

Nintendo Wi-Fi Connection NITRO-DWC Programming Manual

Download Edition

Version 1.0.1a

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Table of Contents

1	Introduction	6
2	Overview	7
2.1	Structure of the Download Server	7
2.2	Content Confidentiality	8
2.3	Content Attributes	9
2.4	Features of the DWC Download Library	9
2.5	Sample Program	10
3	Accessing Nintendo Wi-Fi Connection	11
3.1	Initialization	11
3.2	Creating User Data	11
3.3	Connection Process	11
3.3.1	Connecting to the Internet	11
3.3.2	Log in to the Nintendo Authentication Server	11
3.4	Monitoring Communication Status	12
3.5	Disconnecting from the Internet	12
4	Downloads	13
4.1	Initialization	13
4.2	Extracting Files by Specifying Attributes	14
4.3	Downloading Files	15
4.4	Cancellation Process	16
4.5	Checking Progress of the Download	17
4.6	Terminating the Library	18
5	Content Management	19
5.1	Connecting to the Nintendo Wi-Fi Connection Download Server Management Screen	19
5.2	Download Server Management Screen	19
5.2.1	Information	20
5.2.2	Administration Menu	20
5.2.3	Notifications from Nintendo	20
5.3	Content Management Screen	21
5.3.1	New Registration	21
5.3.2	Registration Status	22
5.4	Change Administrative Password Screen	23
5.4.1	Changing Passwords	23
5.5	Get Statistics Log File Screen	24
5.5.1	Statistics Log File	24

5.6	Recent Log of Connection Tests Screen	25
5.6.1	Recent Connection Tests Log	25

Code

Code 4-1	Initializing the DWC Download Library	13
Code 4-2	Specifying Attributes.....	14
Code 4-3	Downloading a File	15
Code 4-4	Cancellation Process	16
Code 4-5	Checking the Progress of the Download	17
Code 4-6	Process for Terminating the Library	18

Tables

Table 2-1	Examples of Attribute Comparisons.....	9
Table 2-2	Content for the Sample Program	10
Table 5-1	Menu Content of the Content Management Screen	22

Figures

Figure 2-1	Schematic of Server Structure	7
Figure 2-2	Access Restricted with a Password	8
Figure 4-1	Using File-to-Get Attributes to Limit What Is Acquired	15
Figure 5-1	Download Server Management Screen	19
Figure 5-2	Content Management Screen	21
Figure 5-3	Change Administrative Password Screen	23
Figure 5-4	Get Statistics Log File Screen	24
Figure 5-5	Recent Log of Connection Tests Screen.....	25

Revision History

Version	Revision Date	Description
1.0.1a	2007/04/27	Corrected typographical errors and changed dates to international format.
1.0.1	2006/10/5	Corrected mistakes in 3.3.2.
1.0.0	2006/07/21	Revised descriptions of provisional operations to match those of real operations.
0.9.1	2006/06/30	Added descriptions specific to the download functionality dedicated package.
0.9.0	2006/06/06	Initial Version.

1 Introduction

This manual focuses on the Nintendo Wi-Fi Connection Download Service. The Nintendo Wi-Fi Connection Download Service encompasses content management from a PC, using the Web as well as the use of the NITRO-DWC Download library to download content from a Nintendo DS system.

The following features are provided in the Nintendo WFC download service.

- Communicate securely using HTTPS
- Attach attributes in order to extract files
- Attach explanatory text for downloadable games
- Specify the date and time when downloads are possible
- Restrict access points from which downloads are possible
- Register files as large as 1 megabyte
- Register as many as 100 separate sets of content

The following procedure is required to use the Nintendo Wi-Fi Connection Download Service.

1. Contact support@noa.com, then submit the application form
2. Get a Game Code and game password for connecting to and accessing the download server from a Nintendo DS.
3. Get a URL for the Content Management screen, an account name, and an administrative password.

