

LPR ActiveX Control

**LPR
ActiveX Control
for Microsoft® Windows™**

Version 5.2

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Last updated June 5th, 2003

Published in the United States of America

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1 Overview

1.1 Introduction

The Distinct LPR ActiveX control provides an application with a way to programmatically communicate with a LPD server, as specified in RFC1179. This ActiveX can be used to send print jobs to the printer daemon and retrieve queuing information about the jobs in the queue. It also allows an application to delete a print jobs in a printer queue, and query if a printer is available and ready to accept a print job.

1.2 Usage

See the section entitled "Using Distinct ActiveX controls in various environments" on how to add the control to your project.

To determine if a printer is available the ValidatePrinter method can be called. If this method is successful the printer is available and ready to accept print jobs.

To send a file to the print server call the Print method. If you want to send the data from a buffer rather than directly from a file the PrintData method can be used in conjunction with the Print method. When sending a print job the OnStatus event will be fired to notify the user how many bytes of data have been transferred. The application can use this information to increment a status bar.

The print job can be aborted during transfer by calling the Abort method. The Abort method can be called in the OnStatus event or between calls to PrintData when printing using buffers.

The queue information for a print server can be retrieved using the Queue and QueueData methods. These methods must be used together in order to get the parsed queue information. The Queue method retrieves the queue information from the print server and the QueueData method is used to parse the information. To parse the information the application must set the parsing string to match the format of the information delivered by the server. See the ParseString property for more information. Each time the QueueData method is called the information for one item in the queue is parsed. The queue process can be aborted by calling the Abort method.

A print job can be deleted from the print server queue by calling the Delete method.

The Distinct LPR ActiveX control supports the apartment threading model.

1.3 LPR Property Summary

Class

The class name to appear on the banner page for a print job

ControlString

A custom string that the user can define and send with the control file when printing.

Filename

The name of the file for the print job in the queue.

FileType

Specifies the format type of the file to be printed.

Indent

Specifies the indent of the text from the left side of the page.

JobHeader

Specifies whether or not to print a header page at the start of the print job.

JobNo

The job number of the job in the queue, as set by the LPD server.

ParseString

The string used to parse the queue information.

Position

The position of the job in the print queue.

PortNumber

The port number the LPD server is listening on.

Protocol

Specifies the protocol to use.

QueueBuffer

The unparsed information on a queue item as retrieved from the LPD server.

Reply

The servers reply to the delete command.

Size

The size of the job in the print queue.

Time

The time the job arrived in the print queue.

Timeout

Specifies the length of time in seconds that the LPR ActiveX will wait for a reply from the LPD before timing out.

User

The machine that sent the print job.

Width

Specifies the number of characters to print in a line.

XString

User specified field in retrieved queue information

YNumber

User specified numeric field in retrieved queue information

1.4 LPR Event Summary

OnStatus

Delivers the number of bytes transferred when sending a job to the printer.

1.5 LPR Method Summary

Abort

Abort the current action and reset ActiveX.

Delete

Delete a print job.

Print

Send a print job to the LPD server

PrintData

Send a print job to the LPD server by buffer

PrintDataEx

Send a print job to the print server by buffer. To be used in C# applications instead of PrintData.

Queue

Retrieve queue information from the LPD server.

QueueData

Parse the retrieved queue information.

ValidatePrinter

Validate that a printer is available and ready to accept print jobs.

1.6 D_LPR.TXT

```
'LPR ActiveX Control Sample program
'(C) Copyright 1998-2003 by Distinct Corporation
' All rights reserved

'flags
Global Const LPR_SUCCESS = 0
'LPR ActiveX Control
'(C) Copyright 1998-2003 by Distinct Corporation
' All rights reserved

' successful completion
Global Const LPR_SUCCESS = 0

' queue results
Global Const LPR_QUEUE_DATA = 50
Global Const LPR_QUEUE_DONE = 51
Global Const LPR_QUEUE_NO_DATA = 51

'protocol
Global Const LPR_PROTOCOL = 1

' error codes
Global Const LPR_FILE_ERROR = 1
Global Const LPR_HOST_ERROR = 2
Global Const LPR_WINSOCK_ERROR = 3
Global Const LPR_BUFFER_ERROR = 4
Global Const LPR_TYPE_ERROR = 5
Global Const LPR_SOCKET_ERROR = 6
Global Const LPR_CONNECT_ERROR = 7
Global Const LPR_PRINTER_ERROR = 8
Global Const LPR_CONTROL_ERROR = 9
Global Const LPR_DATA_ERROR = 10
Global Const LPR_DELETE_ERROR = 11
Global Const LPR_QUEUE_ERROR = 12
Global Const LPR_AUTH_ERROR = 13
Global Const LPR_SYSTEM_ERROR = 14
Global Const LPR_SPOOL_ERROR = 15
Global Const LPR_INIT_ERROR = 16
Global Const LPR_BAD_PATH_ERROR = 17
Global Const LPR_NO_TITLE_ERROR = 18
Global Const LPR_IN_ACTION_ERROR = 19
Global Const LPR_NO_MEMORY_ERROR = 20
Global Const LPR_QUEUE_NOT_CALLED_ERROR = 21
Global Const LPR_PRINT_NOT_CALLED_ERROR = 22
Global Const LPR_ABORTED = 23
Global Const LPR_NO_ACTION_ERROR = 24
Global Const LPR_TIMEOUT_ERROR = 25
Global Const LPR_PARSE_ERROR = 26
```


2 Properties

2.1 Class

Summary

The class to appear on the banner page for a print job

Description

This property is used to specify the class to appear on the banner page when printing. This property is only used when a banner page is specified by setting the JobHeader property to True. The class is conventionally used to display the host from which the printing job originated. This property is optional and if it is not set then the name of the host on which the file is printed will be used on the banner page.

If used, this property should be set before calling the Print method to send a job to the LPD server. There is no default value for this property.

