the test procedure and the pass/fail determination may differ depending on the features being implemented. In such a case, refer to the “Test Procedure” and “Pass/Fail Determination” where the same numbers have been assigned.

2. Detailed Testing Requirements

The following describes the test procedures and pass/fail determinations for the items checked by Nintendo Lot Check.

2.1. Game Card/Game Pak Slots

Test Number	DS 1-1	Category	Game Card/Game Pak Slots
Guideline Number	2.2.1 Processing When DS Card Removal is Detected **[Required]**		
Overview	1) When the DS is open Stop DS CPU core and enter the HALT state. However, if a special process is going to be performed before entering the HALT state, enter the HALT state before the game progresses too far. **Note:** When using the NITRO-SDK, the DS automatically enters the HALT state when the DS Card is removed. 2) When the DS is closed Turn the power OFF. However, for: - child devices in DS Single-Card Play - special DS Cards that generate card interrupts for events other than DS Card removal in Sleep Mode The DS CPU must enter the HALT state after coming out of Sleep Mode. **Note:** When the NITRO-SDK library is used, the system will automatically turn off. However, in sleep mode, the system is turned off by including a card interrupt in the recovery condition. 3) When the local DS is a DS Single-Card Play child No processing is performed even if card removal is detected so that play may continue using downloaded data. However, the card interrupt is automatically disabled on a DS Single-Card Play child device when it is in Sleep Mode, so the check is only done when in Active Mode. 4) During DS Wireless Communications Programmers must configure the setting because wireless communications do not automatically shut down when the DS Card is removed while DS Wireless Communications is in the ON state. (Note: If using the NITRO-SDK library, wireless communications will automatically be set to the OFF state after DS Card removal is detected.)		
Test Procedure	1. When booting from a DS Card: (1) Remove the DS Card when the Nintendo DS system is open. (2) Remove the DS Card when the Nintendo DS system is closed. (3) Remove the DS Card during DS Wireless Communications. 2. When the DS is a DS Single-Card Play child and access to the DS Card is not supported: (4) Remove the DS Card when in Active Mode. 3. When the DS is a DS Single-Card Play child and access to the DS Card is supported: (5) When a supported DS Card is inserted, remove the DS Card while in Active Mode. (6) When an unsupported DS Card is inserted, remove the DS Card while in Active Mode.		

Test Number	DS 1-1	Category	Game Card/Game Pak Slots
Pass / Fail Determination	(1) Passes if the game changes to HALT state. (2) Passes if power turns Off except for the exceptions listed above. (3) Passes if the DS Wireless Communications state changes to OFF, the LED remains on at all times, and the DS changes to the HALT state. (4) Passes if there is no impact on the game. (5) Passes if there is no access to a supported or unsupported DS Card when DS Card is reinserted. (6) Passes if there is no impact on the game.		
Software to be Inspected	(1), (2) All. (3) Software that supports DS Wireless Communications or PictoChat Search. (4) Software that supports DS Single-Card Play but access to the DS Card is not implemented. (5),(6) Software that supports DS Single-Card Play with DS Card access implemented.		

Test Number	DS 1-2	Category	Game Card/Game Pak Slots
Guideline Number	2.2.2 DS Card ROM Type Setting **[Required]**		
Overview	A ROM-type setting must be specified when the application is built, but the setting should match the one specified by the company that made the application.		
Test Procedure	Use DS-MRC (Master ROM checker) to confirm the ROM-type setting in the ROM data's "ROM Control Info."		
Pass / Fail Determination	Passes if the ROM-type setting matches the setting (mask ROM or one-time PROM) specified by the company that made the application.		
Software to be Inspected	All.		

Test Number	DS 1-3	Category	Game Card/Game Pak Slots
Guideline Number	2.2.6 Limitations for a 1-Gigabit DS Game Card **[Required]**		
Overview	The 1Gbit ROM being adopted outputs 0xFF when the last 20Mbit is read. When using the 1Gbit ROM, do not use the last 20Mbit and set them all to 0xFF.		
Test Procedure	Check the master ROM using the DS-MRC (Master ROM Checker) version 1.17 and later.		
Pass Fail Determination	Passes if an error regarding the 1Gbit capacity limitation is not displayed.		
Software to be Inspected	Software that supports a ROM capacity of 1Gbit.		

Test Number	DS 1-4	Category	Game Card/Game Pak Slots
Guideline Number	2.2.7 Limitations for a 2-Gigabit DS Game Card **[Required]**		
Overview	Because the 2Gb ROM that is being adopted always outputs 0xFF when the last 40Mbits are read, be sure not to use these last 40Mb and set the entire area to 0xFF when using a 2Gb ROM.		
Test Procedure	Check the master ROM using the DS-MRC (Master ROM Checker) version 1.22 or later.		
Pass Fail Determination	Passes if an error regarding the 2Gb capacity limitation is not displayed.		
Software to be Inspected	Software that supports a disc capacity (ROM capacity) of 2Gbit.		

Test Number	DS 1-5	Category	Game Card/Game Pak Slots
Guideline Number	2.3.1 Detection of Removal with Games that do not use Paks **[Required]**		
Overview	If a game does not use a Game Pak, even if Game Pak removal is detected, no processes should run that (for example) stop the game or display a message to influence the game that is being played.		
Test Procedure	Start playing a game while any Game Pak is inserted; then remove the Game Pak.		
Pass Fail Determination	Passes if the game proceeds as if the Game Pak is not inserted.		
Software to be Inspected	Software that does not support GBA Game Paks and DS Option Paks.		

Test Number	DS 1-6	Category	Game Card/Game Pak Slots
Guideline Number	2.3.2 Detection of Removal with Games that Use Paks **[Required]**		
Overview	- Removal Detection in Active Mode: To discourage hot-swapping, if the game does not support the use of a Game Pak or Option Pak, the game should not respond to the detection of pak removal. Do not stop the game or display messages that can influence gameplay. Allow the game to proceed normally. - Removal Detection in Sleep Mode: If a Game Pak is removed during Sleep Mode, the removal will normally be detected at the point that the DS returns to Active Mode, so further access to the Game Pak must be prohibited as is indicated above. However, if Game Paks of the same title are swapped during Sleep Mode, the removal cannot be detected. Therefore, do not create a game that leverages these characteristics, which could misguide players that hot-swapping is encouraged. **NOTE:** Recovery from the sleep mode using an interrupt from the Game Pak is prohibited. The Game Pak removal cannot be detected in the sleep mode using this method.		
Test Procedure	1. Remove or reinsert the supported Game Pak while in Active Mode, and continue gameplay. 2. Remove the supported Game Pak while in Sleep Mode, open the Nintendo DS system, then reinsert it and continue gameplay. 3. Remove the supported Game Pak while in Sleep Mode, reinsert it while the Nintendo DS system is still closed, then open the Nintendo DS system and continue gameplay.		
Pass / Fail Determination	1, 2. Passes if the game stops, or if the game progresses in the same way as if no Game Pak is inserted. 3. Passes if the game does not use any special specifications such as the exchange of data between Game Paks.		
Software to be Inspected	1 through 3. Software that supports GBA Game Paks. 2 and 3. Software that supports transition to Sleep Mode when the Nintendo DS system is closed.		

Test Number	DS 1-7	Category	Game Card/Game Pak Slots
Guideline Number	2.3.3 Swapping of Paks with the Same Title during Sleep Mode **[Recommended]**		
Overview	Game Pak removal is not detected when Game Paks of the same title are swapped in Sleep Mode. To prevent malfunctions due to such a swap, we recommend that Game Pak backup data hash values be taken before the transition to Sleep Mode and after recovery to Active Mode, or some similar action be taken so that the swap can be detected during Sleep Mode.		
Test Procedure	Remove the Game Pak while the DS is in Sleep Mode. With the Nintendo DS system closed; insert another Game Pak of the same title. Open the DS and continue gameplay.		
Pass / Fail Determination	Passes if the DS performs the same actions as when it is opened and there is no GBA Game Pak inserted in the slot.		
Software to be Inspected	Software that supports GBA Game Paks and transition to Sleep Mode when the Nintendo DS system is closed.		