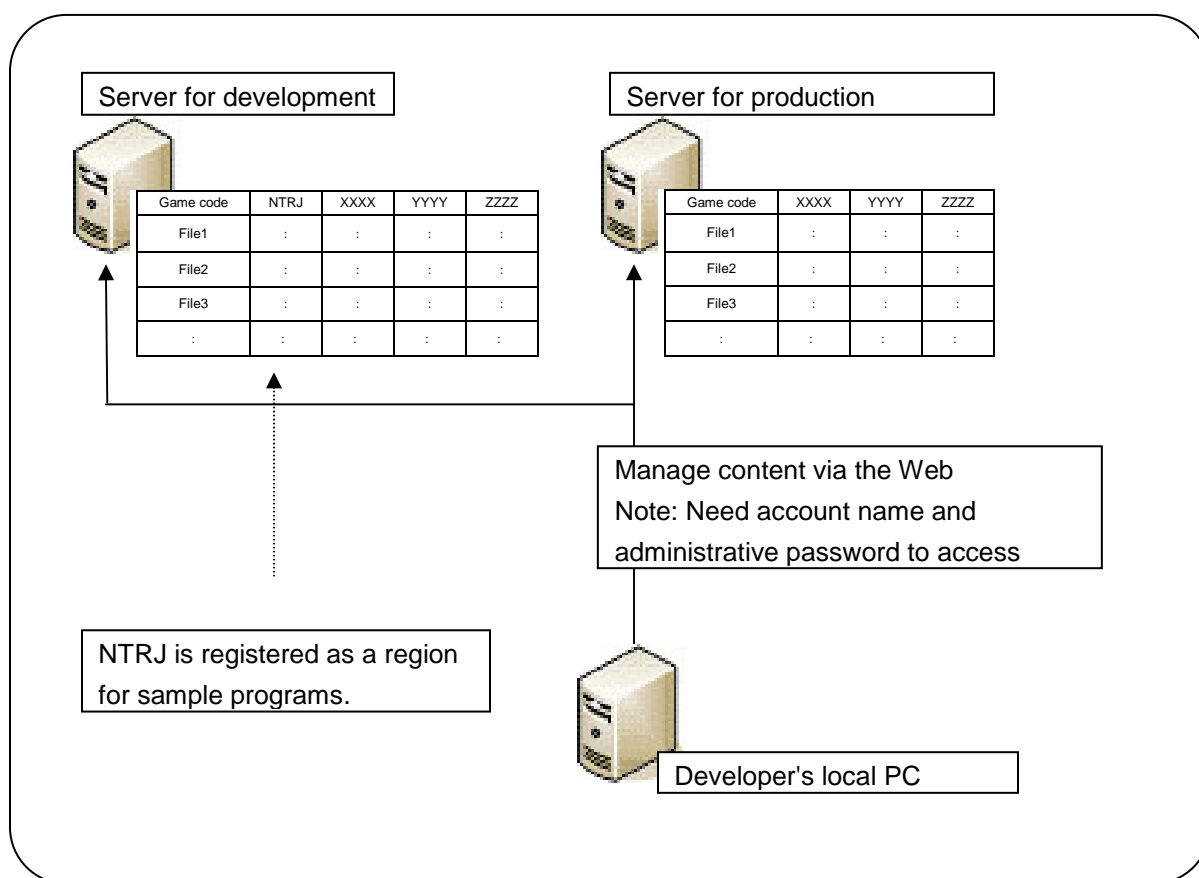
2 Overview

This chapter presents a general overview of the Nintendo Wi-Fi Connection Download Service.

2.1 Structure of the Download Server

The download server for registering content is divided into a development server and a production server, as shown in Figure 2-1. Use the development server to develop and debug code, and the production server for the production version ROM. You switch between servers from the DS based on the setting in the `DWC_SetAuthServer` function.