Example

```
Sub DoPrint()  
    LPR.JobName = "PrintJob0012"  
    LPR.Class = "AugBatch102"  
    LPR.JobHeader = True  
    LPR.PortNumber = 515  
    If not LPR.Print("\\myLpd\myprinter", "d:\rt12.txt", 10024, "Report12") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.2 ControlString

Summary

User defined control string to be sent to print server.

Description

This property allows the application to add a custom setting in the control file for a print job. The control file is sent to the print server before the actual data to be printed is sent. This control file specifies printing instructions to the print server. This property should only be used by advanced users to take advantage of any extensions to RFC1179 that their print server may have.

This property should only be used for printing options that are not supported by this ActiveX control, otherwise the properties supplied for these settings should be used. This line is appended as is to the control file and the application is responsible for the format and validity of this string.

It is the responsibility of the application to give a valid and correctly formatted control string, otherwise this may result an error on the print server. The RFC1179 states that the it must be a string of ASCII ending in an ASCII new line character.

If used, this property should be set before calling the Print method to send a print job. There is no default value for this property.

Example

```
Sub DoPrint()  
    ' send custom control file option that the printserver is known to support  
    LPR.ControlString = "Mtest@distinct.com" + char(13) + char (10)  
    If not LPR.Print("\\myLpd\myprinter", "d:\rt12.txt", 10024, "Report12") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.3 Filename

Summary

The name of the file for the print job in the queue.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "F" this property will contain the file name of the print job.

The file name may be different to the name of the file you sent to the print server with the Print method depending on the print server.

There is no default value for this property. This property is only used to deliver queue information and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = "%U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
    Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If(Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
```

```
MsgBox "Queue parsing failed", 64, "LPR"  
End If
```

2.4 FileType

Summary

Specifies the format type of the file to be printed.

Description

This property is used to inform the print server of how the file is formatted. Usually this will be either 'f', an ASCII file that the printer should format, or 'o', a formatted file.

For example, if you use Microsoft Word and print a document to a file you will get a .prn file. This file can then be sent to the print server with the FileType set to "o" as it is already formatted for printing.

There is a limit on what the print server can format for you. For example you can not send a .doc file with the FileType set to "f" and expect the printer to format it. This limitation will depend on the print server.

File format types include:

FileType	Description
f	To be formatted. The file will be printed as a plain text file, page breaks will be provided as necessary. (All ASCII control characters except HT, CR, FF, LF and BS will be discarded). The page width and indent can be set through the Width and Indent properties.
o	The file will be treated as standard postscript input.
p	Print with 'pr' format. The file will be printed with a heading, page numbers and pagination. The heading includes date, time and title. The page width can be set through the Width property.
g	Plot file. The file is treated as output from the Berkeley Unix plot library.
l	Print leaving in all control characters. The page width can be set through the Width property.
r	Interprets Fortran carriage control. First column of each line, 1, 0, +, - and as carriage controls.
v	Print a Sun raster format file.
t	Prints the data file as Graphic systems C/A/T phototypesetter input. Standard output of Unix troff command.
n	Ditroff.
d	DVI file (TeX output).
c	CIF (CalTech Intermediate Form) graphics language file.

Note: Not all print servers support the printing of all these file types. Also your print server may support more types than shown above. This property can be set to any single character, the ActiveX will not restrict the value. It is the applications responsibility to provide a valid file format type that is appropriate for the file and supported by the print server.

It is the responsibility of the application to set the appropriate values for the Width, Indent and JobHeader depending on the FileType.

Example

```
Sub DoPrint()  
    LPR.FileType = "o"  
    If not LPR.Print("\\myLpd\myprinter", "d:\rt12.prn", 10024, "Report12") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.5 Indent

Summary

Specifies the indent of the text from the left side of the page in number of characters.

Description

This property specifies the indent of the text from the left side of the page in number of characters. This is usually only used by the print server to provide basic formatting when printing a plain text file (I.e. When a file has been sent to the printer using the Print method, and the FileType property has been set to "f").

If this property is set to a positive integer this value will be sent to the print server. It is the responsibility of the application to provide a valid value for this property. How the print server interprets this value will depend on the print server.

This property has the default value of -1, which means no indent formatting information will be sent to the print server. If used, this property should be set before calling the Print method.

Example

```
Sub DoPrint()  
    LPR.FileType = "f"  
    LPR.Width = 100  
    LPR.Indent = 10  
    If not LPR.Print("\\myLpd\myprinter", "d:\plain.txt", 1024, "PlainText") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.6 JobHeader

Summary

Specifies whether or not to print a job header page.

Description

This property is a boolean value that specifies whether or not to print a header (or banner page) for the print job. The banner page is printed at the start of the print job and contains information about the print job. This information usually includes the class name, user name, job name and job title. See the Class and JobName properties for information on how to set these values. The job title is set from thhe Title parameter in the Print method. The user name is the machine the print job was sent from.

The filename, time, date and printer also usually appear on the banner page.

This property is False by default and if used should it be set before calling the Print method.

Example

```
Sub DoPrint()  
    LPR.FileType = "f"  
    LPR.JobName = "Print job 10"  
    LPR.Class = "Bob's Print Job"  
    LPR.JobHeader = True  
    If not LPR.Print("\\myLpd\myprinter", "d:\plain.txt", 1024, "PlainText") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.7 JobNo

Summary

The job number of the job in the queue, as set by the LPD server.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "J", this property will contain the job number assigned by the print server.

The job number is not necessarily related to the number of jobs the application has sent. The job number increases with each job sent. The job number is determined by the print server. The JobNo value can be used to specify a job when deleting a print job from the print server with the Delete method.

There is no default value for this property. This property is only used to deliver queue information, and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue, QueueData and Delete methods.

Example

```
' set parsing string for the print server
LPR.ParseString = "%U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
    Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & " Filename: " &
LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & " Filename: " &
LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
```

```
    Else
      'Display buffer or disregard as unwanted extra info
    End If
Else
  MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.8 JobName

Summary

The job name to appear on the banner page when printing

Description

This property is used to specify the job name to appear on the banner page when printing. This property is only used when a banner page is specified by setting the JobHeader property to True. This property is optional.

If used, this property should be set before calling the Print method to send a job to the print server. There is no default value for this property.

Example

```
Sub DoPrint()  
    LPR.FileType = "f"  
    LPR.JobName = "PrintJob0012"  
    LPR.Class = "AugBatch102"  
    LPR.JobHeader = True  
    LPR.PortNumber = 515  
    If not LPR.Print("\\myLpd\myprinter", "d:\testfile.txt", 10024, "Report12") = LPR_SUCCESS  
    Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.9 ParseString

Summary

The string used to parse the queue information.