Test Number	DS 1-8	Category	Game Card/Game Pak Slots
Guideline Number	2.3.4 Access to Game Paks **[Required]**		
Overview	You are permitted access only to your own company's GBA Game Paks that support such access. You are prohibited from accessing any region of any other GBA Game Pak.		
Test Procedure	Insert any non-supported GBA Game Pak and continue the game. Test this on an actual Nintendo DS. Also confirm that the program source does not have code for accessing an unsupported GBA Game Pak.		
Pass / Fail Determination	Passes if the game does not access the data from the unsupported GBA Game Pak.		
Software to be Inspected	Software that supports GBA Game Paks.		

Test Number	DS 1-9	Category	Game Card/Game Pak Slots
Guideline Number	2.3.5 Access to DS Option Paks **[Required]**		
Overview	DS Option Pak access is limited to compatible paks. Access across all regions for other DS Option Paks is prohibited.		
Test Procedure	Insert any non-supported DS Option Pak and continue the game. Test this on an actual DS unit, and also confirm that the program source does not have code for accessing non-supported DS Option Pak.		
Pass / Fail Determination	Passes if it does not access any region of the non-supported DS Option Pak		
Software to be Inspected	Software that supports DS Option Paks.		

2.2. DS Rumble Paks

Test Number	DS 2-1	Category	DS Rumble Paks
Guideline Number	2.4.1.1 Games that Require the Rumble Feature **[Required]**		
Overview	Since the DS Rumble Pak is an optional device, not all users will possess one. You should therefore avoid any specifications that require the DS Rumble Pak in order for the game to progress.		
Test Procedure	Play the game without an inserted DS Rumble Pak.		
Pass / Fail Determination	Passes if the game can progress all the way to the end without a DS Rumble Pak.		
Software to be Inspected	Software that supports DS Rumble Paks.		

Test Number	DS 2-2	Category	DS Rumble Paks
Guideline Number	2.4.1.2 Detecting Removal of Games that Use the Rumble Pak **[Required]**		
Overview	The game should not be stopped if the Rumble Pak is removed nor should any process occur that impacts the game.		
Test Procedure	Remove the DS Rumble Pak while playing the game.		
Pass / Fail Determination	OK if the game does not stop and if no process that impacts the game is performed.		
Software to be Inspected	Software that supports DS Rumble Paks.		

Test Number	DS 2-3	Category	DS Rumble Paks
Guideline Number	2.4.1.3 Switching Rumble Feature On/Off **[Recommended]**		
Overview	We recommend that you implement a feature for switching the Rumble feature ON and OFF during the game out of consideration for a user-friendly experience.		
Test Procedure	Play an actual game and switch the Rumble Feature ON and OFF.		
Pass / Fail Determination	Passes if the DS Rumble Pak rumbles as expected in scenes when the Rumble Feature is switched ON but not when the Rumble Feature is switched OFF.		
Software to be Inspected	Software that supports DS Rumble Paks.		

Test Number	DS 2-4	Category	DS Rumble Paks
Guideline Number	2.4.1.4 Avoid Continuous Operation of the Rumble Pak **[Recommended]**		
Overview	We recommend that you avoid situations where the press of a key causes the DS Rumble Pak to rumble indefinitely, since doing so is not good for the player's health or for the life of the product.		
Test Procedure	Play the game until you come to a location where the Rumble Feature is being used.		
Pass / Fail Determination	Passes if the rumbling does not continue for a prolonged period of time.		
Software to be Inspected	Software that supports DS Rumble Paks.		

Test Number	DS 2-5	Category	DS Rumble Paks
Guideline Number	2.4.1.5 Stopping the Rumble Pak **[Required]**		
Overview	The Rumble Feature must be stopped during a pause, when the device goes into Sleep Mode, or when there is a software reset.		
Test Procedure	(1) Pause the game while the DS Rumble Pak is rumbling. (2) Transition to Sleep Mode while the DS Rumble Pak is rumbling. (3) Execute a software reset while the DS Rumble Pak is rumbling.		
Pass / Fail Determination	Passes if the rumbling stops instead of continuing.		
Software to be Inspected	Tests (1) through (3) is for software that supports DS Rumble Paks. Test (2) is for software that supports Sleep Mode. Test (3) is for software that supports software resets.		

Test Number	DS 2-6	Category	DS Rumble Paks
Guideline Number	2.4.1.6 Using the Rumble Pak with the Microphone **[Required]**		
Overview	If the DS Rumble Pak rumbles while the microphone is in use, the sounds caused by the rumbling might be picked up by the microphone. Therefore, the microphone and the Rumble Feature must not be used at the same time.		
Test Procedure	Use the microphone during the game.		
Pass / Fail Determination	Passes if the DS Rumble Pak does not rumble.		
Software to be Inspected	Software that supports both the DS Rumble Pak and the microphone.		

2.3. Backup Memory

Test Number	DS 3-1	Category	Backup Memory
Guideline Number	2.5.1 Restriction on Library Use **[Required]**		
Overview	Operations are not guaranteed if you do not use a version of the NITRO-SDK that supports the backup memory.		
Test Procedure	Perform a check using the Nintendo DS Master ROM Submission Sheet and the DS-MRC (Master ROM Checker).		
Pass / Fail Determination	(1) For access to 4K, 64Kbit EEPROM, NITRO-SDK 2.0 PR2 or later must be used. (2) For access to 512Kbit EEPROM, NITRO-SDK 2.1 plus2 patch or later must be used. (3) For access to 256Kbit FRAM, NITRO-SDK 2.2 release version or later must be used. (4) For access to 2Mbit FLASH, NITRO-SDK 2.0 PR5 or later must be used. (5) For access to 4Mbit FLASH, NITRO-SDK 3.0 RC3 plus1 patch or later must be used. (6) For access to 8Mbit FLASH, NITRO-SDK 3.1 RC or later must be used. (7) For access to the GBA Game Pak's 256Kbit SRAM/FRAM and 512Kbit,1Mbit FLASH, NITRO-SDK 3.1 release version or later must be used.		
Software to be Inspected	(1) Software that supports 4Kbit or 64Kbit EEPROM as backup memory. (2) Software that supports 512Kbit EEPROM as backup memory. (3) Software that supports 256Kbit FRAM as backup memory. (4) Software that supports 2Mbit FLASH as backup memory. (5) Software that supports 4Mbit FLASH as backup memory. (6) Software that supports 8Mbit FLASH as backup memory. (7) Software that supports GBA Game Pak's 256Kbit SRAM/FRAM and 512Kbit or 1Mbit FLASH backup memory.		

Test Number	DS 3-2	Category	Backup Memory
Guideline Number	2.5.3 Default Settings for Backup Memory **[Required]**		
Overview	There is no guarantee that the backup memory will always have the same factory setting (currently “FFh”). Therefore, an initialization must be performed before the first save occurs. Avoid displaying any error messages as part of the factory settings so that players do not presume that they have a faulty product.		
Test Procedure	Change all backup memory values to “FFh”, “00h”, or randomly generated, incremental data as appropriate, and start the game.		
Pass / Fail Determination	Passes if the game can properly proceed to the point of the first save. *and* Passes if misleading error messages are not displayed for the backup data that is part of the factory settings. Both conditions must be met.		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-3	Category	Backup Memory
Guideline Number	2.5.4 Backup Memory Life **[Required]**		
Overview	EEPROM and FLASH memory have rewrite limitations. To ensure that a game will play for a sustained period of time, avoid excessive or unnecessary deletions or writes to the backup memory.		
Test Procedure	Play the game and count the number of writes to the backup memory.		
Pass / Fail Determination	Use the following values as a guide when targeting one-year lifetimes: 4K, 64K, 512K EEPROM: 250 times in 10 minutes 2M, 4M, 8M FLASH: 25 times in 10 minutes 256K FLASH: 2,500,000 times in 10 minutes Passes if the rewrite frequency does not exceed the values above.		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-4	Category	Backup Memory
Guideline Number	2.5.6 Backup Data Reliability **[Required]**		
Overview	The backup data can be corrupted for reasons other than damage to the memory device or the fact that it has reached the end of its working lifetime. For example, the user may handle the backup data in an inappropriate way or some unexpected accident may occur, such as the power shutting off during rewriting of data. Given these possibilities, measures need to be implemented to deal with corrupted data.		
Test Procedure	Turn the power OFF while writing backup data and restart the game.		
Pass / Fail Determination	Passes if the program does not exhibit unusual behavior.		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-5	Category	Backup Memory
Guideline Number	2.5.8 Display a Message When Backup Data is Corrupted **[Recommended]**		
Overview	If corrupted data are not recoverable, do not simply delete the data automatically since this may confuse the player. Instead, display an error message informing the player about the data corruption.		
Test Procedure	Follow the procedures described in Test “DS 3-4” and reload the corrupted data.		
Pass / Fail Determination	Passes if an error message is displayed when the loaded data is detected as corrupted data. A suitable message is “The <Game Title> data is corrupted and will be deleted.”		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-6	Category	Backup Memory
Guideline Number	2.5.9 Removing Corrupted Backup Data **[Required]**		
Overview	There is no need to retain corrupted data, so when corrupted backup data are detected destroy the data by either deleting or overwriting with valid data.		
Test Procedure	Follow the procedure described in Test Number “DS 3-4,” delete backup data, and restart the game.		
Pass / Fail Determination	Passes if the backup data is deleted or overwritten by valid backup data.		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-7	Category	Backup Memory
Guideline Number	2.5.10.1 Display Conditions **[Required]**		
Overview	If the write time exceeds 0.5 seconds (guideline), the game must display a message that notifies the player that the system is writing data. This message prevents the player from turning the power OFF while data is being written.		
Test Procedure	Play the game and save data from the game.		
Pass / Fail Determination	Passes if a message indicating the game is saving is displayed while the game is writing to memory. The message may be displayed longer than the write time to allow the player to read it easily.		
Software to be Inspected	Software that requires 0.5 seconds or longer when writing data.		