Figure 2-1 Schematic of Server Structure

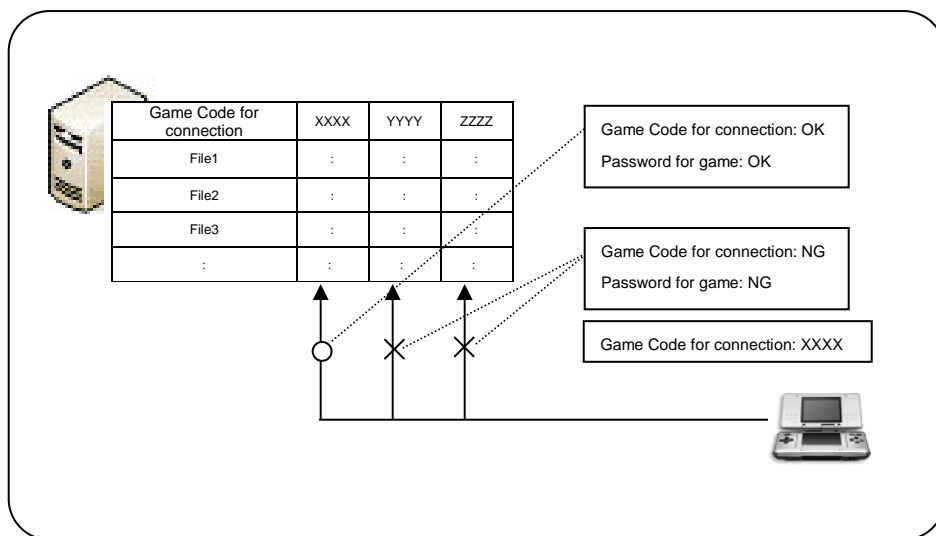


After you have applied to use the Nintendo Wi-Fi Connection Download Service, you will be assigned disk space and a management screen on each server for every game. Content is registered via the Web by connecting to this management screen. To access this screen, you need to use the URL, account name, and administrative password provided by Nintendo.

2.2 Content Confidentiality

The disk space for registering games is divided up by the connection-use game codes. In order to protect the confidentiality of each game, there is also a game-use password that restricts access when connecting to the download server from the DS. The game-use password is supplied by Nintendo after you have applied to use the Nintendo Wi-Fi Connection Download Service.

Figure 2-2 Access Restricted with a Password



Note: Different game titles can share the same disk space by using the same connection-use Game Code and game-use password.

2.3 Content Attributes

Up to the three attributes can be attached to content registered in the download server. These attributes are called “content attributes.” The attributes specified on the DS side for getting files are called “file-to-get attributes.” The content attributes and the file-to-get attributes are compared to determine which file lists and files can be downloaded. By controlling these attributes, you can filter and restrict the content that is available.

The comparison follows these rules.

- A file is downloadable if the content attributes and the file-to-get attributes match fully
- If the file-to-get attributes are NULL strings, all files are unconditionally downloadable

Table 2-1 provides some examples of how content attributes and file-to-get attributes combine to determine what can be downloaded. Note that two adjacent quotes “” in the table denote the NULL string.

Table 2-1 Examples of Attribute Comparisons

Example Number	Content Attributes			File-to-Get Attributes			Remarks
	1	2	3	1	2	3	
1	"A"	"B"	"C"	"A"	"B"	"C"	Complete match, so downloadable.
2	"A"	"B"	"C"	"	"	"	Attributes 1, 2, 3 are ignored, so downloadable.
3	"A"	"B"	"C"	"	"B"	"C"	Attribute 1 is ignored and attributes 2 and 3 match, so downloadable.
4	"A"	"B"	"C"	"	"1"	"	Attributes 1 and 3 are ignored but attribute 2 does not match, so not downloadable.
5	"	"B"	"C"	"A"	"B"	"C"	Attribute 1 does not match, so not downloadable. Note: If a content attribute is the NULL string, the corresponding file-to-get attribute must also be the NULL string in order for them to match.

2.4 Features of the DWC Download Library

The NITRO-DWC download library (the function group with names starting with DWC_Nd) lets you perform the following.

- Set the file-to-get attributes
- Get the number of files
- Get the file list
- Download files
- Check the progress of the download

2.5 Sample Program

The connection-use Game Code for the sample program is "NTRJ." The content for the sample program is registered on the development server (see Table 2-2).

Starting the sample program activates the Settings utility. It is here that you set the access point for the connection.

Once the Settings utility is completed, the connection to the Internet begins. After the connection is established, use `DWC_NdSetAttr` to set the file-to-get attributes. After the attributes are set, they are compared and a list of downloadable files is obtained from the server.

Select a file from the list to begin downloading that file.

Table 2-2 Content for the Sample Program

File Name	File Size in Bytes	Attribute 1	Attribute 2	Attribute 3
64k.txt	65536	a		
64k_2.txt	65536	a	b	
128k.txt	131072	a	b	c
128k_2.txt	131072	b		
256k.txt	262144	b	b	
256k_2.txt	262144	b	b	c
512k.txt	524288	c		
512k_2.txt	524288	c	b	
1024k.txt	1048576	c	b	c

3 Accessing Nintendo Wi-Fi Connection

When the download dedicated package (hereafter, DWC-DL) is used, there is no need for items such as user data, friend relationship structures, associations with the Nintendo DS system and Game Card. As a result, the procedure when connecting to the Internet is much simpler than it is with the normal DWC package. Use this chapter as a reference when accessing Nintendo Wi-Fi Connection using DWC-DL.

When not using DWC-DL, please refer to the *Nintendo Wi-Fi Connection NITRO-DWC Programming Manual*.

