# Open Object Rexx

## RxFtp Class Library Reference

**Version 3.1.1 Revision 4 Edition**
**November 7 2006**


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**Open Object Rexx: RxFtp Class Library Reference**

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Published November 7 2006


Thanks to Julian Choy for the ooRexx logo design.

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# About This Book

This book describes the Open Object Rexx RxFtp Class Library and its methods.

This book is intended for people who plan to develop applications using Rexx and FTP. Its users range from the novice, who might have experience in some programming language but no Rexx or FTP experience, to the experienced application developer, who might have had some experience with Object Rexx and FTP.

This book is a reference rather than a tutorial. It assumes you are already familiar with object-oriented programming concepts.

Descriptions include the use and syntax of the language and explain how the language processor "interprets" the language as a program is running.

## 1. Related Information

See also: *Open Object Rexx: Reference*

## 2. How to Read the Syntax Diagrams

Throughout this book, syntax is described using the structure defined below.

- Read the syntax diagrams from left to right, from top to bottom, following the path of the line.

  The >>--- symbol indicates the beginning of a statement.

  The ---> symbol indicates that the statement syntax is continued on the next line.

  The >--- symbol indicates that a statement is continued from the previous line.

  The --->< symbol indicates the end of a statement.

  Diagrams of syntactical units other than complete statements start with the >--- symbol and end with the ---> symbol.

- Required items appear on the horizontal line (the main path).

```
>>-STATEMENT--required_item-------------------------------------><
```

- Optional items appear below the main path.

```
>>-STATEMENT--+---------------+--------------------------------><
              +-optional_item-+
```

- If you can choose from two or more items, they appear vertically, in a stack. If you must choose one of the items, one item of the stack appears on the main path.

```
>>-STATEMENT--+-required_choice1-+----------------------------><
              +-required_choice2-+
```

- If choosing one of the items is optional, the entire stack appears below the main path.

```
>>-STATEMENT--+------------------+-----------------------------><
              +-optional_choice1-+
              +-optional_choice2-+
```

- If one of the items is the default, it appears above the main path and the remaining choices are shown below.

```
              +-default_choice--+
>>-STATEMENT--+-----------------+-----------------------------><
              +-optional_choice-+
              +-optional_choice-+
```

- An arrow returning to the left above the main line indicates an item that can be repeated.

```
              +-----------------+
              V                 |
>>-STATEMENT----repeatable_item-+-----------------------------><
```

  A repeat arrow above a stack indicates that you can repeat the items in the stack.

- A set of vertical bars around an item indicates that the item is a fragment, a part of the syntax diagram that appears in greater detail below the main diagram.

```
>>-STATEMENT--| fragment |-------------------------------------><
```

  *fragment:*

```
|--expansion_provides_greater_detail---------------------------|
```

- Keywords appear in uppercase (for example, `PARM1`). They must be spelled exactly as shown but you can type them in upper, lower, or mixed case. Variables appear in all lowercase letters (for example, `parmx`). They represent user-supplied names or values.
- If punctuation marks, parentheses, arithmetic operators, or such symbols are shown, you must enter them as part of the syntax.

The following example shows how the syntax is described:

```
        +-,------+
        V        |
>>-MAX(----number-+--)-----------------------------------------><
```

# 3. A Note About Program Examples in this Document

The program examples in this document are rendered in a mono-spaced font that is not completely compatible for cut-and-paste functionality. Pasteing text into an editor could result in some characters

outside of the standard ASCII character set. Specifically, single-qoute and double-quote characters are sometimes converted incorrectly when pasted into an editor.

# 4. Getting Help

The Open Object Rexx Project has a number of methods to obtain help for ooRexx. These methods, in no particular order of preference, are listed below.