Test Number	DS 3-8	Category	Backup Memory
Guideline Number	2.5.10.2 Display Time **[Required]**		
Overview	If the write time is at least 0.5 seconds, the player might turn the power OFF while the system is writing data. Therefore, a message that indicates that the system is writing data must be displayed continuously on the screen.		
Test Procedure	Play the game and save data from the game.		
Pass / Fail Determination	Passes if the power is turned OFF immediately after the display stops and the data is not corrupted. The message may be displayed longer than the write time to allow the player to read it easily.		
Software to be Inspected	Software that requires 0.5 seconds or longer when writing data.		

Test Number	DS 3-9	Category	Backup Memory
Guideline Number	2.5.10.3 Animation Display **[Required]**		
Overview	When a message is displayed to indicate that the system is writing data for a period of time that exceeds 5 seconds, the player may mistakenly assume that the system has locked up. It is recommended that an animation be included in the displayed message. Note that the write period will change according to the amount of data that is being written.		
Test Procedure	Play the game and save data from the game.		
Pass / Fail Determination	Passes if the game does not remain stagnant for more than 5 seconds during a write process.		
Software to be Inspected	Software that requires 5 seconds or longer when writing data.		

Test Number	DS 3-10	Category	Backup Memory
Guideline Number	2.5.11 Caution Before Writing to Backup Memory **[Recommended]**		
Overview	If data cannot be written to backup memory due to faulty Game Card connection or similar reason, that data cannot be saved even if the player continues the game. Therefore, confirm that data can be written normally to backup memory by reading data with the Read function before attempting to Write. If an error is returned, stop gameplay and display the message “The save data could not be accessed. Please turn the power off and reinsert the DS Card.”		
Test Procedure	**Note:** Use IS-NITRO-EMULATOR (reproduction of this situation is currently very difficult when using actual Nintendo DS systems). While the Game Card Slot power is ON during program execution, intentionally induce a faulty Game Card connection by unplugging it. Allow the program to proceed to immediately before writing data to backup memory and execute a program that writes data in the state previously described.		
Pass Fail Determination	Passes if the message given in the overview is displayed and the game does not continue.		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-11	Category	Backup Memory
Guideline Number	2.5.13 Caution about Reading from Backup Memory **[Required]**		
Overview	The player cannot play using backup data if data in backup memory cannot be read due to a faulty connection of the Game Card or for another reason. For this reason, always check whether or not the Game Card can be accessed normally by using the Read function at time of game startup to read 1 byte and checking the return value. In fact, always check the return value of the Read function even when reading backup data during gameplay. 1) At time of game startup: Allow the application to start and at the earliest point possible leading up to the title screen display the message “The save data could not be accessed. Please turn the power off and reinsert the DS Card.” Do not allow the game to proceed. 2) During gameplay: If an error is returned as the return value when attempting to read backup data, display the message “The save data could not be accessed. Please turn the power off and reinsert the DS Card.” Do not allow the game to proceed.		
Test Procedure	**Note:** Use the IS-NITRO-EMULATOR (reproduction of this situation is currently very difficult when using actual Nintendo DS systems). While the Game Card Slot power is ON during program execution, intentionally induce a faulty Game Card connection by unplugging it. Check the timing for both 1. and 2., which are described in the “Overview” for this test.		
Pass / Fail Determination	Passes if the message given in the overview is displayed and the game does not proceed.		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-12	Category	Backup Memory
Guideline Number	2.5.14 Verification of the DS Card Backup Memory **[Required]**		
Overview	If the data from backup memory cannot be read because the Game Card has a faulty connection or for some other reason, the player will not be able to play the game using the backup data. For this reason, use the Read function when starting the game to read at least 1 byte from the Game Card and check the return value to make sure the Game Card can be accessed normally. If backup memory cannot be read, do not proceed with the game and as early as possible – when the application starts up and before the title screen appears -- display a message informing the player “The save data could not be accessed. Please turn the power off and reinsert the DS Card.”		
Test Procedure	**Note:** Use IS-NITRO-EMULATOR, since reproducing this problem with an actual Nintendo DS is difficult. While the program is running, and with power ON to the card slot, intentionally create a faulty connection by not inserting a Game Card. Then start the game in this state.		
Pass / Fail Determination	Passes if the message given in the “Overview” of this test is displayed and the game does not proceed.		
Software to be Inspected	Software that supports backup memory.		

Test Number	DS 3-13	Category	Backup Memory
Guideline Number	2.5.15 Overwriting Backup Memory on DS Game Cards **[Recommended]**		
Overview	When the player is allowed to manually delete backup data, display a confirmation message and get the player's acknowledgment in order to avoid mistakenly deleting data.		
Test Procedure	The game actually continues.		
Pass Fail Determination	Passes if the confirmation message is displayed when backup data is about to be deleted.		
Software to be Inspected	Devices with onboard backup memory.		

Test Number	DS 3-14	Category	Backup Memory
Guideline Number	2.5.16 Overwriting Backup Memory on GBA Game Paks **[Required]**		
Overview	While a DS game is being played, ensure that data is not rewritten to a GBA Game Pak without the user's permission. Also, ensure that the GBA game can be played on the Nintendo DS system in GBA Mode and on Game Boy Advance after the rewrite.		
Test Procedure	1. Play the game until you reach a stage where the backup data of a supported GBA Game Pak can be rewritten. 2. After rewriting, play the rewritten Game Pak on a GBA and a DS in GBA Mode.		
Pass Fail Determination	Passes if all of the following are true. 1. If there is no display indicating that rewriting is in progress, after playing the game, backup data of GBA Game Pak is the same as it was before starting the DS game. Make sure that data is not rewritten without permission. 2. In the case of a rewrite, if the Game Pak data rewrite confirmation screen appears, but no rewrite is performed, the player did not allow rewrite. Therefore, GBA Game Pak data will be the same as before the DS game was started. 3. After completing the rewrite, the game can be played with Game Boy Advance and Nintendo DS in GBA Mode.		
Software to be Inspected	Devices with onboard backup memory, GBA Game Pak.		

2.4. IPL

Test Number	DS 4-1	Category	IPL
Guideline Number	3.1.2 Use of User Names and Comments **[Required]**		
Overview	If the game uses the IPL User Name and User Comment, you must ensure that the characters are not corrupted. If the game displays alternate characters for characters not provided in the game, it should not use symbols, white spaces, or characters with a different meaning that could result in a misunderstanding.		
Test Procedure	Set user names and comments registered in the IPL and then play the game.		
Pass Fail Determination	Passes if no problems occur on screens where the user name and user comment are used.		
Software to be Inspected	Software that supports user names and user comments.		