3.1 Initialization

As with the normal DWC package, when using DWC-DL the `DWC_Init` function performs the initialization. In addition, use the `DWC_SetMemFunc` function to set all the functions that will allocate/deallocate memory used by the DWC library, overall.

3.2 Creating User Data

There is no need to create user data with the DWC-DL.

3.3 Connection Process

With DWC-DL, the process for accessing Nintendo Wi-Fi Connection is divided into the following two phases.

- Connect to the Internet (make a Nintendo Wi-Fi Connection and get an IP address)
- Log in to the Nintendo authentication server

3.3.1 Connecting to the Internet

The connection is made in the same way as with the normal DWC package.

3.3.2 Log in to the Nintendo Authentication Server

When logging in to the Nintendo authentication server, use the `DWC_NASLoginAsync` function, and not the `DWC_LoginAsync` function. (There is no need to initialize matchmaking or friend relationship functionality with the `DWC_InitFriendsMatch` function.) After calling this function, call the `DWC_NASLoginProcess` function at a frequency of every game frame to advance the login process. When the `DWC_NASLoginProcess` function return value is `DWC_NAL_STATE_SUCCESS`, the login has completed.

Once the login has completed, perform the download processes as described in Chapter 4 Downloads.

3.4 Monitoring Communication Status

With the normal DWC package, communication status is monitored with the `DWC_ProcessFriendsMatch` function. However, as that function includes matchmaking and friend relationship functionality, it cannot be used with DWC-DL.

Instead, DWC-DL uses the `DWC_UpdateConnection` function to monitor communication status.

Once the log-in to the Nintendo authentication server has completed, call this function at a frequency of once per game frame.

3.5 Disconnecting from the Internet

Disconnection occurs in the same way as the normal DWC package.

4 Downloads

4.1 Initialization

After the Nintendo Wi-Fi Connection has been made and the authentication process completed, call the `DWC_NdInitAsync` function and initialize the DWC Download library, the group of functions that begin with `DWC_Nd` (see Code 4-1).

HTTP communications take place in the background during the initialization process, so be sure to give sufficient processing time for threads that have lower priority than the main thread during the process. When the initialization process has completed, the specified callback function gets called.

Note: The callback function specified here is shared as the callback by the processes that initialize the DWC Download library, get the number of files, get the file list, and download the files.

Code 4-1 Initializing the DWC Download Library

```
bool callback;
char gamecd[] = {"NTRJ"};           // Game code for connection
char passwd[] = {"ABCDEF"};         // Game-use password provided by Nintendo

void init_dwc_nd( void )
{
    callback = FALSE;
    if ( DWC_NdInitAsync( nd_callback, gamecd, passwd ) == FALSE )
    {
        disp_init_nd_error();        // Error processing
        return;
    }
    wait_callback();                 // Wait for callback
}

// The callback function
void nd_callback (DWCNdCallbackReason reason, DWCNdErr err, int servererr)
{
    callback = TRUE;
    switch ( reason )
    {
        // Callback at time of initialization process
        case DWC_ND_CBREASON_INITIALIZE:
            if ( err != DWC_ND_ERROR_NONE )
            {
                disp_init_nd_cb_error(); // Error processing
            }
    }
}
```

```
    }  
    break;  
    // Callback when getting number of file lists  
    case DWC_ND_CBREASON_GETFILELISTNUM:  
        :  
        :  
    }  
}
```

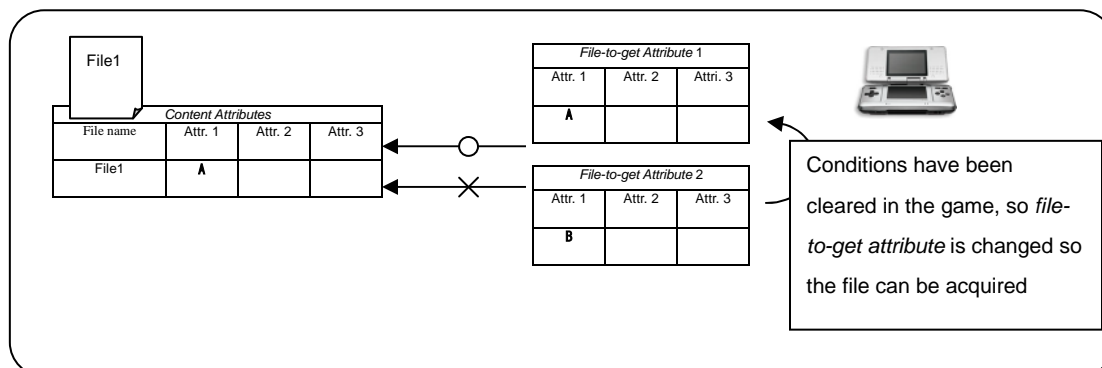
4.2 Extracting Files by Specifying Attributes

By using the `DWC_NdSetAttr` function to specify file-to-get attributes, you can extract certain kinds of files (see Code 4-2). Up to three attribute strings can be specified to extract files. If no attributes have been specified, all files will be treated as downloadable. The attribute string is a string of up to 10 ASCII characters ending with the NULL terminator.