## 4.1. The Rexx Language Association Mailing List

The *Rexx Language Association* (http:www.rexxla.org/) maintains a mailing list for its members. This mailing list is only available to RexxLA members thus you will need to join RexxLA in order to get on the list. The dues for RexxLA membership are small and are charged on a yearly basis. For details on joining RexxLA please refer to the *RexxLA Home Page* (http://rexxla.org/) or the *RexxLA Membership Application* (http://rexxla.org/About_RexxLA/member.html) page.

## 4.2. The Open Object Rexx SourceForge Site

The Open Object Rexx Project (http://www.oorexx.org/) utilizes *SourceForge* (http://sourceforge.net/) to house the *ooRexx Project* (http://sourceforge.net/projects/oorexx) source repositories, mailing lists and other project features. Here is a list of some of the most useful facilities.

The ooRexx Forums

> The ooRexx project maintains a set of forums that anyone my contribute to or monitor. They are located on the *ooRexx Forums* (http://sourceforge.net/forum/?group_id=119701) page. There are currently three forums available: Help, Developers and Open Discussion. In addition, you can monitor the forums via email.

The Developer Mailing List

> You can subscribe to the oorexx-devel mailing list at *ooRexx Mailing List Subscriptions* (http://sourceforge.net/mail/?group_id=119701) page. This list is for discussing ooRexx project development activities. It also supports a historical archive of past messages.

The Users Mailing List

> You can subscribe to the oorexx-users mailing list at *ooRexx Mailing List Subscriptions* (http://sourceforge.net/mail/?group_id=119701) page. This list is for discussing using ooRexx. It also supports a historical archive of past messages.

The Announcements Mailing List

> You can subscribe to the oorexx-announce mailing list at *ooRexx Mailing List Subscriptions* (http://sourceforge.net/mail/?group_id=119701) page. This list is only used to announce significant ooRexx project events.

The Bug Mailing List

You can subscribe to the oorexx-bugs mailing list at *ooRexx Mailing List Subscriptions* (http://sourceforge.net/mail/?group_id=119701) page. This list is only used for monitoring changes to the ooRexx bug tracking system.

Support Requests

You can create a support request at *ooRexx Support Request* (http://sourceforge.net/tracker/?group_id=119701&atid=684731) page. Please be sure to log in to Sourceforge before creating the request so that it will record your e-mail address. This will allow SourceForge (and the ooRexx developers) a way to contact you when updates are made to your request. Otherwise you will need to manually check back on this page to track any updates to the request.

Also, please try to provide as much information in the support request as possible so that the developers can determine the problem as quickly as possible.

Bug Reports

You can create a bug report at *ooRexx Bug Report* (http://sourceforge.net/tracker/?group_id=119701&atid=684730) page. Please be sure to log in to Sourceforge before creating the report so that it will record your e-mail address. This will allow SourceForge (and the ooRexx developers) a way to contact you when updates are made to your report. Otherwise you will need to manually check back on this page to track any updates to the report.

Also, please try to provide as much information in the bug report as possible so that the developers can determine the problem as quickly as possible.

Patch Reports

If you create an enhancement patch for ooRexx please post the pach using the *ooRexx Patch Report* (http://sourceforge.net/tracker/?group_id=119701&atid=684732) page. Please be sure to log in to Sourceforge before creating the report so that it will record your e-mail address. This will allow SourceForge (and the ooRexx developers) a way to contact you when updates are made to your report. Otherwise you will need to manually check back on this page to track any updates to the report.

Also, please try to provide as much information in the patch report as possible so that the developers can evaluate the enhancement as quickly as possible.

Please do not post bug patches here, instead you should open a bug report and attach the patch to it.

## 4.3. comp.lang.rexx Newsgroup

The comp.lang.rexx (news:comp.lang.rexx) newsgroup is a good place to obtain help from many individuals within the Rexx community. You can obtain help on Open Object Rexx or on any number of

other Rexx interpreters and tools.

# Chapter 1. What is RxFtp?

RxFtp is an Object Rexx Class library providing access to the TCP/IP FTP interface based on RFC 959.