Description

The string used to parse the queue reply from the LPD. For print queue information to be parsed and the relevant User, Position, JobNo, Time, Size, Filename, XString and YNumber properties set by the ActiveX, the ParseString property must have been set prior to calling the QueueData method. Each print server issues queue information in a different format. The ParseString tells the ActiveX the order in which information will be received so that it is able to extract the relevant fields. The following are parameters that can be used to describe the queue information.

Parameter	Property	Description	Valid Characters
%U	User	User	all characters except \n
%J	JobNo	Job No	All numeric characters.
%F	Filename	File name	all characters except \n
%S	Size	Job Size	Numeric characters
%P	Position	Position in Queue	Numeric characters
%T	Time	Time	Numeric character
%X	XString	User assigned string	all characters except \n
%Y	YNumber	User assigned number	Numeric character
%Cx	N/A	Specified character	The specified character. Where x is the specified character.
%W	N/A	Blank space	Blank spaces (includes TAB and new lines)
%D	N/A	Dummy	Any character other than a blank

Examples. The SunSparc Station running Unix issues queue information in the following order:

```
Greg.distinct.co:1st      [job 004greg]
      C:\autoexec.bat 1294 bytes
```

The following ParseString is therefore valid for this LPD.

```
LPR.ParseString = " %U%C:%W%P%D%W%D%W%J%D%W%F%W%S%W%D%W"
```

The line has the following meaning:

The %W parameters represent one or more blank spaces between the parameters. The other parameters are described in the order in which they appear in the parsing string. %U represents the machine name followed by a colon ":" and therefore %C: is inserted next; the position of this job in the queue %P is

next - this may only contain numeric characters, the st is therefore an invalid parameter and is represented by a dummy %D. [job is also an invalid parameter and is thus represented by %D. The job number 004 is %J and greg] is represented by another dummy %D. Next is the name of the file in the print queue represented by %F and the file size %S followed by another dummy %D, since the word "bytes" cannot be represented by a valid parameter.

The X and Y parameters can be used to retrieve other fields of interest and the corresponding XString and YNumber properties will contain these values.

If the ParseString property is empty then the QueueData method will return LPR_QUEUE_DONE and set the QueueBuffer property to the entire data retrieved from the print server. This may be used to determine the correct format of the parsing string.

Example

```
' set parsing string for the print server
LPR.ParseString = "%U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
    Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & " Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & " Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.10 Position

Summary

The position of the print job in the queue

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "P", this property will contain the position of the print job in the queue.

There is no default value for this property. This property is only used to deliver queue information and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = "%U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "Filename: " & LPR.Filename & " Position: " & LPR.Position
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If (LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "Filename: " & LPR.Filename & " Position: " & LPR.Position
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.11 PortNumber

Summary

Specifies the port number to connect to the LPD server on.

Description

The default value is 515. This will usually not need to be changed unless the LPD server is listening on a different port.

Example

```
Sub DoPrint()  
    LPR.FileType = "f"  
    LPR.PortNumber = 515  
    If not LPR.Print("\\myLpd\myprinter", "d:\plain.txt", 1024, "PlainText") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.14 Protocol

Summary

Specifies the protocol to use.

Description

The only protocol currently supported is LPR

Example

```
Sub DoPrint()  
    LPR.FileType = "f"  
    LPR.Protocol = LPR_PROTOCOL  
    If not LPR.Print("\\myLpd\myprinter", "d:\plain.txt", 1024, "PlainText") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.13 QueueBuffer

Summary

The entire unparsed information for an item in the print queue.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue, the QueueData method must then be called. After every successful call to QueueData this property contains the entire line of data in the print queue.

If the IsParsed property is False, this means the information in the QueueBuffer property was unable to be parsed. This is because this line did not match the ParseString. This may occur if the print server delivers extra information at the start of the queue information. (For example it may deliver the status of the printer on the first line, and the QueueBuffer property may contain something like "apple printer ready and waiting"). This extra data can be ignored and the QueueData method should be called again. The IsParsed property may also be False if the ParseString property is not set correctly for the particular print server. In this case the QueueBuffer will contain the line of data, and can be used to determine the changes that should be made to the ParseString.

If the ParseString property is empty then the QueueData method will return LPR_QUEUE_DONE and set the QueueBuffer property to the entire data retrieved from the print server. This may be used to determine the correct format of the parsing string.

There is no default value for this property. This property is only used to deliver queue information and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = "%U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
    Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & " Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer entire buffer for item
        DisplayStr = LPR.QueueBuffer
    End If
    Result = LPR.QueueData()
End While
' for the last time
```

```
If(Result = LPR_QUEUE_DONE) Then
  If ( LPR.IsParsed) Then
    'Display or save parameters of interest
    DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & " Filename: " & LPR.Filename
    MsgBox DisplayStr, 64, "LPR"
  Else
    'Display buffer entire buffer for item
    DisplayStr = LPR.QueueBuffer
    MsgBox DisplayStr, 64, "LPR"
  End If
Else
  MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.14 Reply

Summary

The reply from the print server.

Description

This property is set by the Delete method if there is a reply from the print server. This property will only be set if the Wait parameter of the Delete method was non zero and the print server sent a reply. Note: Not all print servers send a reply to a delete command. The content of the Reply property may explain why a job was unable to be deleted (e.g. "Permission denied.") or it may send a confirmation that the job was deleted (e.g. "Apple bob.distinct.com 001 dequeued").

There is no default value for this property. This property is used only to deliver the reply from the delete command from the server, it should be treated as read only, it is meaningless for the application to set this property.

For more information see the Delete method.

Example