Test Number	DS 4-2	Category	IPL
Guideline Number	3.1.3 Display of User Names and Comments **[Recommended]**		
Overview	When displaying substitute characters for characters not available in the game, do not cause misunderstanding by using symbols, white spaces, or characters that might have different meanings.		
Test Procedure	Register the user names and comments in the IPL using characters that cannot be displayed by the game, and then proceed with the actual game.		
Pass Fail Determination	Passes if, when user names and comments are used, the displayed substitute characters are not symbols, white spaces, or characters that might have different implications.		
Software to be Inspected	Software that supports user names and user comments.		

Test Number	DS 4-3	Category	IPL
Guideline Number	3.2.3.1 Support of Turning Back the Time and Date **[Required]**		
Overview	The IPL can freely change both the date and the time. Therefore, there is no guarantee that the time will be ahead of the time when the game was last played. The game should work properly even if the date or time is turned back.		
Test Procedure	Change the IPL clock setting so that the date or time reverts back.		
Pass / Fail Determination	Passes if the game plays normally.		
Software to be Inspected	All.		

Test Number	DS 4-4	Category	IPL
Guideline Number	3.2.3.2 Offset Value Handling **[Required]**		
Overview	A game must be playable even when it is played on different Nintendo DS systems. The progress of the game must not be impeded if the game is stopped on a Nintendo DS and continued on a different Nintendo DS.		
Test Procedure	Play the game using different Nintendo DS systems.		
Pass / Fail Determination	Passes if the game plays normally on the various DS systems.		
Software to be Inspected	All.		

Test Number	DS 4-5	Category	IPL
Guideline Number	3.3.1 Banner Display Verification on the IPL Screen **[Required]**		
Overview	The IPL screen must display a banner. The banner must include the game icon, the game title, the subtitle (if applicable), and the publisher's name. You must display a banner in each of the language sections, but you do not have to display the banners in the specified language unless it is a supported language.		
Test Procedure	Change the IPL language setting.		
Pass / Fail Determination	Passes if ALL of the following conditions are met. If all the languages that are supported in the game are displayed in that language. If the game does not support the language that is selected in the IPL, the banner must be displayed in the primary language for that market. The banner in each language must not be corrupted and must remain within the limits of the screen. All characters displayed are permissible under the IPL Banner Guidelines. When the game title (and the subtitle) is made up of a total of one line, include the publisher on the second line. When the game title (and the subtitle) is made up of a total of two lines, include the publisher on the third line.		
Software to be Inspected	All.		

Test Number	DS 4-6	Category	IPL
Guideline Number	3.3.2 IPL Banner in Regional Languages **[Recommended]**		
Overview	The IPL screen must display a banner. The banner must include the game icon, the game title, the subtitle (if applicable), and the publisher's name. You must display a banner in each of the language sections, but you do not have to display the banners in the specified language unless it is a supported language.		
Test Procedure	Change the IPL language setting.		
Pass / Fail Determination	Passes if ALL of the following conditions are met. If all the languages that are supported in the game are displayed in that language. If the game does not support the language that is selected in the IPL, the banner must be displayed in the primary language of that market. The banner in each language must not be corrupted and must remain within the limits of the screen. All characters displayed are permissible under the IPL Banner Guidelines. When the game title (and the subtitle) is made up of a total of one line, include the publisher on the second line. When the game title (and the subtitle) is made up of a total of two lines, include the publisher on the third line.		
Software to be Inspected	All.		

Test Number	DS 4-7	Category	IPL
Guideline Number	3.3.3 Single-Card Play Banner Display **[Required]**		
Overview	In Single-Card Play, you must display a banner that shows a game icon, game title name, and a simple game description on the Download Confirmation screen. **Note:** Refer to the IPL Banner Guidelines.		
Test Procedure	Change the IPL language settings for the parent and the child device.		
Pass / Fail Determination	Passes if all of the following conditions are met: A language supported in the parent game appears on the child device. The characters are not corrupted and stay within the bounds for each language. All characters displayed are permissible under the IPL Banner Guidelines.		
Software to be Inspected	Software that supports Single-Card Play.		

2.5. Input Devices

Test Number	DS 5-1	Category	Device Input
Guideline Number	4.1.3 Unused Buttons **[Required]**		
Overview	You must ensure that the pressing of buttons that are not used in a game will not adversely affect the Nintendo DS system.		
Test Procedure	While a game is in progress, press any button that is not used.		
Pass / Fail Determination	Passes if there is no response when unused buttons are pressed and if you can continue normal gameplay.		
Software to be Inspected	All.		

Test Number	DS 5-2	Category	Device Input
Guideline Number	4.2.4 Prohibition of Stylus-Only Interfaces **[Recommended]**		
Overview	Do not employ an interface that requires compulsory use of the stylus, except in special circumstances.		
Test Procedure	For example, in situations where the player simply needs to choose YES or NO, do not create a specification that requires the entry be defined in units of just several dots. The exception would be situations such as where pressing specific locations on the screen measured in units of several dots is the way the game itself is played.		
Pass / Fail Determination	Passes if you can play the game using your finger.		
Software to be Inspected	Software that supports the Touch Screen.		

Test Number	DS 5-3	Category	Device Input
Guideline Number	4.2.5 Active Area of the Stylus **[Required]**		
Overview	Take into consideration that the tip of the stylus is round and that there are variations in the Nintendo DS system. Ensure that no selection requires a user to point to an area that is within 4 dots from the edges of the frame.		
Test Procedure	Play the game.		
Pass / Fail Determination	Passes if you can select every option using the stylus.		
Software to be Inspected	Software that supports the Touch Screen.		

Test Number	DS 5-4	Category	Device Input
Guideline Number	4.3.4 Preventing Acoustic Feedback **[Required]**		
Overview	Do not record voice input from the microphone and play back that recorded voice at the same time, since it can lead to audio feedback.		
Test Procedure	Use the microphone.		
Pass Fail Determination	Passes if the speakers do not simultaneously play back voice input from the microphone when the microphone is being used to record that voice.		
Software to be Inspected	Software that supports the microphone.		

Test Number	DS 5-5	Category	Input Device
Guideline Number	4.3.5 User Feedback for the Microphone Input State **[Recommended]**		
Overview	An unsuccessful microphone input may give a misperception of a problem with the DS system to the user. An implementation of a mechanism where the user can assess the microphone input state is recommended.		
Test Procedure	Play the game, test using a feature like a microphone test mode, and after determining the appropriate level, make a microphone input in the game at the equivalent level.		
Pass Fail Determination	Passes if the microphone operates without any problem.		
Software to be Inspected	Software that supports the microphone		

Test Number	DS 5-6	Category	Device Input
Guideline Number	4.4.1 Open/Close Detection Function **[Required]**		
Overview	The frequent opening and closing of the system can damage or shorten the life of the Nintendo DS system. Do not use the action of opening and closing of the Nintendo DS system as a game input.		
Test Procedure	According to Nintendo DS specifications, when a magnet is placed near the X Button, the DS enters the same state as when the cover is closed. Taking advantage of this specification, place a magnet near the X Button of the DS to emulate closing the cover. To emulate opening the cover, move the magnet away from the X Button.		
Pass / Fail Determination	Passes if the opening and closing of the Nintendo DS system is not recognized as game input, as described in the guidelines.		
Software to be Inspected	All.		

Test Number	DS 5-7	Category	Device Input
Guideline Number	4.5.1 Device Input when the DS is Closed **[Required]**		
Overview	There is no guarantee that only inputs from the L and R Buttons will be detected when the Nintendo DS system is closed. Ensure that the progress of the game will not be adversely affected if there are any key inputs from buttons other than the L and R Buttons.		
Test Procedure	Perform the device input supported by the game with the Nintendo DS system closed. According to Nintendo DS specifications, when a magnet is placed near the X Button, the DS enters the same state as when the cover is closed.		
Pass / Fail Determination	Passes if you can determine that there are no problems with the gameplay.		
Software to be Inspected	Software that supports LCD (or Backlight) OFF.		

Test Number	DS 5-8	Category	Device Input
Guideline Number	4.5.3 Animation Display when Device Input is Offline **[Recommended]**		
Overview	When there is no response to inputs from the buttons, the Touch Screen, or the microphone for more than 5 seconds, it is recommended that you display an animation on the screen to prevent the player from mistakenly thinking that the system has locked up.		
Test Procedure	Play the game.		
Pass / Fail Determination	Passes if an animation is displayed 5 seconds after the Nintendo DS system has stopped accepting any inputs from the input devices.		
Software to be Inspected	All.		