It is assumed that you are familiar with the basic FTP functionality and can reference those specific to the system. For more information, refer to the book *Internetworking with TCP/IP, Volume I: Principles, Protocols and Architecture* by Douglas Comer (Prentice Hall PTR).

The RxFtp package requires the RxSock external function package supplied with Open Object Rexx.

# Chapter 2. Installation

The RxFtp package is contained in the file *rxftp.cls*. This file must be placed in a directory listed in your PATH. To get access to the class and methods in the RxFtp package you must include a ::REQUIRES directive in any Object Rexx script that uses the class:

```
      .
      .
      .
::requires "rxftp.cls"
```

You instantiate an instance of the class using the normal Object Rexx conventions.

```
myftpobj = .rxftp~new
```

Each instance of the class completely encapsulates a connection to an FTP server. This means that you can instaniate multiples instance of the class and have multiple open connections to FTP servers simultaneously.

## 2.1. Notes on Using RxFtp

1. The FtpProxy method does not exist in the RxFtp class.
2. Firewalls can prevent many of the RxFtp methods from working properly. Active and passive mode transfers can both be restricted by the use of firewalls. This especially applies to active mode transfers when the client is running a firewall locally (like WindowsXP SP2 or any modern Linux distribution).
3. Each instance of the RxFtp class you instaniate has its own connection to an FTP server. Thus you can instaniate multiple instance of this class and connect to multiple FTP servers simultaneously. Also, each instance can be reused - the FtpLogoff method reinitializes the instance and a following FtpSetUser method can establish a new connection to an FTP server.

# Chapter 3. RxFtp Method Reference

The following sections describe how the individual methods available in RxFtp are invoked from the Rexx programming environment:

# 3.1. FtpAppend

The FtpAppend method appends a file to another file on the FTP server. If the target file on the server soes not exist it is created.

**Syntax:**

```
>>--myftpobj~FtpAppend(--localfilename, remotefilename--+----------+--)--><
                                                       +--, mode--+
```

**Arguments:**

localfilename

The filename and optional path where the source file is stored.

remotefilename

The filename and optional path of the target file for the append operation on the FTP server. If the path is not given the current directory on the ftp server will be used. If the file does not exist it will be created.

mode

The file transfer mode, either 'ASCII' or 'BINARY'. If the argument is not given the the current mode will be used.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.2. FtpChDir

The FtpChDir method changes the current directory on the FTP server. If this command fails the directory on the server remains unchanged.

**Syntax:**

```
>>-- myftpobj~FtpChDir(newdir)-----------------------------------------><
```

**Arguments:**

newdir

The directory name and optional path to the directory to be made the current directory.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.3. FtpDelete

The FtpDelete method deletes the specified file on the FTP server.

**Syntax:**

```
>>--myftpobj~FtpDelete(filename)-----------------------------------------><
```

**Arguments:**

filename

The filename and optional path to the file to be deleted. If the path is not given the file will be deleted from the current directory on the ftp server.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.4. FtpDir

The FtpDir method returns a listing (in long format) of a directory on the server. The directory listing is placed in the attribute *Response* as an Object Rexx array of lines. The array will be empty if this method encounters an error.

The format of the returned directory listing depends on the operating system running on the FTP server machine.

**Syntax:**

```
>>-- myftpobj~FtpDir(--+-----------+--)---------------------------------><
                       +--pattern--+
```

**Arguments:**

pattern

The filename pattern to use to filter the directory listing. You can use the standard '*' and '?' wildcard characters in the pattern. This argument is optional. If this argument is not specified the default pattern './*' will be used.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.5. FtpGet

The FtpGet method gets a single file from the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpGet(localfilename, remotefilename--+----------+--)------><
                                                   +--, mode--+
```

**Arguments:**

localfilename

The filename and optional path where the retrieved file will be stored. If the path is not given the file will be placed in the user's current directory.

remotefilename

The filename and optional path to the file to be retrieved. If the path is not given the file will be retrieved from the current directory on the ftp server.

mode

The file transfer mode, either 'ASCII' or 'BINARY'. If the argument is not given the the current mode will be used.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

## 3.6. FtpGetMode

The FtpSetType method returns the file transfer mode on the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpGetMode()-----------------------------------------------><
```

**Arguments:**

None.