Code 4-2 Specifying Attributes

```
char attr1[] = {"A"};  
char attr2[] = {"B"};  
char attr3[] = {"C"};  
  
void set_attr( void )  
{  
    if ( DWC_NdSetAttr( attr1, attr2, attr3 ) == FALSE )  
    {  
        disp_set_attr_error();           // Error processing  
    }  
}
```

By using this extraction process, you can set restrictions for when a file can be downloaded. For example, you can set attributes to only allow download after some event has occurred in the game, or after the player has reached a certain level in the game.

Figure 4-1 Using File-to-Get Attributes to Limit What Is Acquired

4.3 Downloading Files

Call the `DWC_NdGetFileListNumAsync` function to get the total number of files that can be downloaded. Call the `DWC_NdGetFileListAsync` function to get a partial list or a complete list of these downloadable files. The file list contains information on the file name, the explanatory text for the game, the attributes, and the file size. It also clearly shows the user which files can be downloaded.

To start downloading a file from the obtained file list, call the `DWC_NdGetFileAsync` function. Specify the file information structure (`DWCNdFileinfo`) representing the file you want to download as the function argument (see Code 4-3).

Code 4-3 Downloading a File

```
DWCNdFileinfo *info;
char          *buffer;

void get_file( void )
{
    int num, no;

    // Get the number of files
    callback = FALSE;
    if ( DWC_NdGetFileListNumAsync( &num ) == FALSE )
    {
        disp_get_filenum_error(); // Error processing
        return;
    }
    wait_callback(); // Wait for callback

    // Secure buffer for file list being obtained
    info = alloc_info_buffer(( sizeof( DWCNdFileinfo ) * num ));
```

```
// Get file list
callback = FALSE;
if ( DWC_NdGetFileListAsync( info, 0, num ) == FALSE )
{
    disp_get_filelist_error(); // Error processing
    return;
}
wait_callback(); // Wait for callback

// Select which file to get
no = select_download_file();
// Allocate buffer for file being gotten
buffer = alloc_file_buffer( info[no].size );

// Get the file
callback = FALSE;
if ( DWC_NdGetFileAsync( &info[no], buffer, info[no].size ) == FALSE )
{
    disp_get_file_error(); // Error processing
    return;
}
wait_callback(); // Wait for callback
}
```

4.4 Cancellation Process

The processes that initialize the library, get the number of files, get the file list, and download a file can all be canceled by calling the `DWC_NdCancelAsync` function (see Code 4-4).

Code 4-4 Cancellation Process

```
bool cancel; // TRUE entered on cancellation request from user

void wait_callback( void )
{
    cancel = FALSE;
    while( 1 )
    {
        if ( callback == TRUE ) break;

        // Cancellation process
        if ( cancel == TRUE )
        {
```

```
        if ( DWC_NdCancelAsync() == FALSE )
        {
            disp_cancel_error();          // Error processing
        }
        break;
    }

    // Wait for V-Blank.
    // During this wait process, you need to give threads that have
    // lower priority than the main thread sufficient processing time,
    // so use the OS_WaitVBlankIntr function or some other way.
    GameWaitVBlankIntr();
}
}
```

The cancellation process starts when the `DWC_NdCancelAsync` returns `TRUE`. After that, `error = DWC_ND_ERROR_CANCELED` is entered in the callback for the function whose process was cancelled.

4.5 Checking Progress of the Download

Use the `DWC_NdGetProgress` function to check on the progress of a download (see Code 4-5).

Code 4-5 Checking the Progress of the Download

```
void check_progress( void )
{
    u32 received,contentlen;

    if ( DWC_NdGetProgress( &received, &contentlen ) == TRUE )
    {
        OS_TPrintf( "Download %d/100¥n", ( received*100)/contentlen );
    }
}
```

4.6 Terminating the Library

Call the `DWC_NdCleanupAsync` function to terminate the DWC Download library. After the process of terminating the library has completed, the callback function specified in the argument of `DWC_NdCleanupAsync` is called (see Code 4-6).