Test Number	DS 5-9	Category	Device Input
Guideline Number	4.5.4 Ignore IPL Button and Touch Screen Input During Game Start **[Recommended]**		
Overview	After a Nintendo DS game is selected and started from the IPL screen, if a button or the Touch Screen is pressed for a long time, the value of the button or the Touch Screen may be reflected in the game when the game starts. Ensure that this does not occur.		
Test Procedure	After a game is selected and started from the IPL screen, press a button or the Touch Screen during the transition from the IPL screen to a game screen where input is accepted.		
Pass / Fail Determination	Passes if the input value is not reflected in the game when the game starts.		
Software to be Inspected	All.		

2.6. Power Management

Test Number	DS 6-1	Category	Power Management
Guideline Number	5.2.1 Active Mode to Sleep Mode Transitions **[Required]**		
Overview	The Nintendo DS should only transition from Active Mode to Sleep Mode when someone closes the Nintendo DS.		
Test Procedure	Play the game and close the Nintendo DS while the game is in progress. According to Nintendo DS specifications, when a magnet is placed near the X Button, the DS enters the same state as when the cover is closed.		
Pass / Fail Determination	Passes if the Nintendo DS does not transition to Sleep Mode while the system is open and if the power lamp blinks slowly when the Nintendo DS is closed.		
Software to be Inspected	Software that supports transition to Sleep Mode when the DS system is closed.		

Test Number	DS 6-2	Category	Power Management
Guideline Number	5.2.2 Sleep Mode to Active Mode Transitions **[Required]**		
Overview	The only times the DS should transition from Sleep Mode to Active Mode is when the DS is opened, when the RTC alarm feature is used, or when the Game Card is removed. If the RTC alarm feature is being used, the DS can transition from Sleep Mode temporarily to Active Mode even when the DS is closed. However, once the transition to Active Mode and after the prescribed process is performed, the state must transition back to Sleep Mode if the DS remains closed.		
Test Procedure	(1) While in Sleep Mode, perform button input and remove the Game Pak. (2) Open a DS that is in Sleep Mode. (3) Set the RTC alarm and transition from Sleep Mode to Active Mode. Leave the DS closed. For closing and opening the DS, see the test procedure in Test Number DS 5-6.		
Pass / Fail Determination	Passes if the following conditions are met: (1) The power indicator LED remains in a slow-blinking state. (2) The game can resume immediately after the DS is opened. (3) After a prescribed process the state transitions to Sleep Mode.		
Software to be Inspected	For (1) through (3), software that supports transition to Sleep Mode when the DS is closed. For (3), software that supports use of the RTC alarm while DS is in Sleep Mode.		

Test Number	DS 6-3	Category	Power Management
Guideline Number	5.2.3 Mode Transitions During Backup and Communication **[Required]**		
Overview	Because the battery can die and the DS Card/Game Pak can be removed during Sleep Mode, the unit should not transition to Sleep Mode while saving backup data or during communication until the rewrite or communication process has completed.		
Test Procedure	(1) Close the DS during the rewrite of backup data, and confirm the backup data afterward. (2) For the test procedure during communications, see “DS 7-4” and “DS 7-5”. For closing and opening the DS, see test procedure (i) of “DS 5-6.”		
Pass / Fail Determination	Passes if the backup data has not been corrupted.		
Software to be Inspected	(1) Software that supports transition to Sleep Mode when the DS is closed, and that supports backup memory. (2) Software that supports transition to Sleep Mode when the DS is closed, and that supports either DS Wireless Communications or PictoChat Search.		

Test Number	DS 6-4	Category	Power Management
Guideline Number	5.3.1 Transitions Caused by Opening/Closing the DS **[Required]**		
Overview	When Sleep Mode is not in use, the LCD must be turned OFF when the Nintendo DS is closed. If the LCD is OFF when the DS is closed, the DS should enter the LCD ON state when the DS is opened. However, in cases in which the LCD cannot be turned off, such as when sound is still coming out of the speakers when the Nintendo DS is closed, turn the backlight OFF.		
Test Procedure	Close and open a Nintendo DS while a game is in progress. According to Nintendo DS specifications, when a magnet is placed near the X Button, the DS enters the same state as when the cover is closed.		
Pass / Fail Determination	Passes if the LCD turns from OFF to ON when you open the Nintendo DS.		
Software to be Inspected	Software that supports LCD or backlight OFF when the Nintendo DS system is closed.		

Test Number	DS 6-5	Category	Power Management
Guideline Number	5.3.3.1 Transitions to LCD OFF State **[Required]**		
Overview	If you implement the feature that automatically turns the LCD OFF and if there is no button input for a specified period of time, it is recommended that you provide an option that enables or disables the LCD OFF feature.		
Test Procedure	Enable this feature, set time limit, and leave the system alone for the set amount of time.		
Pass / Fail Determination	Passes if ALL of the following conditions are observed: If the initial value of LCD OFF is set to OFF If there is an option for turning the value of LCD OFF to either ON or OFF If the LCD turns OFF at the specified time		
Software to be Inspected	Software that supports automatically turning the LCD OFF.		

Test Number	DS 6-6	Category	Power Management
Guideline Number	5.3.3.2 Transitions from LCD OFF State **[Required]**		
Overview	When the LCD turns OFF, a player might mistakenly think that the system is malfunctioning. Therefore, the player must be able to turn the system ON by pressing any button.		
Test Procedure	Set an automatic LCD OFF time and leave the system alone for the set time. Perform each of the following tests after the LCD turns OFF: 1. Press any button 2. Touch the Touch Screen		
Pass / Fail Determination	Passes if the LCD turns ON for either test 1 or test 2.		
Software to be Inspected	1, 2. Software that supports automatically turning the LCD OFF. 2. Software that supports automatically turning the LCD OFF and which supports the Touch Screen.		

Test Number	DS 6-7	Category	Power Management
Guideline Number	5.4.2 Microphone **[Required]**		
Overview	It takes as long as three seconds for the microphone circuitry to attain stable operations. During this time the microphone's sampling results must be destroyed and not reflected in the game.		
Test Procedure	There is no way to test this with a Nintendo DS, so determine in your program source that the sampling data from the microphone does not become reflected in the game until three seconds have passed.		
Pass / Fail Determination	Passes if the microphone power is turned ON at least three seconds before it is used in a game scene.		
Software to be Inspected	Software that supports the microphone.		

Test Number	DS 6-8	Category	Power Management
Guideline Number	5.5.2 Automatically Switching the Backlight On and Off **[Required]**		
Overview	The backlight must not be switched on and off automatically unless one of the following cases applies: When turning off the backlight on a screen that is not used. When turning off the backlight temporarily to save power (the backlight must turn ON if there is any button or Touch Screen input.) When turning off the backlight only when the DS is closed.		
Test Procedure	Prepare a DS with the backlight settings on and play a game.		
Pass / Fail Determination	Passes if the backlight does not turn ON/OFF automatically except in those cases given in the overview.		
Software to be Inspected	All.		

Test Number	DS 6-9	Category	Power Management
Guideline Number	5.5.3 Do not Allow Game Player to Turn Backlight Off **[Required]**		
Overview	Do not implement a feature that allows the backlight to be turned off during gameplay by the player, with the exception of when the Nintendo DS system is closed.		
Test Procedure	Play the game.		
Pass / Fail Determination	Passes if the player cannot turn the backlight off, except when closing the DS or in cases explained in Test DS 6-8.		
Software to be Inspected	All.		

Test Number	DS 6-10	Category	Power Management
Guideline Number	5.6.1 Power Conservation when the DS is Closed **[Required]**		
Overview	When the DS is closed, you must transition to the Sleep Mode, LCD OFF, or Backlight OFF state. It is preferred that you transition to Sleep Mode, which conserves the most power.		
Test Procedure	Close the DS. To learn more about opening and closing the DS, see DS 5-6.		
Pass / Fail Determination	Passes if the DS moves to the most effective of the three states mentioned in the Overview for this test when it is closed.		
Software to be Inspected	All.		

Test Number	DS 6-11	Category	Power Management
Guideline Number	5.8.1 Prohibition for Nintendo DS System Automatic Power-Down **[Required]**		
Overview	If the application turns off power on the Nintendo DS, it should do so only after receiving permission from the player. Also, the player should have the option of canceling the power-off after selection, given that he/she may have selected it in error.		
Test Procedure	Select the command that turns off the power for the Nintendo DS.		
Pass Fail Determination	The player should see a confirmation screen and have the ability to cancel power-off.		
Software to be Inspected	Software that can turn the power of the Nintendo DS system OFF.		