**Return Values:**

Returns one of the following strings.

'ACTIVE'

The current transfer mode is active.

'PASSIVE'

The current transfer mode is passive.

## 3.7. FtpGetType

The FtpSetType method returns the file transfer type on the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpGetType()----------------------------------------------><
```

**Arguments:**

None.

**Return Values:**

Returns one of the following strings.

'ASCII'

The current type is ASCII.

'BINARY'

The current type is binary.

## 3.8. FtpLogoff

The FtpLogoff method logs off the FTP server and closes the connection. It also reinitializes the instance of the class so it can be used again.

**Syntax:**

```
>>-- myftpobj~FtpLogoff()-------------------------------------------------><
```

**Arguments:**

None.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.9. FtpLs

The FtpLs method returns a listing (in short format) of a directory on the server. The directory listing is placed in the attribute *Response* as an Object Rexx array of lines. The array will be empty if this method encounters an error.

Each member of the array containing the directory listing usually only contains the name of a file in the specified directory. But the format may be different in some cases.

**Syntax:**

```
>>-- myftpobj~FtpLs(--+-----------+--)-----------------------------------><
                     +--pattern--+
```

**Arguments:**

pattern

The filename pattern to use to filter the directory listing. You can use the standard '*' and '?' wildcard characters in the pattern. This argument is optional. If this argument is not specified the default pattern './*' will be used.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.10. FtpMkDir

The FtpMkDir method creates a new subdirectory on the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpMkDir(newdir)-----------------------------------------><
```

**Arguments:**

newdir

The name and optional path to the new directory.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.11. FtpPut

The FtpPut method sends a single file to the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpPut(localfilename, remotefilename--+----------+--)------><
                                                   +--, mode--+
```

**Arguments:**

localfilename

The filename and optional path where the source file is stored.

remotefilename

The filename and optional path used to store the file on the FTP server. If the path is not given the file will be stored in the current directory on the ftp server.

mode

The file transfer mode, either 'ASCII' or 'BINARY'. If the argument is not given the the current mode will be used.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.12. FtpPutUnique

The FtpPut method sends a single file to the FTP server. If the file exists on the server it is not replaced and a new name is assigned to the file sent from the client.

**Syntax:**

```
>>-- myftpobj~FtpPutUnique(localfilename, remotefilename--+----------+--)--><
                                                         +--, mode--+
```

**Arguments:**

localfilename

The filename and optional path where the source file is stored.

remotefilename

The filename and optional path used to store the file on the FTP server. If the filename exists then a new filename is used. If the path is not given the file will be stored in the current directory on the ftp server.

mode

The file transfer mode, either 'ASCII' or 'BINARY'. If the argument is not given the the current mode will be used.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.13. FtpPwd

The FtpPwd method returns the current directory name and path on the FTP server. The information is placed in the attribute Response as an Object Rexx array of lines. However, this method always returns a single line to the array if it succeeds. The array will be empty if this method encounters an error.

**Syntax:**

```
>>-- myftpobj~FtpPwd()-------------------------------------------------><
```

**Arguments:**

None.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.14. FtpQuote

The FtpQuote method sends a command to the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpQuote(cmd)-----------------------------------------------><
```

**Arguments:**

cmd

The command to be executed on the server.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.15. FtpRename

The FtpRename method renames an existing file on the FTP server. On Unix FTP server this command can also move a file from one subdirectory to another with either a new or its old name.

