

LocalFile provider

General-purpose file access

Version 1.1.1

User's guide

April 10, 2020

【 remarks 】

This manual has been translated using machine translation.

【 revision history 】

Version	Date	Content
1.0.0.0	2006-02-24	First edition
1.0.1.0	2008-02-06	Manual correction
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1.1.0	2020-01-30	Addition of GetFileList command of CaoController
1.1.1	2020-04-10	GetFileList bug fix

【 hardware 】

Model	Version	Notes

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1. Introduction

This document is an user's guide of the LocalFile provider that is the provider to access the file on a local machine.

It ..file actual with the CaoFile object of CAO.. corresponds to couple 1. As a result, it is mounted so that the CaoFile object may reproduce the tree structure of an actual file.

This book explains the function of this LocalFile provider and the mounting method.

2. Outline of provider

2.1. Outline

The LocalFile provider accesses the file on a local machine by using the interface of CAO.

Moreover, the error number is returned when the error of the system of Windows occurs and CAO API returns the value in which the mask is done by "0x8010000".

Example) Error of system of Windows: 2(0x0002) error of → CAO API: 0x80100002

Table1LocalFile provider

File name	CaoProvLocalFile.dll
ProgID	CaoProv.LocalFile
Registry registration	regsvr32 CaoProvLocalFile.dll
Blotting out of registry registration	regsvr32 /u CaoProvLocalFile.dll

2.2. Method property

2.2.1. CaoWorkspace::AddController method

The CaoController object is generated by this method. The controller name can use an arbitrary name. The argument specification of AddController is shown as follows.

```
AddController
(
"< controller name >"           // Virtual controller name
"CaoProv.LocalFile",           // Provider name. Fixation.
"< machine name >"             // (unused)
"< option >"                   // Optional character string
)
```

2.2.2. CaoController::AddFile method

The CaoFile object is made in this AddFile method. The file corresponding to the object is specified for an object name. The argument specification of AddFile is shown as follows.

```
AddFile
(
"< file name >"                // File name
"< option >"                   // Optional character string
)
```

The option uses the following character strings.

Table 2Optional character string of CaoController::AddFile

Option	Meaning
Path[=< path name >]	<p>Passing the directory with the file specified for a file name is described. (default: System drive)</p> <p>Please input it with the absolute path or UNC. The AddFile method fails in the relative path. At this time, the delimiter of passing can use both “¥” and “/”.</p>
@Create[=<0 - 2>]	<p>The file is made according to this optional value when there is no specified file.</p> <p>0:The file is not made. (default)</p> <p>1:The file is made.</p> <p>2:The directory is made.</p> <p>The specified file exists or the file name is disregarded and this option is disregarded as for drive Nipponia nippon.</p>
TextMode [=<TRUE/FALSE>]	<p>Whether the content of the specified file is acquired in the text form is specified.</p> <p>TRUE: Data is acquired in the text form.</p> <p>FALSE: Data is acquired in the binary form. (default)</p>

2.2.3. GaoController::Execute command

The command is executed.

Please refer to the following for details of the command that can be used.

Table3List of mounting command of GaoController::Execute method

Command	Parameter	Return value	Operation
GetFileList	<ul style="list-style-type: none"> •Passing •Filter •Mode <p>Please refer to chapter 2.2.3.1 for details.</p>	<ul style="list-style-type: none"> •File information list <p>Please refer to chapter 2.2.3.2 for details.</p>	<p>The list of the file directory in the specified passing is acquired.</p> <p>The maximum number of acquired lists becomes 10,000.</p> <p>If the result exceeds 10,000, E_CAOP_LISTLIMITOVER will occur.</p> <p>If the result is 0, VT_EMPTY is returned.</p> <p>It is possible to filter with a wild-card.</p> <p>Search results can only specify the following parameters</p> <ul style="list-style-type: none"> •File + directory •Only the file •Only the directory