```
Result = LPR.Delete("\\printmachine\myprinter", "bob.distinct.com", "001 002", 5)
If Not LPR.Reply = "" Then
    ' show reply
    MsgBox Reply, 64, "LPR"
Else If Not Result = LPR_SUCCESS Then
    ' Display error message
    MsgBox "Unable to send delete command.", 64, "LPR"
Else
    MsgBox "Sent delete command successfully.", 64, "LPR"
End If
```

2.15 Size

Summary

The size in bytes of the print job in the queue.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "S", this property will contain the size of the print job.

There is no default value for this property. This property is only used to deliver queue information and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = "%U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Size: " & LPR.Size & " Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If (LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Size: " & LPR.Size & " Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.16 Time

Summary

The time that the print job arrived in the print queue.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "T", this property will time the print job arrived in the queue.

There is no default value for this property. This property is only used to deliver queue information and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = " %U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%T%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
    Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Time: " & LPR.Time & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Time: " & LPR.Time & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.17 Timeout

Summary

The time the client will wait for a response before timing out.

Description

The time in seconds the client will wait for a response from the print server before timing out.

The default value for this property is 20.

Example

```
Sub DoPrint()  
    LPR.Timeout = 25  
    LPR.FileType = "t"  
    LPR.Width = 100  
    LPR.Indent = 10  
    LPR.PortNumber = 515  
    If not LPR.Print("\\myLpd\myprinter", "d:\plain.txt", 1024, "PlainText") = LPR_SUCCESS Then  
        MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.18 User

Summary

The name of the machine that sent the print job.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "U", this property will contain the name of the machine that sent the print job in the queue.

There is no default value for this property. This property is only used to deliver queue information, and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = " %U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.19 Width

Summary

Specifies the width of text to print in number of characters.

Description

This property specifies the width of text to print in number of characters. This is usually only used by the print server to provide basic formatting when printing a plain text file (I.e. When a file has been sent to the printer using the Print method, and the FileType property has been set to "f", "l" or "p").

The RFC1179 states that the print servers default width of text is 132 characters although this may differ between print servers. This property can be used to specify a different width.

If this property is set to a positive integer this value will be sent to the print server. It is the responsibility of the application to provide a valid value for this property. How the print server interprets this value will depend on the print server.

This property has the default value of -1, which means no width formatting information will be sent to the print server. If used this property should be set before calling the Print method.

Example

```
Sub DoPrint()  
    LPR.FileType = "f"  
    LPR.Width = 100  
    LPR.PortNumber = 515  
    If not LPR.Print("\\myLpd\myprinter", "d:\plain.txt", 1024, "NarrowText") = LPR_SUCCESS  
Then  
    MsgBox "Error. Unable to send file.", 64, "LPR"  
    End If  
End Sub
```

2.20 XString

Summary

User specified field in retrieved queue information.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "X" this property will contain the queue information that matches the "X" field in parsing string.

There is no default value for this property. This property is only used to deliver queue information and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = " %U%C:%W%P%D%W%D%W%J%W%D%W%X%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User & "Custom field: " & LPR.XString
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User & "Custom field: " & LPR.XString
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

2.21 YNumber

Summary

User specified numeric field in retrieved queue information.

Description

This property is set by the QueueData method when it parses the queue information retrieved from the print server. The Queue method must have first been called successfully to retrieve the queue information.

To get the information for each item in the queue the QueueData method must then be called. After every successful call to QueueData, the IsParsed property should be checked. If the IsParsed property is True and the ParseString contained an "Y" this property will contain the numeric queue information that matches the "Y" field in parsing string.

There is no default value for this property. This property is only used to deliver queue information and should be treated as read only, it is meaningless for the application to set this property.

For more information see the ParseString, IsParsed properties, and the Queue and QueueData methods.

Example

```
' set parsing string for the print server
LPR.ParseString = "%U%C:%W%P%D%W%D%W%J%W%D%W%F%W%Y%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\mylpd\myPrinter", "")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User & "Custom numeric field: " & LPR.YNumber
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If(Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User & "Custom numeric field: " & LPR.YNumber
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

3 Events

3.1 OnStatus

Summary

Delivers the number of bytes transferred when sending a job to the printer.

Description

This event will occur one or more times during printing to deliver total number of bytes that have been transferred to the print server.

This event will only occur after the Print method is called with a filename specified. If the application is sending the data using the PrintData method the application should keep track of the number of bytes it has sent.

To abort the print job the Abort method can be called in this event.

Example

```
Private Sub LPR_OnStatus (Bytes As Long)
    ' Update the progress
    Label.caption = Str$(Bytes) & "transferred"
End Sub
```


4 Methods

4.1 Abort

Summary

Abort the current action.

Syntax

Long Abort ()

Description

The Abort method cancels the current action and reinitializes the state of the ActiveX. Use this method to abort a queuing or printing operation.

To abort sending a print job to the print server this method can be called in the OnStatus event or between before or after a call to the PrintData method. This will in turn tell the print server to abort the print job and remove

To abort a queuing operation this method can be called before or after a call to the QueueData method.

It is important to call this method to reinitialize the state of the ActiveX if you do not call PrintData or QueueData until the printing or queuing process has been completed.

Return Value

If successful this method returns LPR_SUCCESS otherwise it returns the following error:

LPR_NO_ACTION_ERROR
There is no operation in progress to abort.

Example