Code 4-6 Process for Terminating the Library

```
BOOL cleanup;

void cleanup_dwc_nd ( void )
{
    cleanup = FALSE;

    DWC_NdCleanupAsync( nd_cleanup_callback );

    while( 1 )
    {
        if ( cleanup == TRUE ) break;

        // Wait for V-Blank.
        // During this wait process, you need to give threads that have
        // lower priority than the main thread sufficient processing time,
        // so use the OS_WaitVBlankIntr function or some other way.
        GameWaitVBlankIntr();
    }
}

void nd_cleanup_callback ( void )
{
    cleanup = TRUE;
}
```

5 Content Management

5.1 Connecting to the Nintendo Wi-Fi Connection Download Server Management Screen

Connect to the Nintendo Wi-Fi Connection Download Server Management screen (hereafter, the Download Server Management screen) in the following way.

1. Access the screen using a PC Web browser and the URL provided by Nintendo.
2. At the authentication screen, enter the account name and the administrative password provided by Nintendo. (You can change the password at the management screen.)

5.2 Download Server Management Screen

The following screen is displayed when you log in to the Download Server Management screen.

Figure 5-1 Download Server Management Screen

Nintendo Wi-Fi Connection Download Server Management Page

Model : NTR
Language : English
Time Zone : JST (GMT +0900)
Game Name : NOA
Game Code for Connection : LICE
Administrator : NOA <support@noa.com> You don't change your password between more than one month.
Now Date : 2007-02-20 11:33:22 (JST)
Last Login Date : 2006-09-21 18:00:50 (JST)
Last Login IP : 111.111.111.111

Management Menu

- [Contents Management](#)
- [Changing Password for Management Page](#)
- [Log file acquisition for statistics](#)
- [Refer to the recent log for connection-test](#)

News from Nintendo

- 2006/12/26 Today's maintenance has been completed. If you noticed any problems, please inform us. Thank you.
- 2006/12/20 Dec 26 17:00-18:00(JST), we plan to update the server program. At that time, our service might stop for a few minutes. Thank you for your patience.

Nintendo

5.2.1 Information

The following content is displayed on the Download Server Management screen.

- **Model:** The model of the target machine is displayed. RVL represents Wii and NTR represents DS.
- **Language:** Select the language for the management screen. Choose between Japanese and English.
- **Time Zone:** Select the time zone for the management screen to use.
- **Game Name:** Shows the name of the target game.
- **Game Code for Connection:** Shows the target connection Game Code.
- **Administrator:** Shows the name and e-mail address of the registered administrator.
- **Current Time/Date:** Shows the current time and date.
- **Last Login Date:** Shows the time and date in the specified time zone for the last time logged in.
- **Last Login IP:** Shows the IP address used the last time logged in.

5.2.2 Administration Menu

The following content is displayed in the Administration menu.

- **Content Management:** Link to the Content Management screen.
- **Change Admin Password:** Link to the Change Password screen.
- **Get Statistics Log File:** Link to the Get Statistics Log File screen. Note that this will appear only on production servers.
- **Link to Recent Log of Connection Tests:** Link to the Recent Log of Connection Tests screen.

5.2.3 Notifications from Nintendo

Notifications from Nintendo are shown here.

5.3 Content Management Screen

From this screen you can register downloadable content as well as check and configure that content.

Figure 5-2 Content Management Screen

Nintendo Wi-Fi Connection Download Server

Nintendo

Nintendo Wi-Fi Connection Download Management Page (Contents Management)

Game Name : NOA

[Register a new file] - Only up to 32 alphanumeric characters, hyphens, underbars and periods can be used for a filename (excluded a foldename). Special characters cannot be used.

Local file for Uploading

Browse...

Upload!!

[Contents List] - Contents become invalid when the sorting number is an initial value (0). The sorting rule for this screen can be changed by selecting the radiobutton. (Ascending order)

<input type="checkbox"/>	Filename (Up to 32 chars) <input type="radio"/>	Explanation for Game (Up to 50) <input type="radio"/>	Beginning Date (JST) <input type="radio"/>	Attr 1-3 (Up to 10 chars for each) <input type="radio"/>	Size <input type="radio"/>
<input checked="" type="checkbox"/>	Sorting number for Game <input checked="" type="radio"/>	Memo for Admin (Up to 100) <input type="radio"/>	End Date (JST) <input type="radio"/>	AP-type <input type="radio"/> AP-info (Up to 10 chars) <input type="radio"/>	Last Updated Date <input type="radio"/>

You want to have checked contents to,

Nintendo

5.3.1 New Registration

Use this to register content that can be downloaded.