2.2.3.1. The parameter is detailed of GetFileList.

VT_ARRAY | VT_VARIANT

Element	Item	Type	Indispensability	Explanation
The first element	Passing	VT_BSTR	-	Passing to be acquired is specified. Please refer to chapter 2.2.4 for details.
The second element	Filter	VT_BSTR	—	Filtering to be acquired is done. Wild-card <ul style="list-style-type: none"> • "*": Pattern that matches to arbitrary character string of 0 characters or more in length • "?": Pattern that matches to one arbitrary character <p>8.3 The alias of the form becomes the object of the check, too. It is assumed the one that "*" was specified when not specifying it.</p>
The third element	Mode	VT_I4	—	The retrieval object is specified. The following values can be specified. <ul style="list-style-type: none"> 0:File + directory (default) 1:Only the file 2:Only the directory <p>It is assumed the one that 0 was specified when not specifying it.</p>

2.2.3.2. The return value is detailed of GetFileList.

VT_ARRAY | List of VT_VARIANT ? file information

└─VT_ARRAY | VT_VARIANT ? file information ¹

| └─┬...

└─┬... It is a repetition for a few minutes of the file directory.

2.2.3.2.1. The file information is detailed.

Element	Item	Type	Explanation
The first element	File name	VT_BSTR	The name of the detected file (The extension is included) is acquired.
The second element	Complete passing	VT_BSTR	A complete passing the detected file is acquired.
The third element	Directory attribute	VT_BOOL	It is judged whether the found file is a directory. TRUE: Directory FALSE: File
The fourth element	Size	VT_UI8	The length of the detected file is acquired by each byte.
The fifth element	Date and time of creation	VT_DATE	Time when the file was made is acquired.
The sixth element	Updated day and hour	VT_DATE	Time when the file was changed at the end and preserved is acquired.
The seventh element	Access date	VT_DATE	Time when the file was accessed at the end is acquired.
The eighth element	Attribute only for reading	VT_BOOL	It judges it whether the detected file is only reading. Read. FALSE: It is not only for reading.
The ninth element	Hidden file attribute	VT_BOOL	It is judged whether it is non-display of the detected file. TRUE: Non-display FALSE: It is not non-display.

¹ The order in which this function returns the file names is dependent on the file system type. With the NTFS file system and CDFS file systems, the names are usually returned in alphabetical order. With FAT file systems, the names are usually returned in the order the files were written to the disk, which may or may not be in alphabetical order. However these behaviors are not guaranteed.

2.2.4. CaoFile::AddFile method

Create a file object. Only the file in the directory that corresponds to the CaoFile object that executes this method can be specified for a file name. Therefore, it is the above-mentioned. For this reason, the Path option which is the option of 2.2.2 above is ignored. This method fails in no correspondence of the executed CaoFile object to the directory.

2.2.5. CaoFile::Copy method

When this method is executed, it copies it onto the place where the file was specified. However, the method fails when the CaoFile object is a drive or a shared directory.

Table4Operation of Copy method at each correspondence file

Corresponding file	Operation of Copy method
File	It copies a file.
Directory	The directory and the file and the subdirectory in that are copied.
Drive and shared directory	The error is returned without copying it.

The argument specification of Copy is shown as follows.

```
Copy
(
  "< copy destination >" // At the destination of the copy of the file
  "< option >" // Optional character string
)
```

The option uses the following character strings.

Table5Optional character string of CaoFile::Copy

Option	Meaning
Overwrite[=<True/False>]	Superscription setting when there is file at copy destination. True :It overwrites. False :It doesn't overwrite. (default value)

The place copied by the specification method at the copy destination is as follows.

Table6 At the copy specification method at the copy destination of CaoFile::Copy destinations

Specification method at copy destination	Result	Example:Specification method	Copy result
Absolute path	It copies it onto the place specified at the copy destination.	/TestDir2/Test2.txt	C:¥TestDir2¥Test2.txt
Relative path	It copies it onto the place based on the directory in which the copy origin is filed.	./TestDir2/Test.txt	C:¥TestDir¥TestDir2¥Test.txt
Only the file name	It copies it onto the same directory as the copy origin.	Test2.txt	C:¥TestDir¥Test2.txt
It is a delimiter in the end of passing.	The file of the copy origin and the same name is copied onto the directory of the copy destination.	/TestDir2/	C:¥TestDir2¥Test.txt

- At this time, passing the copy origin .."C:¥TestDir¥Test.txt " .. is assumed.