```
If LPR.Print("\\myLpd\myprinter", "", 1024,"NarrowText") = LPR_SUCCESS Then
    'get data that is to be sent by calling your custom method
    Result = GetMyPrintData (Buffer, Size)
    While Size > 0 Do
        If not LPR.PrintData (Buffer, Size) = LPR_SUCCESS
            MsgBox "unable to print file", 64, "LPR"
            Exit Sub
        End if
        ' get more data to send
        Result = GetMyPrintData (Buffer, Size)
        ' if there is an error when getting your data you can abort
        If (Result = ERROR_DO_ABORT)
            LPR.Abort()
            Exit Sub
        End if
    End While
    ' send Size as 0 to show end of transfer
    LPR.PrintData("", 0)
Else
    MsgBox "unable to print file", 64, "LPR"
End If
```

4.2 Delete

Summary

Delete a print job from the print server queue.

Syntax

Long Delete (*Path*, *User*, *List*, *Wait*)

<i>Path</i>	String
<i>User</i>	String
<i>List</i>	String
<i>Wait</i>	Short

Description

This method is used to delete a print job from the printer server queue.

The *Path* parameter should be set to the path of printer. This should be the machine name and the printer in the following format "`\\mylpd\myprinter`".

The *User* parameter should be set to the user requesting the deletion of the print job. The print job will be deleted only if the user has permission to delete the print job (I.e. The user is "root" or the user sent the print job originally).

The *List* parameter should be set to the job numbers that are to be removed from the queue. Note this is not the position of the job in the queue, but the job number assigned to the job by the print server. To find out the job number of a particular job you must use the `Queue` and `QueueData` methods. Once you know the job number of the job, or jobs, you wish to remove, set the `List` parameter to the string value of the job numbers (e.g. `List = Str$(DeleteJobNo1) + " " + Str$(DeleteJobNo2)`). The job numbers should be separated with a space. See the `Queue` and `QueueData` methods and the `JobNo` property for more information.

If you are the "root" user then you can specify a user name in the list and all the jobs belonging to the user will be removed. If the *List* parameter is an empty string then the currently active print job will be deleted.

The *Wait* parameter specifies how long to wait for a reply from the server after sending the delete command. Some print servers may send a reply showing the success or failure of the delete command. If you expect a reply from the print server set the `Wait` parameter to a non zero value, this method will then wait for a maximum of *Wait* seconds for a reply from the server. If a reply is given the `Reply` property will be set to that value, otherwise the `Reply` property will be empty. If you do not expect a reply from the print server set this value to 0 and the LPR ActiveX will not wait for a response.

This method succeeds if the print server accepts the delete command. This does not necessarily mean the print job was successfully deleted. Use the `Queue` and `QueueData` methods to confirm the print job has been removed from the queue.

Return Value

If successful this method returns `LPR_SUCCESS`. If this method fails it and returns one of the following errors:

LPR_DELETE_ERROR

Print server responded negatively to this request, or did not acknowledge the request. This may occur if the print server is unable to process the ActiveX request. For example this error would be returned if the printer specified does not exist.

LPR_INIT_ERROR

Unable to initialize ActiveX. Check that the ActiveX is registered, has a valid serial number and all the support files are present.

LPR_IN_ACTION_ERROR

The ActiveX is already performing another operation. You must wait for the ActiveX to finish the current operation, or abort the operation in progress before calling this method.

LPR_SOCKET_ERROR

There has been an error at the Windows Sockets level. Check that the PortNumber property was set correctly.

LPR_CONNECT_ERROR

Unable to connect to the print server. The host name may not have been resolved, or an error occurred while attempting to establish a connection. Check the machine (host) name used in the Path in the Print method was correct. Check the PortNumber property was correct.

LPR_BAD_PATH_ERROR

The Path given for the printer is formatted incorrectly. The Path must start with a double back slash (Remember in C this will look like CString myPath = "\\mylpd\\myprinter" as the \ is a control character.). The machine name and the printer name must also be separated by the "\"

Example

```
Result = LPR.Delete("\\printmachine\myprinter", "bob.distinct.com", "001 002", 5)
If Not LPR.Reply = "" Then
    MsgBox Reply, 64, "LPR"
Else If Not Result = LPR_SUCCESS Then
    ' Display message
    MsgBox "Unable to send delete command.", 64, "LPR"
Else
    MsgBox "Sent delete command successfully.", 64, "LPR"
End If
```

4.3 Print

Summary

Send a print job to the LPD server.

Syntax

Long Print (*Path, Filename, Bytes, Title*)

<i>Path</i>	String
<i>Filename</i>	String
<i>Bytes</i>	Long
<i>Title</i>	String

Description

The *Path* parameter should be set to the path of the printer. This should be the machine name and the printer in the following format "`\\mylpd\myprinter`". The *Filename* parameter is the name of the file to print (e.g. `c:\myfile.txt`). The *Bytes* parameter is the size of data to be printed. The *Title* parameter is the title of the print job (Note. There should be no spaces in the title).

There are two different ways to send a print job to the printer. The most straight forward is if you have a file to send. In this case set the *Filename* parameter to the full path and name of the file to be sent, the *Bytes* parameter should be set to the size of the file and the *Title* parameter can be set to the title of the print job (or an empty string if no title is given). The LPR ActiveX will then send the file to the printer, and fire `OnStatus` events at intervals to show the progress of the transfer.

If you do not have the print job as a file it can be sent by buffer. In this case set the *Filename* parameter to an empty string and you must set the *Title* parameter to the title of the print job. If you know the number of bytes in the print job set the *Bytes* parameter to the size, otherwise set it to 0. The application should then call the `PrintData` method to deliver the data to the ActiveX. If the *Bytes* parameter contains the number of bytes of the print job then the data is sent directly to the LPD server. If the *Bytes* parameter is set to 0, then the entire data is spooled to a temporary local file before being sent as a file. This will be slower than if the number of bytes was known and the print job will only be sent when the final call to `PrintData` has been made, and `OnStatus` events will be fired to show the progress of the transfer.

The application should set the `FileType` and `PortNumber` properties before calling this method. The following properties are optional and if used should be set before calling this method: `Width`, `Indent`, `JobHeader`, `Class` and `JobName`.

To abort the sending of a print job you can call the `Abort` method. The `Abort` method can be called in the `OnStatus` event, or between calls to `PrintData`. This will cancel the job on the printer, and reinitialize the ActiveX from print mode.

While printing you can not call any other LPR ActiveX method until the print job has been sent, with the exception of the `Abort` method.

Return Value

If successful this method returns `LPR_SUCCESS`. If this method fails it returns one of the following errors:

LPR_INIT_ERROR

Unable to initialize ActiveX. Check that the ActiveX is registered, has a valid serial number and all the support files are present.

LPR_IN_ACTION_ERROR

The ActiveX is already performing another operation. You must wait for the ActiveX to finish the current operation, or abort the operation in progress before calling this method.

LPR_SOCKET_ERROR

There has been an error at the Windows Sockets level. Check that the PortNumber property was set correctly.

LPR_CONNECT_ERROR

Unable to connect to the print server. The host name may not have been resolved, or an error occurred while attempting to establish a connection. Check the machine (host) name used in the Path in the Print method was correct. Check the PortNumber property was correct.

LPR_PRINTER_ERROR

Print server responding negatively to this request, or did not acknowledge the request. This may occur if the print server is unable to process the ActiveX request. For example this error would be returned if the printer specified does not exist, or if the ActiveX requested the print server to accept a print job but the servers spooling was disabled.

LPR_FILE_ERROR

There has been an error while creating, reading or writing to a file. In this method it means there was an error creating, reading or writing to the temporary file for spooling.

LPR_CONTROL_ERROR

There has control file could not be formed, or it was not accepted by the print server. Check the JobHeader, FileType, Width, Indent, Class and JobName properties were set correctly before the Print method was called.

LPR_NO_MEMORY_ERROR

Unable to allocate memory.

LPR_ABORTED

This operation has been aborted.

LPR_BAD_PATH_ERROR

The Path given for the printer is formatted incorrectly. The Path must start with a double back slash (Remember in C this will look like CString myPath = "\\mylpd\\myprinter" as the \ is a control character.). The machine name and the printer name must also be separated by the "\".

Example

