CFX_POP3 - Tag Reference

26 - May - 2005 build 263

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CFX_POP3 - Introduction

CFX_POP3 is a fully featured POP3 client in a dynamic link library for Cold Fusion. Providing simultaneous access to both the HTML and plain text versions of an e-mail where available, CFX_POP3 also extends the information that is returned in the queries beyond CFPOP and includes such things as 'content-type' and the entire message source of the e-mail if required. CFX_POP3 also includes the capability to dynamically allocate columns in the queries it returns extending the capabilities of CFX_POP3 beyond any other Cold Fusion POP3 mail extension.

CFX_POP3 Professional introduces several other attributes for extended POP3 mailbox management and includes SSL/TLS support. Also introduced in CFX_POP3 Professional is enhanced SPAM filtering using Bayesian statistics.

PLEASE NOTE: To use the Bayesian filters in CFX_POP3 Professional, the additional file (sqlite.dll) that ships with CFX_POP3 Pro must be installed in the system path. This is usually C:\WINNT\System32 or C:\WINDOWS\System32.

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CFX_POP3 - Syntax

```
<CFX_POP3 SERVER="servername"
     PORT="port_number"
     USERNAME="username"
     PASSWORD="password"
     TIMEOUT="timeout"
     ACTION="action"
     WHITELISTACTION="action"
     WHITELIST="emailaddresses"
     FILENAME="filename"
     NAME="queryname"
     MESSAGENUMBER="numbers"
     UID="uids"
     SPAMUID="uids"
     HAMUID="uids"
     ATTACHMENTPATH="path"
     FILTERATTACHMENTS="fileextentions"
     FILTERATTACHMENTMODE="filtermode"
     FILTERSUBJECTCHARS="characterlist"
     EMLPATH="path"
     STARTROW="number"
     MAXROWS="number"
     DATETIMEFORMAT="datetimeformat"
     DELIMITER="delimiter"
     LISTDELIMITER="delimiter"
     CHARSET="charset"
     QUERY="filterquery"
     FILTERPATH="path"
     MATCHHEADERS="headerlist"
     LOGTOFILE="filename"
     SMTPSERVER="servername"
     SMTPPORT="port_number"
     SMTPDOMAIN="domain_name"
     SMTPUSER="username"
     SMTPPASS="password"
     SPAMDBDIRECTORY="directory"
     SPAMDB="filename"
     HAMDB="filename"
     THROWONERROR="Yes/No"
     ONLYRETURNSPECIFICMAILS
     GENERATEUNIQUEFILENAMES
     LOWCPU
     RETURNMESSAGESOURCE
     ALWAYSCREATEQUERY
     USEAPOP
     USESSL
     SCOREMAIL>
```

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SERVER

Required. Host name (*pop.yourdomain.com*) or ip address (w.*x.y.z*) of the POP server. Not required for LoadFromFile

PORT

Optional. Defaults to standard POP port, 110.

USERNAME

Optional. If no username is specified, the POP connection is anonymous.

PASSWORD

Optional.

TIMEOUT

Optional. Time in seconds until the connection times out. Defaults to 30 seconds. To achieve the same functionality as before use Timeout="Infinite".

ACTION

Optional. Specifies the mail action. There are six possible values:

- GetHeaderOnly – (Default) Returns message header information only.
- GetAll – Returns message header information, message text, and attachment if ATTACHMENTPATH is specified.
- GetUIDList – Retrieves a list of UIDs from the server **
- LoadFromFile – Loads an rfc822 email from a local source.
- Delete – Deletes messages on the POP server.
- Filter – Filters out emails using specified rule sets.
- Stat – Fastest way to check if there are any mails on your server.
- Train – Train the Bayesian filters. **
- Whitelist – Add e-mail addresses to the SPAM filter whitelist. **

WHITELISTACTION **

Optional. Specifies the action to perform on the whitelist.

- ADD - adds the e-mail addresses specified
- DELETE - remove the e-mail addresses specified

WHITELIST **

Optional. Required for action "WHITELIST". Specifies a list of e-mail addresses to add or remove from the whitelist.