2.7. DS Wireless Communications

Test Number	DS 7-1	Category	DS Wireless Communications
Guideline Number	6.1.3 State Immediately after Game Startup **[Required]**		
Overview	DS Wireless Communications must not be turned ON automatically when the game starts. The player must explicitly enable DS Wireless Communications before DS Wireless Communications is turned ON.		
Test Procedure	Start the game.		
Pass / Fail Determination	Passes if the power lamp is not blinking at a variable rate.		
Software to be Inspected	Software that supports DS Wireless Communications or PictoChat Search.		

Test Number	DS 7-2	Category	DS Wireless Communications
Guideline Number	6.1.4 DS Wireless Communications ON State **[Required]**		
Overview	When using DS Wireless Communications, inform the player that DS Wireless Communications will be used, and obtain consent from the player before switching communications on. In addition, once you have returned to the OFF state from the ON state, you must obtain the player's confirmation in order to switch communications on again.		
Test Procedure	・Turn ON DS Wireless Communications. ・Turn ON DS Wireless Communications, then turn it OFF temporarily with a communications error or by exiting the scenario that uses the communications. After that, turn DS Wireless Communications back on.		
Pass / Fail Determination	Passes if the player can confirm the choice of enabling DS Wireless Communications beforehand and that communications will be switched on using either one of the following: A confirmation message The DS Wireless icon The system does not enter into communications without the player's consent.		
Software to be Inspected	Software that supports DS Wireless Communications or PictoChat Search.		

Test Number	DS 7-3	Category	DS Wireless Communications
Guideline Number	6.1.4.2 Icon Confirmation **[Required]**		
Overview	Displaying the DS Wireless Icon specified by Nintendo indicates that DS Wireless Communications is ON. Therefore, when actually using the icon, absolutely no modifications such as changing the color or size should be made to it. However, it is fine to add some effects as long as the player does not get confused and if the associated menu items are deselected.		
Test Procedure	Select a menu item used to start DS Wireless Communications.		
Pass / Fail Determination	Passes if the icon that is supplied by Nintendo is displayed properly. These icons are found in the NitroSDK "data" directory.		
Software to be Inspected	Software that supports DS Wireless Communications or PictoChat Search.		

Test Number	DS 7-4	Category	DS Wireless Communications
Guideline Number	6.1.5.1 Transitioning from Active Mode to Sleep Mode **[Required]**		
Overview	When the Nintendo DS is in the communications mode, always turn DS Wireless Communications OFF when changing from Active Mode to Sleep Mode as the behavior is not guaranteed. **Note:** This item is covered as "information" in *Nintendo DS Programming Guidelines*, but it is given a **[Required]** level of importance because it is an important guideline related to other guidelines.		
Test Procedure	While the Nintendo DS is in the DS Wireless Communications mode, close the system to switch the system into the Sleep Mode. According to Nintendo DS specifications, when a magnet is placed near the X Button, the DS enters the same state as when the cover is closed.		
Pass / Fail Determination	The power indicator LED should blink slowly and it should not blink at variable rate when the Nintendo DS is opened again. The game must not transmit any communications to other devices.		
Software to be Inspected	Software that supports DS Wireless Communications or PictoChat Search, and which transitions to Sleep Mode when the Nintendo DS system is closed.		

Test Number	DS 7-5	Category	DS Wireless Communications
Guideline Number	6.1.5.2 Transitioning from Sleep Mode to Active Mode **[Required]**		
Overview	When returning from Sleep Mode to Active Mode, DS Wireless Communications must remain OFF until the player explicitly acknowledges switching. **Note:** This item is covered as "information" in *Nintendo DS Programming Guidelines*, but it is given a **[Required]** level of importance because it is an important guideline related to other guidelines.		
Test Procedure	Move from Active Mode to Sleep Mode while DS Wireless Communications is ON. Then move from Sleep Mode back to Active Mode. According to Nintendo DS specifications, when a magnet is placed near the X Button, the DS enters the same state as when the cover is closed.		
Pass / Fail Determination	Passes if - The power light is not blinking at a variable rate *and* - After transition, if DS Wireless Communications is turned ON, "DS7-2" is observed.		
Software to be Inspected	Software that supports DS Wireless Communications or PictoChat Search, and which transitions to Sleep Mode when the Nintendo DS system is closed.		

Test Number	DS 7-6	Category	DS Wireless Communications
Guideline Number	6.1.8 Channels Scanned when Operating as a Child Device **[Required]**		
Overview	There is no guarantee that the approved channel combinations, including those for compatible models, will stay the same in the future. All approved wireless channels will be the test target when scanning the parent from the child of DS Wireless Communications.		
Test Procedure	1. Generate a noise using the WMTestTool in all approved channels except for one. Enable DS Wireless Communications at the given channel. 2. Start communication using the software being tested. Perform communication using the specified channel, and verify the successful connection. 3. Perform steps 1 and 2 for all other approved channels.		
Pass Fail Determination	Passes if the connection is successful at all approved wireless channels.		
Software to be Inspected	Software that supports DS Wireless Communications.		

Test Number	DS 7-7	Category	DS Wireless Communications
Guideline Number	6.2.1 Reception Strength Icon **[Required]**		
Overview	You must use icons that are provided by Nintendo to display the reception signal strength when data is received while DS Wireless Communications is used.		
Test Procedure	Use DS Wireless Communications and move the Nintendo DS systems apart until the wireless signal is no longer received.		
Pass / Fail Determination	Passes if the Signal Strength icons that appear correspond to the reception strength. The icons displayed must be those provided by Nintendo. These icons can be found in the NitroSDK “data” directory.		
Software to be Inspected	Software that supports DS Wireless Communications.		

Test Number	DS 7-8	Category	DS Wireless Communications
Guideline Number	6.3.3 Message Display for Broken Links **[Required]**		
Overview	When communications are lost, you must display a message that indicates that an error has occurred.		
Test Procedure	Turn OFF DS Wireless Communications from a parent and a child while DS Wireless Communications is in progress.		
Pass / Fail Determination	Passes if a message is displayed informing the players that a communication error has occurred.		
Software to be Inspected	Software that supports DS Wireless Communications		

Test Number	DS 7-9	Category	DS Wireless Communications
Guideline Number	6.3.7 GGID Application **[Required]**		
Overview	You can only use GGIDs supplied by Nintendo.		
Test Procedure	Confirm the GGID using the `WMTestTool` included in the Nitro SDK.		
Pass / Fail Determination	Passes if the GGID matches the one that was distributed by Nintendo.		
Software to be Inspected	Software that supports DS Wireless Communications.		

Test Number	DS 7-10	Category	DS Wireless Communications
Guideline Number	6.3.8 TGID Used in Single-Card Play **[Required]**		
Overview	When the Parent Device temporary group ID (TGID) does not change from one session to the next, the Single-Card Play child device will not update its parent device information. For this reason, ensure that a Single-Card Play parent device is assigned a different TGID value not only each time it starts communications, but also each time it starts up.		
Test Procedure	1. Become a Single-Card Play parent. 2. Using the `WMTestTool`, confirm the parent's TGID. 3. Turn off the parent's power, restart, and become a Single-Card Play parent. 4. Using the `WMTestTool`, confirm the parent's TGID.		
Pass / Fail Determination	The TGIDs obtained in Steps 2 and 4 should be different values.		
Software to be Inspected	Software that supports DS Single-Card Play.		

Test Number	DS 7-11	Category	DS Wireless Communications
Guideline Number	6.3.9 Prohibition of Connecting to Other Publishers' Software **[Required]**		
Overview	Without the approval of Nintendo, game software developers must not develop games that have the ability to connect to game software titles from other companies.		
Test Procedure	Attempt to connect to any game software title from another company.		
Pass / Fail Determination	Passes if no connection is possible.		
Software to be Inspected	Software that supports DS Wireless Communications.		

Test Number	DS 7-12	Category	DS Wireless Communications
Guideline Number	6.3.10 Connection between Different Remastered Versions **[Required]**		
Overview	Ensure that even if a remastered version of a game changes, it will still be possible to connect to a user who has a previous remastered version of the game.		
Test Procedure	Try to communicate using different remastered versions of the same game.		
Pass / Fail Determination	Passes if the two versions of the game can connect as though they are the same version of the game.		
Software to be Inspected	Software that supports DS Wireless Communications, and for which a remastered version is incremented.		