```
LPR.FileType = "f"
```

```
If Not LPR.Print("\\myLpd\myprinter", "d:\plain.txt", 1024, "PlainText") = LPR_SUCCESS Then  
    MsgBox "Error. Unable to send file.", 64, "LPR"
```

```
End If
```

```
Sub LPR.OnStatus(Bytes As Long)
```

```
    'Use Bytes to display the progress of the file transfer
```

```
    Label.caption = Str$(Bytes) & "transferred"
```

```
End Sub
```

4.4 PrintData

Summary

Send a print job to the print server by buffer.

Syntax

Long PrintData(*Buffer*, *BufferSize*)

Buffer Variant
BufferSize Long

Description

This method allows an application to send data directly to the print server without writing the print job first to a file. The Print method must be called before calling this method. In the Print method set the Filename parameter set to an empty string. This method can then be called to send the data to the print server.

The *Buffer* parameter should be set to the data and the *BufferSize* parameter should be set to the size of the buffer. This method can be called several times to deliver large amounts of data. When all the data has been sent this method must be called with the *BufferSize* parameter set to zero.

Note: This method is only optimal if the complete size of the print job is known before sending the print job, otherwise this method spools the print job to a local file before sending it. This makes it slower than if the size was known and the data is not sent until the final call to PrintData.

To abort sending the print job call the Abort method. This will reinitialize the ActiveX and close any current connection to the print server.

See also: Print method.

Return Value

If successful this method returns LPR_SUCCESS. If this method fails it returns one of the following errors:

LPR_IN_ACTION_ERROR

The ActiveX is already performing another operation. You must wait for the ActiveX to finish the current operation, or abort the operation in progress before calling this method.

LPR_PRINT_NOT_CALLED_ERROR

The Print method has not been called to initiate the printing process. The Print method must be called successfully before this method can be used.

LPR_TYPE_ERROR

The variant type of Buffer parameter is not supported. Only string and array types are supported.

LPR_SOCKET_ERROR

There has been an error at the Windows Sockets level. Check that the PortNumber property was set correctly.

LPR_CONNECT_ERROR

Unable to connect to the print server. The host name may not have been resolved, or an error occurred while attempting to establish a connection. Check the machine (host) name used in the Path in the Print method was correct. Check the PortNumber property was correct.

LPR_PRINTER_ERROR

Print server responding negatively to this request, or did not acknowledge the request. This may occur if the print server is unable to process the ActiveX request. For example this error

would be returned if the printer specified does not exist, or if the ActiveX requested the print server to accept a print job but the servers spooling was disabled.

LPR_FILE_ERROR

There has been an error while creating, reading or writing to a file. In this method it means there was an error creating, reading or writing to the temporary file for spooling.

LPR_DATA_ERROR

There has been an error sending the data directly from the buffer to the print server.

LPR_CONTROL_ERROR

The control file could not be formed, or it was not accepted by the print server. Check the JobHeader, FileType, Width, Indent, Class and JobName properties were set correctly before the Print method was called.

LPR_NO_MEMORY_ERROR

Unable to allocate memory.

LPR_ABORTED

This operation has been aborted.

LPR_BAD_PATH_ERROR

The Path given for the printer is formatted incorrectly. The Path must start with a double back slash (Remember in C this will look like CString myPath = "\\mylpd\\myprinter" as the \ is a control character.). The machine name and the printer name must also be separated by the "\"

Warning

When writing C# application use PrintDataEx instead of this method.

Example