Directly enter a filename for **File** or use the **Browse** button to choose a target file from the local PC, then press **Upload** to register content.

Do not exceed more than 100 items or file sizes greater than 1 Mbyte.

5.3.2 Registration Status

This displays a list of registered content.

From here you can change the settings of registered content or delete content. Simply check the box to the left of the content you want to change and press either **Update** or **Delete**.

Table 5-1 Menu Content of the Content Management Screen

	Description
File Name	The name of the file (up to 32 characters) to reference from the DS.
Game Sort Number	The sort order (ascending) of the file list reflected when the file list is obtained. Content is invalidated if 0 is specified.
Game Description	The description (up to 50 characters) that is obtained along with the file list. Referenced as a UTF-16LE character string.
Admin Comments	A comment field that the administrator is free to use.
Starting Date/Time Ending Date/Time	The valid period of the content, specified as <i>year-month-day hour:minute:second</i> . Note: "0000-00-00 00:00:00" is treated as if nothing has been set. If specified for the starting date/time, the valid period lasts until the ending date/time. If specified for the ending date/time, the valid period starts at the set starting date/time but has no expiration date/time.
Attributes	The content attributes. These are used as a filter when getting file lists and files. (See paragraph 2.3 Content Attributes.)
AP Type	This can be used to restrict the access points from which the content can be downloaded. Only the access points of the type specified (unrestricted, retail access point, hotspots) will allow connections to that type of access point for downloads.
AP Info	Only valid when retail access point is specified for AP Type. Based on information unique to retail access point, you can further refine from which retail access point downloads will be possible. Note: You should not normally set this. If this is needed within a game specification for some reason, contact support@noa.com first.
Size	The registered file size.
Date/Time of Last Update	The date/time when content was last updated.

5.4 Change Administrative Password Screen

From this screen you can change the password for the Download Server Administration screen.

Figure 5-3 Change Administrative Password Screen

The screenshot shows the 'Nintendo Wi-Fi Connection Download Management Page (Changing Password for Management Page)'. At the top, there is a blue header bar with the 'Nintendo Wi-Fi Connection' logo on the left and the 'Nintendo' logo on the right. Below the header, the page title is 'Nintendo Wi-Fi Connection Download Management Page (Changing Password for Management Page)'. The 'Game Name' is listed as 'NOA'. A message states: '[Password Changing] - This password is used to login to the Management Page.' Below this message is a form with three input fields: 'Old Password', 'New Password', and 'New Password (Confirmation)'. A 'Change!!' button is located at the bottom of the form.

Input password	
Old Password	<input type="text"/>
New Password	<input type="text"/>
New Password (Confirmation)	<input type="text"/>
<input type="button" value="Change!!"/>	

5.4.1 Changing Passwords

To change the password.

1. Enter the current password in the Old Password field.
2. Enter the new password in the New Password field.
3. Confirm the new password by entering it a second time in the New Password (Confirmation) field.
4. Click **Change** to change the password.

5.5 Get Statistics Log File Screen

In the Get Statistics Log File screen, you can get an access log (one tab-delimited text file per single day's activity) for the download server.

This page is for production servers only. It is not available on development servers.

Figure 5-4 Get Statistics Log File Screen

Nintendo Wi-Fi Connection Download Server Management Page (Log file acquisition for statistics)

Gama Name : NOA

[Log file for Statistics] - The log file of one file a day is generated according to the UTC time.

Log file list that can be downloaded

[2006-06-30](#) (1Lines, 175Bytes) - [2006-06-29](#) (1Lines, 175Bytes) - [2006-06-28](#) (500000Lines, 371726Bytes) - [2006-06-27](#) (1Lines, 175Bytes) - [2006-06-26](#) (1Lines, 175Bytes)
[2006-06-25](#) (1Lines, 175Bytes) - [2006-06-24](#) (1Lines, 175Bytes) - [2006-06-23](#) (1Lines, 175Bytes) - [2006-06-22](#) (1Lines, 175Bytes) - [2006-06-21](#) (1Lines, 175Bytes)

The log file of one file a day is generated according to the UTC time. The log file is compressed by zip-format.
 The content of the log file concerns the download processing of the file. The acquisition processing of the number of files and the list is not included.
 The log file is a text file delimited in the tab space. The line feed code is CR+LF. The explanation of each item is as follows.
 The display period (= preservation period) of the log file will be done in 30 days. Please download in the period and use it.