Test Number	DS 7-13	Category	DS Wireless Communications
Guideline Number	6.3.11 When Too Many Game Players Attempt to Connect **[Required]**		
Overview	It is possible that more children will attempt to connect than the number of children that are supported by the game.		
Test Procedure	Perform DS Wireless Communications with “supported systems + 1.”		
Pass / Fail Determination	Passes if the excess children are told that their attempt to connect has failed.		
Software to be Inspected	Software that supports DS Wireless Communications.		

Test Number	DS 7-14	Category	DS Wireless Communications
Guideline Number	6.3.12 Access to Game Cards During Single-Card Play **[Required]**		
Overview	A child started up in DS Single-Card Play is prohibited from accessing DS Cards from other Publishers.		
Test Procedure	Start Single-Card Play while a DS Game Card and a GBA Game Pak/DS Option Pak from another company is connected.		
Pass / Fail Determination	Passes if there is no access to other publishers' DS Cards. To determine whether the DS Card has been accessed, compare the gameplay contents when no DS Card is connected and when a DS Card from another publisher is connected.		
Software to be Inspected	Software that supports Single-Card Play.		

Test Number	DS 7-15	Category	DS Wireless Communications
Guideline Number	6.3.13 Process for Terminating Children After Ending Single-Card Play **[Recommended]**		
Overview	After Single-Card Play finishes, if the child device is not performing any independent processes, the child device must display a message to indicate that it is about to power down. After the player acknowledges that message, the child device should power down.		
Test Procedure	Properly terminate Single-Card Play.		
Pass / Fail Determination	Passes if a message that indicates that the child device is about to power down is displayed to the player and the power is turned OFF after the player acknowledges that message.		
Software to be Inspected	Software whose child device does not perform any independent processes after Single-Card Play finishes.		

Test Number	DS 7-16	Category	DS Wireless Communications
Guideline Number	6.3.16 Check the Wireless State Before Beginning Parent Device Operation **[Recommended]**		
Overview	Check each channel's wireless state using `WM_MeasureChannel`. We recommend that you try to select any channels that are not in use.		
Test Procedure	1. Run `WMTestTool` on two Nintendo DS systems, and then generate noise on any two of the usable channels (1, 7, and 13). 2. Start up another Nintendo DS system as a parent device, separate from the two Nintendo DS systems generating noise. 3. Run `WMTestTool` on yet another Nintendo DS system, and then check the wireless channel that the parent device from step 2 has initiated DS Wireless Communications. 4. After the check in step 3, change the channels on the two Nintendo DS systems which are generating noise.		
Pass Fail Determination	・Generating noise on channels 1 and 7: The parent device in the DS Wireless Communications will use channel 13. ・Generating noise on channels 1 and 13: The parent device in the DS Wireless Communications will use channel 7. ・Generating noise on channels 7 and 13: The parent device in the DS Wireless Communications will use channel 1. Passes if all of the above conditions are met.		
Software to be Inspected	Software that supports DS Wireless Communications.		

Test Number	DS 7-17	Category	DS Wireless Communications
Guideline Number	6.3.17 Update Display for Parent Information **[Recommended]**		
Overview	When a game displays a list of parent devices on a child device, the child device must check for parent device information and update the list of parent devices. If a parent device has stopped accepting additional child devices, the parent device should not be displayed.		
Test Procedure	When a child device is displaying a list of parent devices, increase the number of parent devices. When a child device is displaying a list of parent devices, set one of the parent devices to stop accepting child devices.		
Pass / Fail Determination	Passes if available parent device information is updated on the child devices list screen.		
Software to be Inspected	Software that supports display of an onscreen list of DS Wireless Play parent devices.		

Test Number	DS 7-18	Category	DS Wireless Communications
Guideline Number	6.3.20 Prohibition Against Notification of Data Distribution Support by DS Download Stations **[Recommended]**		
Overview	If the game supports data distribution from DS Download Station, we recommend that you do not inform users of this feature by announcing it on the game screen or the documents that come bundled with the game. This is because in some cases consumers will purchase the game after the promotion is over and they will not be able to use the service.		
Test Procedure	Operate the game in a mode that uses DS Wireless Communications and observe how the game behaves.		
Pass Fail Determination	Passes if the user is **not** informed in any way about support for data distribution from DS Download Station.		
Software to be Inspected	Software that supports data distribution from DS Download Station.		

Test Number	DS 7-19	Category	DS Wireless Communications
Guideline Number	6.5.1 Auto-Save for Chance Encounter Mode Communication **[Recommended]**		
Overview	When automatically saving during Chance Encounter Communication while the Nintendo DS system is closed, it is impossible for the player to know when saving is occurring. For this reason, there is a chance of problems such as turning off power or removing the DS Game Card while data is being saved and thus destroying the data. To automatically save data during Chance Encounter Communication, display a message that informs the player “Automatic save”, “Data cannot be saved if the power is turned off or Game Card is removed carelessly.” before this mode is entered.		
Test Procedure	Enter Chance Encounter Communication mode.		
Pass Fail Determination	Passes if a message such as given in the overview of this test is displayed when the mode is entered.		
Software to be Inspected	Software that implements automatic save functionality for Chance Encounter Communication.		

2.8. PictoChat Search

Test Number	DS 8-1	Category	PictoChat Search
Guideline Number	6.4.1 Starting PictoChat Search **[Required]**		
Overview	Because PictoChat Search uses the wireless functionality, to turn the feature ON, always confirm with the player.		
Test Procedure	Actually play the game and proceed to a point where the PictoChat Search feature can be selected.		
Pass Fail Determination	Passes if all these conditions are met: PictoChat Search should happen only when the player selects “Search for PictoChat”. Before the player selects the menu that turns on the feature, the player should see the DS Wireless Icon or a confirmation message. When the feature is turned on, the power indicator LED should blink at a variable rate. When the feature is turned off, the power indicator LED should stop blinking.		
Software to be Inspected	Software that supports PictoChat Search.		

Test Number	DS 8-2	Category	PictoChat Search
Guideline Number	6.4.2 LED Variable Rate Blinking **[Required]**		
Overview	Because PictoChat Search utilizes DS Wireless Communications, blink the power indicator LED at a variable rate so the player knows that the feature is ON.		
Test Procedure	Play the game and explicitly select "Search PictoChat."		
Pass Fail Determination	Passes if the power indicator LED blinks at a variabe rate when PictoChat Search is turned ON and remains lit when PictoChat Search is turned OFF.		
Software to be Inspected	Software that supports PictoChat Search.		

Test Number	DS 8-3	Category	PictoChat Search
Guideline Number	6.4.3 Chat Icon **[Required]**		
Overview	The icon displayed when PictoChat is detected must be the icon designed for this purpose that is supplied by Nintendo. There should not be any changes to the size or color of the icon. However, it is all right to add effects to the icon such as blinking without any changes to the design, or to display the icon in black and white or in a smaller size when the PictoChat room cannot be found, as long as the effect does not confuse the player. Also, if a sound is played when the icon is displayed, the sound source supplied by Nintendo should be used.		
Test Procedure	1. Turn on PictoChat Search and perform PictoChat locally. 2. After implementing the procedure in step 1, listen for the sound when the chat icon is displayed.		
Pass Fail Determination	The Chat Icon supplied by Nintendo should be displayed. If a sound is played, the sound source specified by Nintendo should be used.		
Software to be Inspected	1. and 2. Software that supports PictoChat Search. 2. Software that supports PictoChat Search and supports sound playback.		

Test Number	DS 8-4	Category	PictoChat Search
Guideline Number	6.4.5.4 Power-Down Process when Transitioning to PictoChat **[Required]**		
Overview	After detecting a PictoChat, the Nintendo DS that detected the PictoChat must turn off its power to transition to PictoChat. However, when turning off power from the application, the following should be noted: Confirm with the player that it is OK to turn off the power. If backup memory is supported, confirm with the player whether backup data will be rewritten. When confirming, give the player the option of canceling.		
Test Procedure	Detect PictoChat.		
Pass Fail Determination	After detection, the power should be turned off only after meeting the three requirements mentioned in “Overview” of this test.		
Software to be Inspected	Software that supports Nintendo DS Power OFF functionality.		