**Syntax:**

```
>>-- myftpobj~FtpRename(oldfile, newfile)-------------------------------><
```

**Arguments:**

oldfile

The name and optional path of the file to be renamed.

newfile

The new name and optional path of the file.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.16. FtpRmDir

The FtpRmDir method removes a subdirectory on the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpRmDir(newdir)-------------------------------------------><
```

**Arguments:**

newdir

The name and optional path to the directory to be removed.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.17. FtpSetMode

The FtpSetMode method changes the passive/active mode used for file tranfers to/from the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpSetMode(--+--"PASSIVE"--+--)---------------------------><
                          +--"ACTIVE"---+
```

**Arguments:**

'PASSIVE'

Sets passive mode for file transfers. Only the first letter of the argument is significant and it is not case-sensitive.

'ACTIVE'

Sets active mode for file transfers. Only the first letter of the argument is significant and it is not case-sensitive.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

If an error is returned the mode remains unchanged.

# 3.18. FtpSetType

The FtpSetType method changes the file transfer type on the FTP server.

**Syntax:**

```
>>-- myftpobj~FtpSetType(--+--"ASCII"---+--)----------------------------><
                           +--"BINARY"--+
```

**Arguments:**

'ASCII'

Changes the file transfer type on the FTP server to ASCII. Only the first letter of the argument is significant and it is not case-sensitive.

'BINARY'

Changes the file transfer mode on the FTP server to binary. Only the first letter of the argument is significant and it is not case-sensitive.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

If an error is returned the type remains unchanged.

# 3.19. FtpSetUser

The FtpSetUser method creates a session with an FTP server and logs the user on.

**Syntax:**

```
>>-- myftpobj~FtpSetUser(host, user--+-------------------------+--)------><
                                     +--, password--+----------+
                                                    +--, acct--+
```

**Arguments:**

host

The host name or TCP/IP address of the FTP server.

user

The user name for the server.

password

(optional) The user password.

acct

(optional) The accounting information for the user.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

Yhe internal FTP command or the arguments to the method are in error.

FTPHOST

Unknown *host* name or server not responding.

FTPSOCKET

RxSock function error.

FTPCONNECT

Server not responding or not available.

FTPLOGIN

*user*, *password* or *acct* information is invalid.

# 3.20. FtpSite

The FtpSite method sends a Site command to the FTP server.

**Syntax:**

```
>>--myftpobj~FtpSite(cmd)-------------------------------------------------><
```

**Arguments:**

cmd

The Site command to be executed on the server.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

## 3.21. FtpSys

The FtpSys method returns the operating system description information from FTP server. The information is placed in the attribute Response as an Object Rexx array of lines. However, this method always returns a single line to the array if it succeeds. The array will be empty if this method encounters an error.

**Syntax:**

```
>>-- myftpobj~FtpSys()-------------------------------------------------><
```

**Arguments:**

None.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

## 3.22. FtpTrace

The FtpTrace method starts the tracing of FTP commands. The initial state is off. If tracing is on the the FTP commands sent to the server and their responses will be displayed.

**Syntax:**

```
>>-- myftpobj~FtpTrace()-----------------------------------------------><
```

**Arguments:**

None.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.23. FtpTraceLog

The FtpTraceLog method causes all FTP commands and responses in the current trace buffer to be written to a log file.

**Syntax:**

```
>>--myftpobj~FtpTraceLog(filename--+---------------+--)------------------><
                                  +--, "REPLACE"--+
```

**Arguments:**

filename

The filename and optional path to the log file.

'REPLACE'

If this argument is given then if the log file exists it will be replaced. The default is to append the trace output to the log file. Only the first letter of the argument is significant.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.24. FtpTraceLogoff

The FtpTraceLogoff method stops the tracing of FTP commands.

**Syntax:**

```
>>-- myftpobj~FtpTraceLogoff()-----------------------------------------><
```

**Arguments:**

None.

**Return Values:**

A value of 0 indicates successful execution of the method. The value -1 indicates an error. You can get the specific error code by inspection of the method FtpErrno. Possible values:

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

# 3.25. FtpVersion

The FtpVersion method returns the version number of the RxFtp class in the form of *x.x.x*.