```
LPR.FileType = "f"
TotalBytes = 0
If LPR.Print("\\myLpd\myprinter", "", 11024, "MyTitle") = LPR_SUCCESS Then
    ' get data that is to be sent by calling your custom method
    GetMyPrintData (Buffer, Size)
    While Size > 0 Do
        If not LPR.PrintData (Buffer, Size) = OK Then
            MsgBox "unable to print file", 64, "LPR"
            Exit Sub
        End if
        TotalBytes = TotalBytes + Size ' Can use to display progress
        ' get more data to send
        GetMyPrintData (Buffer, Size)
    End While
    ' send Size as 0 to show end of transfer
    LPR.PrintData("", 0)
Else
    MsgBox "unable to print file", 64, "LPR"
End If
```

4.5 PrintDataEx

Summary

Send a print job to the print server by buffer. To be used in C# applications

Syntax

Long PrintData(*Buffer*, *BufferSize*)

Buffer Variant
BufferSize Long

Description

This method allows an application to send data directly to the print server without writing the print job first to a file. The Print method must be called before calling this method. In the Print method set the Filename parameter set to an empty string. This method can then be called to send the data to the print server.

The *Buffer* parameter should be set to the data and the *BufferSize* parameter should be set to the size of the buffer. This method can be called several times to deliver large amounts of data. When all the data has been sent this method must be called with the *BufferSize* parameter set to zero.

Note: This method is only optimal if the complete size of the print job is known before sending the print job, otherwise this method spools the print job to a local file before sending it. This makes it slower than if the size was known and the data is not sent until the final call to PrintData.

To abort sending the print job call the Abort method. This will reinitialize the ActiveX and close any current connection to the print server.

See also: Print method.

Return Value

If successful this method returns LPR_SUCCESS. If this method fails it returns one of the following errors:

LPR_IN_ACTION_ERROR

The ActiveX is already performing another operation. You must wait for the ActiveX to finish the current operation, or abort the operation in progress before calling this method.

LPR_PRINT_NOT_CALLED_ERROR

The Print method has not been called to initiate the printing process. The Print method must be called successfully before this method can be used.

LPR_TYPE_ERROR

The variant type of Buffer parameter is not supported. Only string and array types are supported.

LPR_SOCKET_ERROR

There has been an error at the Windows Sockets level. Check that the PortNumber property was set correctly.

LPR_CONNECT_ERROR

Unable to connect to the print server. The host name may not have been resolved, or an error occurred while attempting to establish a connection. Check the machine (host) name used in the Path in the Print method was correct. Check the PortNumber property was correct.

LPR_PRINTER_ERROR

Print server responding negatively to this request, or did not acknowledge the request. This may occur if the print server is unable to process the ActiveX request. For example this error

would be returned if the printer specified does not exist, or if the ActiveX requested the print server to accept a print job but the servers spooling was disabled.

LPR_FILE_ERROR

There has been an error while creating, reading or writing to a file. In this method it means there was an error creating, reading or writing to the temporary file for spooling.

LPR_DATA_ERROR

There has been an error sending the data directly from the buffer to the print server.

LPR_CONTROL_ERROR

The control file could not be formed, or it was not accepted by the print server. Check the JobHeader, FileType, Width, Indent, Class and JobName properties were set correctly before the Print method was called.

LPR_NO_MEMORY_ERROR

Unable to allocate memory.

LPR_ABORTED

This operation has been aborted.

LPR_BAD_PATH_ERROR

The Path given for the printer is formatted incorrectly. The Path must start with a double back slash (Remember in C this will look like CString myPath = "\\mylpd\\myprinter" as the \ is a control character.). The machine name and the printer name must also be separated by the "\"

Warning

When writing C# application use PrintDataEx instead of PrintData.

```
Example If (LPR.Print("\\myLpd\\myprinter", "", 0, "MyTitle") == LPR_SUCCESS)
```

```
{
    // Initial Print call successful, send by buffer
    object tempObj = new byte[TotalBytes];
    byte[] Buffer = (byte[]) tempObj;

    // get data that is to be sent by calling your custom method
    GetMyPrintData (Buffer, Size);

    While (Size > 0 )
    {
        If (LPR.PrintDataEx (tempObj, Size) != LPR_SUCCESS)
        {
            MessageBox.Show("unable to print file.", "LPR Sample");
            Return;
        }
        // get more data to send
        GetMyPrintData (Buffer, Size);
    }
    ' send Size as 0 to show end of transfer
    LPR.PrintDataEx(tempObj, 0) ;
}
Else
    MessageBox.Show("unable to print file.", "LPR Sample");
```

4.6 Queue

Summary

Retrieve queue information from the print server.

Syntax

Long Queue (*Path*, *List*)

<i>Path</i>	String
<i>List</i>	String

Description

This method retrieves the queue information from the print server. It can be used to retrieve the queue information on all print jobs in the queue, all print jobs sent by specified users, or a specific job number. The print job information retrieved may include the position in the queue, the filename, the size, the title, job number, the time the job arrived in the queue or any other information that the print server supplies about the print job.

The *Path* parameter should be set to the path of the printer. This should be the machine name and the printer in the following format "[\\mylpd\myprinter](#)".

The *List* parameter should be set to the specific user or users to retrieve queue information for. If it is set to an empty string then all the queue information will be retrieved. The *List* parameter could also be set to a job number if the server supports retrieving queue information by job number.

This method does not deliver the queue information to the application. The QueueData method must be called several times, at least once for each item in the queue to parse the queue information and deliver it to the application.

The ParseString property should be set before calling this method.

While getting the queue information you can not call any other LPR ActiveX method until the queue is retrieved, with the exception of the Abort method.

See also: QueueData method, ParseString and IsParsed properties.

Return Value

If this method retrieves queue information it returns LPR_SUCCESS and the QueueData method should be called to parse the information. If the print server does not return any queue information this method returns LPR_QUEUE_NO_DATA, in this case there is no data to be parsed. If this method fails it returns one of the following errors:

LPR_INIT_ERROR

Unable to initialize ActiveX. Check that the ActiveX is registered, has a valid serial number and all the support files are present

LPR_IN_ACTION_ERROR

The ActiveX is already performing another operation. You must wait for the ActiveX to finish the current operation, or abort the operation in progress before calling this method.

LPR_SOCKET_ERROR

There has been an error at the Windows Sockets level.

LPR_BAD_PATH_ERROR

The Path given for the printer is formatted incorrectly. The Path must start with a double back slash (Remember in C this will look like CString myPath = "[\\\\mylpd\\myprinter](#)" as the \ is a control character.). The machine name and the printer name must also be separated by the "\"

LPR_CONNECT_ERROR

Unable to connect to the print server. The host name may not have been resolved, or an error occurred while attempting to establish a connection. Check the machine (host) name used in the Path is correct. Check the PortNumber property.

LPR_QUEUE_ERROR

The queue information was unable to be retrieved from the print server.

Example

```
' set parsing string for the print server
LPR.ParseString = " %U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for specific users
Result = LPR.Queue ("\\mylpd\myPrinter", "myUser1 myUser2")
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
    Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

4.7 QueueData

Summary

Parse the retrieved queue information.

Syntax

Long QueueData ()

Description

This method should be called to parse the queue information retrieved using the Queue method. This method should be called repeatedly to get information on each item in the queue.

This method parses the reply from the server, line by line, using the ParseString property. The ParseString property must be correctly set for the print server before the Queue method is called.

This method sets the IsParsed property. The IsParsed property will be True if the reply was successfully parsed and the relevant User, Filename, JobNo, Size, Position, Time, XString and YNumber properties have been set. This will occur if the line of reply from server can be matched to the parsing string as specified by the ParseString property.

The IsParsed property will be False if the reply does not fit the parsing string. In this case the QueueBuffer property will contain the entire line of reply from the server.