2.9. Other

Test Number	DS 9-1	Category	Other
Guideline Number	7.2.1 Compliance with Legal Rights Display **[Required]**		
Overview	If items are used in libraries, tools, or other similar areas for which a legal rights display is required, the rights must be displayed using the specified method.		
Test Procedure	1. Refer to descriptions of each library tool. 2. Compare with Nintendo DS Master ROM Submission Guidelines.		
Pass / Fail Determination	Passes if both steps 1 and 2 are performed.		
Software to be Inspected	All.		

Test Number	DS 9-2	Category	Other
Guideline Number	7.2.2 Display of License for Licensee Titles Outside of Japan **[Required]**		
Overview	All licensee titles that are destined for use outside Japan must display a "Licensed by Nintendo" message before the game starts.		
Test Procedure	Start up the game and confirm that the license information is displayed before the game starts, for example between the opening and the title screen.		
Pass / Fail Determination	Passes if “Licensed by Nintendo” is displayed for at least one second, during which time no key input is accepted.		
Software to be Inspected	Licensee game titles that are destined for use outside of Japan.		

Test Number	DS 9-3	Category	Other
Guideline Number	7.3 Prohibition of Health and Safety Warning Screen Display by Application **[Required]**		
Overview	When the DS starts up, a health and safety warning screen is always displayed. The warnings presented on this warning screen are intended to be inclusive of the content of the warnings included in the game's Instruction Booklet. Therefore, the application must not display a warning screen .		
Test Procedure	Start the game.		
Pass / Fail Determination	Passes if, during game play, no health and safety warning screen is displayed .		
Software to be Inspected	All.		

Test Number	DS 9-4	Category	Other
Guideline Number	7.4 Image Methods for Photosensitivity **[Recommended]**		
Overview	Excessive image or light blinking should be avoided.		
Test Procedure	Play the game.		
Pass / Fail Determination	Passes if there is no conflict with the Photosensitivity Guidelines outlined in paragraph 7.4 of *Nintendo DS Programming Guidelines*.		
Software to be Inspected	All.		

Test Number	DS 9-5	Category	Other
Guideline Number	7.6.1 Software Reset Button Definition **[Required]**		
Overview	If a software reset is implemented, it must only occur when the START, SELECT, L Button, and R Button are pressed at the same time. No other combination of buttons may cause a reset to occur.		
Test Procedure	1. During a game, press the combination of START, SELECT, L Button, and R Button. 2. Press button combinations other than the combination that is described in item 1.		
Pass / Fail Determination	Passes if the Pass/Fail determination criteria for both test 1 and test 2 are fulfilled: 1. A software reset occurs. 2. A software reset does not occur, and the game continues normally.		
Software to be Inspected	Software that supports software reset functionality.		

Test Number	DS 9-6	Category	Other
Guideline Number	7.6.2 Reset During Backup and Communication **[Required]**		
Overview	If a software reset occurs while the Nintendo DS system is writing to the backup memory or while communication is in progress, the Nintendo DS system must not reset immediately; it must reset after the appropriate processes have finished.		
Test Procedure	1. Implement a software reset while writing to the backup memory. 2. Implement a software reset while communication is in progress.		
Pass / Fail Determination	Passes if each are fulfilled: 1. Backup data is not corrupted. 2. The other communications parties receive a link broken message.		
Software to be Inspected	1 and 2 Software that supports software reset functionality. 1. Software that supports backup memory. 2. Software that supports DS Wireless Communications.		

Test Number	DS 9-7	Category	Other
Guideline Number	7.6.3 Prohibit Resets on Child Devices During DS Single-Card Play **[Required]**		
Overview	The reset feature should not be implemented for the child in DS Single-Card Play.		
Test Procedure	Perform a software reset on the child system in DS Single-Card Play.		
Pass / Fail Determination	Passes if the game advances without stopping or hanging.		
Software to be Inspected	Software that supports software reset and DS Single-Card Play.		

Test Number	DS 9-8	Category	Other
Guideline Number	7.7.1 Name Consistency **[Required]**		
Overview	Naming for the Nintendo DS system, system parts, operations, peripherals, and all other items must follow “Nintendo DS Terminology.”		
Test Procedure	Align manuals and game content using the most recent version of “Nintendo DS Terminology.”		
Pass / Fail Determination	Passes if the names that are used match the names that are defined in “Nintendo DS Terminology.” For reasons of space or design, you can use images of objects if they resemble the actual object.		
Software to be Inspected	All.		

Test Number	DS 9-9	Category	Other
Guideline Number	7.8.1 Demo Screen Looping **[Required]**		
Overview	Because stores use looped demo screens, ensure that the loops can run for at least 24 hours without problems.		
Test Procedure	Leave the demo screen running for 24 hours.		
Pass / Fail Determination	Passes if you can play the game normally after leaving it running for 24 hours.		
Software to be Inspected	All.		

Test Number	DS 9-10	Category	Other
Guideline Number	7.9.1 NITRO-SDK Version Used in the Master ROM **[Required]**		
Overview	Operations are not guaranteed if a supported version of NITRO-SDK is not used.		
Test Procedure	Confirm with the items in Nintendo DS Master ROM Submission Sheet and the DS-MRC (Master ROM Checker).		
Pass / Fail Determination	NITRO-SDK versions: - If 2007/09/03 or after: Passes if version is 3.2 release version Plus patch2 or later. - Refer to the Software VersionTable available on Warioworld to check for the latest information.		
Software to be Inspected	All.		

Test Number	DS 9-11	Category	Other
Guideline Number	7.9.2 Master ROM Compile Target **[Required]**		
Overview	The submitted Master ROM must be built with Master ROM as the compile target.		
Test Procedure	Check the Master ROM using the DS-MRC (Master ROM Checker) version 1.11 and later.		
Pass Fail Determination	Passes if “NINTENDO DEBUG” is not displayed in the DS-MRC middleware display column.		
Software to be Inspected	All.		

Test Number	DS 9-12	Category	Other
Guideline Number	Check Stereo Sound. **[Required]**		
Overview	The Nintendo DS system plays sound in stereo. Ensure that stereo sound is clearly emitted from the left and the right channels.		
Test Procedure	Listen alternately to each speaker. Listen with stereo headphones.		
Pass / Fail Determination	Passes if stereo sound is emitted from both the speaker and the stereo headphones.		
Software to be Inspected	All.		

Test Number	DS 9-13	Category	Other
Guideline Number	Displaying Logo when Using VX Middleware **[Required]**		
Overview	When you are using “VX Middleware for Nintendo DS”, you must display the logo provided as early as possible after the game starts. **Note:** The logo image is included in the library package.		
Test Procedure	Start the game.		
Pass Fail Determination	Passes if the logo provided is displayed as early as possible before the title screen is displayed and if no changes have been made to the original logo, including size and color.		
Software to be Inspected	Software that supports VX Middleware.		

Test Number	DS 9-14	Category	Other
Guideline Number	Logo Display when Using the ATOK Library **[Required]**		
Overview	If "ATOK for Nintendo DS" is being used, the ATOK logo must be displayed when the credits roll at the end of the game. Note: The logo image is included in the library package.		
Test Procedure	Play the game until the very end.		
Pass Fail Determination	Passes if the prescribed logo is displayed when the credits roll at the end.		
Software to be Inspected	Software that supports ATOK. However, this excludes software that does not roll credits at the end of the game.		

2.10. Applicable for Nintendo Titles

Test Number	DS 10-1	Category	Applicable for Nintendo Titles
Guideline Number	8.1.1 Implementation of an Incremental Display Feature for the Microphone Input State **[Required]**		
Overview	Titles published by Nintendo must implement a feature to display the microphone input state incrementally during gameplay regardless of the use of the microphone input.		
Test Procedure	1. Select a mode to switch to the microphone test, or simultaneously press the A Button, B Button, X Button, and Y Button when the game is started. 2. Confirm the messages that are displayed when switching to the microphone test. 3. Speak into the microphone.		
Pass / Fail Determination	1. Switch to the microphone test. 2. A message is displayed stating “Speak in the direction of the DS microphone.” 3. The microphone input level can be measured in five levels. Passes if steps 1 through 3 are all fulfilled.		
Software to be Inspected	Software that uses the microphone and will be published by Nintendo.		