No.	Explanation
1	Game Code for Connection
2	Download Date (UTC)
3	Download Date (JST)
4	DS IP address
5	Production Code (Information from ROM Header)
6	Wi-Fi Connection ID
7	MAC address
8	Filename
9	Result code
10	AP-type (S : Wi-Fi Station, W : Wayport)
11	Request Attribute 1
12	Request Attribute 2
13	Request Attribute 3

Explanation of the major Result code		
Result code	Message	Cause
101	Invalid parameter	Parameter is invalid. (Included invalid User-Agent)
103	Invalid token	Token is invalid.
104	Token expired	Token expired. (Passage of 24H after generating token)
105	File not found	File does not exist.
106	Attribute differed	Attribute is not corresponding to server setting.
107	Contents expired	Contents expired.
108	Non-target AP	DS accesses from non-target AP.
110	Invalid password	Game password is invalid.

5.5.1 Statistics Log File

You can get a log file by clicking on the desired date in the list of downloadable log files.

Note: The content of the log file differs from that described in paragraph 5.6 Recent Log of Connection Tests Screen, and refers only to downloads. No log is kept of file list or file number get processes.

5.6 Recent Log of Connection Tests Screen

In the Recent Log of Connection Tests screen, you can see the fifty most recent log activities for server access.

Figure 5-5 Recent Log of Connection Tests Screen

Nintendo Wi-Fi Connection Download Server Management Page (Refer to the recent log for connection-test)

Game Name : NOA
Now Date : 2007-02-20 11:34:42 (JST)

[Recent Log for connection-test (0 Lines)] - The DS connection log within the current 24 hours is displayed by the reverse chronological order. (Up to 50 lines)

Reloading!!

Connect Date (JST)	DS IP addr	Conn-code	Prod-code	Wi-Fi Connection ID	MAC addr	Action-type	Filename	Res-code	offset/num	AP-param	Attr1	Attr2	Attr3
2006-07-21 14:40:06	222.222.222.222	AMBJ	AMBJ	1234567890000000	000%ef123000	Download	boot1	-	-/-	-	-	-	-
2006-07-21 14:39:29	222.222.222.222	AMBJ	AMBJ	1234567890000000	000%ef123000	List	-	-	-/-	-	-	-	-
2006-07-21 14:39:18	222.222.222.222	AMBJ	AMBJ	1234567890000000	000%ef123000	Num	-	-	-/-	-	-	-	-
2006-07-21 14:38:19	111.111.111.111	AMBJ	AMBJ	1234567890123000	000%ef123456	Download	boot1	-	-/-	Wi-Fi Station	-	-	-
2006-07-21 14:38:02	111.111.111.111	AMBJ	AMBJ	1234567890123000	000%ef123456	Download	-	101	-/-	Wi-Fi Station	-	-	-
2006-07-21 14:37:43	111.111.111.111	AMBJ	AMBJ	1234567890123000	000%ef123456	List	-	-	-/-	Wi-Fi Station	-	-	-
2006-07-21 14:37:30	111.111.111.111	AMBJ	AMBJ	1234567890123000	000%ef123456	Num	-	-	-/-	Wi-Fi Station	-	-	-

You want to have this page Reloading!!

5.6.1 Recent Connection Tests Log

The following content is displayed.

- **Connection Date/Time:** The date and time (JST or Japan Standard Time) of the connection
- **DS IP Address:** The IP address of the connecting DS
- **Connection Code:** The Game Code provided by Nintendo to connect to the download server
- **Product Code:** The Game Code provided by Nintendo
- **Nintendo Wi-Fi Connection ID:** The Nintendo Wi-Fi Connection ID of the connecting user
- **MAC Address:** The fixed MAC address of the connected DS
- **Action Type:**
 - Download:** a file download process
 - List:** the file list get process
 - Num:** the file number get process
- **File Name:** The name of the downloaded file
- **Result Code:** Error messages returned from the server. (For more information, see the description of primary result codes in the Get Statistics Log File screen.)
- **offset/num:** Parameters used when getting lists

- **AP Info:** Information for the connected access point
- **Attribute 1:** Attribute 1 of the retrieved file
- **Attribute 2:** Attribute 2 of the retrieved file
- **Attribute 3:** Attribute 3 of the retrieved file

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