If the ParseString property is empty then the QueueBuffer property will contain the entire queue information as retrieved from the server and this method will return LPR_QUEUE_DONE.

The User, JobNo, Filename, Position, Time, Size, XString and YNumber properties will be set if IsParsed is True, and the ParseString contains the corresponding parameter to these properties. Otherwise the string properties will be empty, and the numeric properties will be set to -1. Some print servers may not support all these fields and the ParseString must be set according to the queue information sent by the print server. See the ParseString property for more information.

The QueueBuffer property will contain the complete response by the print server for that item in the queue. This is made available to deliver any extra information delivered by the print server that can not be parsed.

If there is more items in the queue to retrieve data for then this method will return LPR_QUEUE_DATA. When all the data has been received this method will return LPR_QUEUE_DONE. It is important that this method is called until LPR_QUEUE_DONE is returned. To abort this operation before the result LPR_QUEUE_DONE is returned, the Abort method must be called, this will reinitialize the ActiveX from queuing mode.

While getting the queue information you can not call any other LPR ActiveX method until the queue is retrieved, with the exception of the Abort method.

See also: Queue method, ParseString and IsParsed properties.

Return Value

If successful this method returns LPR_QUEUE_DATA or LPR_QUEUE_DONE. The result of LPR_QUEUE_DATA indicates that there is more data to be parsed and this method must be called again. The result of LPR_QUEUE_DONE means the parsing has been completed. If this method fails it returns one of the following errors:

LPR_IN_ACTION_ERROR

The ActiveX is already performing another operation. You must wait for the ActiveX to finish the current operation, or abort the operation in progress before calling this method.

LPR_QUEUE_NOT_CALLED_ERROR

The Queue method has not been called to retrieve the queue information to parse. The Queue method must be called successfully before this method can be used to parse the queue.

Example

```
' set parsing string for the print server
LPR.ParseString = " %U%C:%W%P%D%W%D%W%J%W%D%W%F%W%S%W%D%W"
' get queue for all users and job numbers
Result = LPR.Queue ("\\mylpd\myPrinter", "", -1)
If (Not Result = LPR_SUCCESS) Then
    MsgBox "Queue failed", 64, "LPR"
    Exit Sub
End If
Result = LPR.QueueData()
While (Result = LPR_QUEUE_DATA) Do
    'still more to parse
    If LPR.IsParsed Then
        'Data parsed - Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
    Result = LPR.QueueData()
End While
' for the last time
If (Result = LPR_QUEUE_DONE) Then
    If ( LPR.IsParsed) Then
        'Display or save parameters of interest
        DisplayStr = "User: " + LPR.User + " Job: " & LPR.JobNo & "Filename: " & LPR.Filename
        MsgBox DisplayStr, 64, "LPR"
    Else
        'Display buffer or disregard as unwanted extra info
    End If
Else
    MsgBox "Queue parsing failed", 64, "LPR"
End If
```

4.8 ValidatePrinter

Summary

Validate that a printer is available and ready to accept print jobs.

Syntax

Long ValidatePrinter (*Path*)
Path String

Description

This method establishes a connection with the print server and determines if the specified printer is available and ready to receive a print job.

The *Path* parameter should be set to the path of the printer. This should be the machine name and the printer in the following format "`\\mylpd\myprinter`".

Return Value

If successful this method returns LPR_SUCCESS. If it fails it and returns one of the following errors:

LPR_INIT_ERROR

Unable to initialize ActiveX. Check that the ActiveX is registered, has a valid serial number and all the support files are present

LPR_IN_ACTION_ERROR

The ActiveX is already performing another operation. You must wait for the ActiveX to finish the current operation, or abort the operation in progress before calling this method.

LPR_SOCKET_ERROR

There has been an error at the Windows Sockets level.

LPR_BAD_PATH_ERROR

The Path given for the printer is formatted incorrectly. The Path must start with a double back slash (Remember in C this will look like CString myPath = "\\mylpd\myprinter" as the \ is a control character.). The machine name and the printer name must also be separated by the "\"

LPR_CONNECT_ERROR

Unable to connect to the print server. The host name may not have been resolved, or an error occurred while attempting to establish a connection. Check the machine (host) name used in the Path is correct.

LPR_PRINTER_ERROR

Print server responding negatively to this request, or did not acknowledge the request. This may occur if the print server is unable to process the ActiveX request. For example this error would be returned if the printer specified does not exist, or if the ActiveX requested the print server to accept a print job but the servers spooling was disabled.

Example

```
If not LPR.ValidatePrinter ("\\printmachine\myprinter") = LPR_SUCCESS Then  
    MsgBox "Printer does not exist or can not currently except print jobs", 64, "LPR"  
End If
```

5 Registry Entries

5.1 LPR Registry Entries

This information is provided to document the registry entries used by the LPR ActiveX. These entries are used internally and should not need to be changed.

The following registry entries are stored under the key below:

\HKEY_LOCAL_MACHINE\SOFTWARE\Distinct\Ocx\LPR32

Value	Type	Description
EOTFilter	REG_SZ	<p><i>Use to filter End of Transmission characters from beginning or end of print job.</i></p> <p>Set this value data to the EOT character to be filtered from the print job. This registry value does not exist by default. This entry is required only if printing files contain the EOT character and this is causing the print server to prematurely terminate the connection.</p> <p>Note: To make this entry run the Registry Editor, regedt32.exe under Windows NT and regedit.exe under Windows 95. Go to the following location in the registry: \HKEY_LOCAL_MACHINE\Software\Distinct\Ocx\LPR32. From the Edit menu select New, and then String Value. Type in "EOTFilter" for the Value Name, then double click on the Value Name and type in the ASCII value of the character (i.e. "4") for the Value Data. When you next print with the ActiveX this character should be removed from the beginning and end of the file.</p>
LPRJobNo	REG_DWORD	<p><i>The next internal job number to be used for constructing a control file.</i></p> <p>This registry value is used and updated internally by the ActiveX and should not be modified.</p>
LPRLocalPort	REG_DWORD	<p><i>The next local port to make a connection on.</i></p> <p>This registry value is used and updated internally by the ActiveX and should not be modified.</p>