**Syntax:**

```
>>--myftpobj~FtpVersion()-----------------------------------------------><
```

**Arguments:**

None.

# Chapter 4. RxFtp Additional Method Attributes

The following sections describe the additional method attributes available in the RxFtp class.

- CmdResponse
- CR_Remove
- Debug
- FtpErrno
- Response

## 4.1. CmdResponse

The CmdResponse method attribute is an Object Rexx array which contains the commands sent to the FTP server and the responses recieved from the server. Items are continually added to this array for each method invoked during the session with the server.

This array is a complete record of the command/response activity between the client and the server.

**Example:**

The following will display the CmdResponse array.

```
do i = 1 to myftpobj~cmdresponse~items
   say myftpobj~cmdresponse[i]
end
```

## 4.2. CR_Remove

The CR_Remove method attribute is always in one of two states. If it is set to .true then carriage return characters ('0D'x) are removed from ASCII downloads when the class is running on a Unix platform. If it is set to .false then CR bytes are retained in the locally stored file.

This attribute is ignored for non-Unix machines.

The default value is .true.

**Example:**

The following will disable the removal of CR bytes.

```
myftpobj~cr_remove = .false
```

## 4.3. Debug

The Debug method attribute is always in one of two states. If it is set to .true then debug messages will be sent to STDOUT. If it is set to .false then all debugging messages will be suppressed.

The default value is .false.

**Example:**

The following will enable the debugging messages.

```
myftpobj~debug = .true
```

## 4.4. FtpErrno

The FtpErrno method attribute contains extended information when a method return an error. It is a simple string value or a zero-length string when the method is successful.

These are the possible values for FtpErrno.

FTPCOMMAND

The internal FTP command or the arguments to the method are in error.

FTPHOST

Unknown *host* name or server not responding.

FTPSOCKET

RxSock function error.

FTPCONNECT

Server not responding or not available.

FTPLOGIN

Invalid login information was supplied.

**Example:**

The following will display the FtpErrno.

```
if myftpobj~ftperrno <> "" then say myftpobj~errno
```

## 4.5. Response

The Response method attribute is always in one of two states. If it is set to .nil then the command did not generate a response. In all other cases the Response is an Object Rexx array object with each array entry containing a single line of the response.

A typical value for Response would be the lines from the server directory listing in response to invoking the FtpDir method.

**Example:**

The following will display the Response array.

```
if myftpobj~response <> .nil then do i = 1 to myftpobj~response~items
   say myftpobj~response[i]
   end
```

# Appendix A. Sample RxFtp Program

The following is a sample program using REXX FTP Class Library methods.

```
/*============================================================*/
/* Basic RxFTP sample to send a file with cmd/reply logging     */
/*============================================================*/
/* Define the variables for: */
server = "127.0.0.1" /* IP address or server name */
userid = "remote_user_ID"
passwd = "password_of_remote_user"
trclog = "logfile.txt" /* Trace log file name */
retc = 0 /* Set return code to 0 */

myftp = .rxftp~new()

/* Start tracing FTP commands and logging of replies */
retc = myftp~FtpTrace()
retc = myftp~FtpTraceLog( trclog, "1")
If retc = 0 then Say " Replies will be written to log file: "trclog"."
Else Say " No writing to log file: "trclog" possible."

/* Define remote host and user to be used during the session */
retc = myftp~FtpSetUser(server, userid, passwd)
If retc = 0 then Say " Connection established."
Else Call Terminate " *** Connection failed."

/* Transfer an ASCII file to the remote ftp server */
retc = myftp~FtpPut("sample.rex", "sample.put", "ASCII")
If retc = 0 then Call Terminate " File has been sent. "
Else Call Terminate " *** File has NOT been sent."

/* Terminate the file transfer */
Terminate:
Parse Arg Message
Say Message

retc = myftp~FtpLogoff()

retc = myftp~FtpTraceLogoff()
retc = myftp~FtpTrace()

exit retc

::requires "rxftp.cls"
```

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