Moreover, when the one of the following conditions is input at the copy destination, the error is returned.

- Nipponia nippon as which copy destination and copy origin are the same.
- When the copy destination is a subdirectory of the copy origin.

2.2.6. CaoFile::Delete method

The file that corresponds to the object is deleted. It is necessary to erase the object with the client when it is needless because the object is not deleted after it deletes a file.

2.2.7. CaoFile::Move method

The Move method executes the Copy method and then executes the Delete method. The argument specification of Move is shown below.

2.2.8. CaoFile::Execute method

The command is executed.

Please refer to the following for details of the command that can be used.

Table7List of mounting command of CaoFile::Execute method

Command	Parameter	Return value	Operation
Refresh	None	None	Information on the attribute of the file, the date and time of creation, the access date, and updated day and hour is updated.
Append	<DATA > = Additional character string	None	The specified character string is added.

2.2.9. CaoFile::get_FileNames property

The file name list that exists in the directory that corresponds to the CaoFile object is acquired. This property fails in the file of correspondence to the CaoFile object.

Table8Optional character string of CaoFile::get_FileName

Option	Meaning
Filter character string of =< Filter >	Setting of filter of acquisition list. (default: "*. *")

2.2.10. CaoFile::GetAttribute property

The attribute value of the file that corresponds to the object is acquired. The attribute that can be acquired and the value are as follows. The total of the value is taken at the file with two or more attributes.

Table9Attribute that can be acquired with GetAttribute and the value

Attribute name	Value
Reading exclusive use	0x001
Hidden file	0x002
System file	0x004
Directory	0x010
Archive	0x020
Normality	0x080
Temporary file	0x100
Data compressed file	0x800

2.2.11. GaoFile::get_Value property

The content of the file that corresponds to the object is acquired. It fails in the directory.

The data form when acquiring it is decided ..optional TextMode of AddFile it... Details are as follows.

Table10TextMode option and form of acquisition data

Value of optional TextMode	Acquisition form
TRUE	Text form (VT_BSTR) When the NULL character is included in data, data immediately before that is acquired.
FALSE	Binary form (VT_UI1 VT_ARRAY)

2.2.12. GaoFile::put_Value property

The content of the file that corresponds to the object is set. Even if data is sent to the provider by either the character string or the binary array, the client can be set. It fails in the directory.

2.3. Variable list

2.3.1. Controller class

Table2-11 Controller class system variable list

Variable identifier	Data type	Explanation	Attribute	
			get	put
@Version	VT_BSTR	Version information	-	-

2.4. Error code

In the LocalFile provider, the following and peculiar the error code is defined. About the ORiN2 commonness error, Please refer to the chapter of the error code of "ORiN2SDK user's guide".

Table2-12 Original error code list

Error name	Error number	Explanation
E_CAOP_FILENOTFOUND	0x80100800	The file is not found.
E_CAOP_LISTLIMITOVER	0x80100801	The limitation of the list was exceeded.

3. Sample program

The file is made as follows, the content is acquired, and the set sample is shown.

File passing : "C:¥Sample.txt"

List 3-1**Sample.frm**

```
Private eng As CaoEngine
Private ctrl As CaoController
Private file As CaoFile

Private Sub Form_Load()
    Dim ws As CaoWorkspace

    Set eng = New CaoEngine
    Set ws = eng.Workspaces(0)

    ' start of local file provider
    Set ctrl = ws.AddController("sample", "CaoProv.LocalFile")
    Acquisition/... making of file
    Set file = ctrl.AddFile("Sample.txt", "Path=C:¥, @Create=1, TextMode=True")

End Sub

' setting of content of file
Private Sub Command1_Click()
    file = Text1.Text
End Sub

' acquisition of content of file
Private Sub Command2_Click()
    Text2.Text = file
End Sub
```