

# mcs Library Release Notes

Version 1.0.4

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

**Confidential**

These coded instructions, statements, and computer programs contain proprietary information of Nintendo of America Inc. and/or Nintendo Company Ltd. and are protected by Federal copyright law. They may not be disclosed to third parties or copied or duplicated in any form, in whole or in part, without the prior written consent of Nintendo.

## Contents

---

1	About the mcs library .....	5
1.1	Features of the mcs Library .....	5
1.1.1	Stream Communications between PC and NITRO Hardware Using Multiple Channels .....	5
1.1.2	File Input/Output on PC.....	5
1.1.3	Outputting a Character String to the PC.....	5
1.2	Multi-Thread Operation .....	5
2	Major changes .....	6
2.1	Changes in the 09/01/2005 Version.....	6
2.1.1	DEBUGGER SHARING Support.....	6
2.2	Changes in the 03/28/2005 Version.....	6
2.2.1	Addition of Functions .....	6
2.2.2	Addition of Features .....	6
2.3	Changes in the 01/31/2005 Version.....	6
2.3.1	Changes to Function Behavior .....	6
2.3.2	Addition of Functions.....	6
2.3.3	Revision of Function Names .....	6
2.4	Changes in the 11/10/2004 version .....	7
2.4.1	Function Name Changes.....	7
2.4.2	Enhanced Features .....	7
2.5	Changes in the 09/02/2004 version .....	7
2.5.1	Changed Function Names.....	7
2.5.2	Changed Argument Types .....	7
3	Known Problems.....	7

## Revision History

Version	Revision Date	Description
1.0.4	08/26/2005	Added support for the 09/01/2005 version
1.0.2	03/18/2005	Added support for the 03/28/2005 version
1.0.0	01/24/2005	Added support for the 01/31/2005 version
0.3.0	10/28/2004	Added support for the 11/10/2004 version
0.2.1	10/12/2004	Added cautions about multi-thread operation
0.2.0	08/26/2004	Added support for the 09/02/2004 version (changed function names and argument types)
0.1.0	08/02/2004	Initial version.

# 1 About the mcs library

“mcs” is an abbreviation of “Multiple Channel Stream,” which provides functions that communicate between the Nintendo DS program and multiple Windows applications.

## 1.1 Features of the mcs Library

---

The following features are currently provided by the mcs library.

### 1.1.1 Stream Communications between PC and NITRO Hardware Using Multiple Channels

---

The mcs library provides a feature for stream communications using multiple channels between multiple Windows applications that run on the PC and programs that run on the Nintendo DS hardware.

### 1.1.2 File Input/Output on PC

---

The mcs library provides a feature that makes it possible to read/write files on Windows, and to enumerate files in directories.

### 1.1.3 Outputting a Character String to the PC

---

In the mcs library, a Windows application called the mcs server provides mcs features. The mcs library provides the functionality for outputting character strings from the Nintendo DS program to the console display of this mcs server.

## 1.2 Multi-Thread Operation

---

NITRO-System library is not designed to be thread-safe (supporting multi-thread). Therefore, when calling the mcs library API (with some exceptions) from the interrupt handler or a different thread, it may not operate normally.

## 2 Major changes

### 2.1 Changes in the 09/01/2005 Version

---

#### 2.1.1 DEBUGGER SHARING Support

---

DEBUGGER SHARING is supported with IS-NITRO-DEBUGGER version 1.56 and later.

### 2.2 Changes in the 03/28/2005 Version

---

#### 2.2.1 Addition of Functions

---

Added the `NNS_McsSeekFile` function, which changes the current file pointer position.

#### 2.2.2 Addition of Features

---

Made changes in the mcs server application so that the time interval for obtaining data from the Nintendo DS can be changed in the Options dialog box.

### 2.3 Changes in the 01/31/2005 Version

---

#### 2.3.1 Changes to Function Behavior

---

Until now, when the mcs server was not connected to the Nintendo DS hardware, the functions `NNS_McsOpenFile` and `NNS_McsFindFirstFile` were blocked until that connection was made. As of this version, if there is no connection, the functions will exit with an error.

#### 2.3.2 Addition of Functions

---

The following functions have been added:

- The functions `NNS_McsInitPrint`, `NNS_McsPutString`, and `NNS_McsPrintf`, to output character strings to the mcs server console.
- The function `NNS_McsIsServerConnect`, which determines the mcs server connection state.
- The function `NNS_McsGetServerErrorCode`, which gets the error code of the error which occurred in Windows during file input and output.

#### 2.3.3 Revision of Function Names

---

The function `NNS_McsUnregisterRecvResource` is now `NNS_McsUnregisterRecvResource`.

## 2.4 Changes in the 11/10/2004 version

---

### 2.4.1 Function Name Changes

---

Changed name of the function from `NNS_McsGetTotaStreamReadableSize` to `NNS_McsGetTotalStreamReadableSize`.

### 2.4.2 Enhanced Features

---

Made it possible to include PC environment variables in the file name patterns specified with the `NNS_McsOpenFile()` and `NNS_McsFindFirstFile()` functions.

## 2.5 Changes in the 09/02/2004 version

---

### 2.5.1 Changed Function Names

---

The function `NNS_McsGetStreamlReadbleSize` was changed to `NNS_McsGetStreamReadableSize`. Also, the function `NNS_McsGetTotaStreamlReadbleSize` was changed to `NNS_McsGetTotaStreamReadableSize`.

### 2.5.2 Changed Argument Types

---

Previously, the data transmission recognition value that can be determined by the user was type `u32`. However, since only 16 bits were valid, the type was changed to `u16`.

## 3 Known Problems

Currently there are no known problems.

Windows is a registered trademark or a trademark of Microsoft Corporation in the United States and other countries.

Other company names, product names, etc., are registered trademarks or trademarks of their respective companies.

© 2004-2005 Nintendo

The contents of this document cannot be duplicated, copied, reprinted, transferred, distributed or loaned in whole or in part without the prior approval of Nintendo Co. Ltd.