FILENAME

Optional. Required for action "LoadFromFile". Specifies a list of local rfc822 files to load.

NAME

Optional. The name you assign to the index query. Required for "GetHeaderOnly", "GetAll" and "LoadFromFile".

MESSAGENUMBER

Optional. Specifies a list of messagenumbers for the given action. MESSAGENUMBER is required for ACTION="Delete". If it is provided for ACTION="GetHeaderOnly" or ACTION="GetAll", only referenced messages will be retrieved. If it is omitted for ACTION="GetHeaderOnly" or ACTION="GetAll", all messages available on the server are returned.

UID

Optional. Used as an alternative to MESSAGENUMBER. Specify a list of UID's to CFX_POP3 and it will return only those mails that match those UID's. UID will override the MESSAGENUMBER attribute if both are passed. There is a small performance overhead when using UID as it requires extra communications with the POP3 server.

SPAMUID

Optional. Specify a list of UID's that relate to SPAM messages to train on.

HAMUID

Optional. Specify a list of UID's that relate to HAM messages to train on.

ATTACHMENTPATH

Optional. Allows attachments to be written to the specified directory when ACTION="GetAll" or "LoadFromFile". If an invalid ATTACHMENTPATH is specified, no attachment files are written to the server.

FILTERATTACHMENTS [*]

Optional. By passing a list of comma separated filename extensions (inclusive of the '.'), CFX_POP3 will not attempt to save the attachments that match the filter to disk.

FILTERATTACHMENTMODE [*]

Optional. Setting the value to 'ALLOW' only allows files specified in FilterAttachments to be saved. Setting to 'DENY', all attachments matching the FilterAttachments extension list are ignored. Defaults to 'DENY'.

FILTERSUBJECTCHARS [*]

Optional. Specifies the characters to remove from a subject in order to allow better SPAM filtering.

EMLPATH [*]

Optional. Allows emails' to be written to the specified directory as rfc822 compliant messages when ACTION="GetAll" or "LoadFromFile". If the path supplied is invalid, no files are saved.

STARTROW

Optional. Specifies the first message number to be retrieved. Default is 1. This attribute is ignored if MESSAGENUMBER or UID is specified.

MAXROWS

Optional. Specifies the maximum number of entries for mail queries. This attribute is ignored if MESSAGENUMBER or UID is specified.

DATETIMEFORMAT [*]

Optional. Specifies the DateTime format to be returned by the tag. Defaults to "dddd, dd/mmm/yyyy hh:nn:ss".

Values	Display
D	Displays the day as a number without a leading zero (1-31).
dd	Displays the day as a number with a leading zero (01-31).
ddd	Displays the day as an abbreviation (Sun-Sat).
dddd	Displays the day as a full name (Sunday-Saturday).
M	Displays the month as a number without a leading zero (1-12). If the m specifier immediately follows an h or hh specifier, the minute rather than the month is displayed.
mm	Displays the month as a number with a leading zero (01-12). If the mm specifier immediately follows an h or hh specifier, the minute rather than the month is displayed.
mmm	Displays the month as an abbreviation (Jan-Dec).
mmmm	Displays the month as a full name (January-December).
yy	Displays the year as a two-digit number (00-99).
yyyy	Displays the year as a four-digit number (0000-9999).
H	Displays the hour without a leading zero (0-23).
Hh	Displays the hour with a leading zero (00-23).
N	Displays the minute without a leading zero (0-59).
Nn	Displays the minute with a leading zero (00-59).
S	Displays the second without a leading zero (0-59).
Ss	Displays the second with a leading zero (00-59).
Z	Displays the millisecond without a leading zero (0-999).
Zzz	Displays the millisecond with a leading zero (000-999).
am/pm	Uses the 12-hour clock for the preceding h or hh specifier, and displays 'am' for any hour before noon, and 'pm' for any hour after noon. The am/pm specifier can use lower, upper, or mixed case, and the result is displayed accordingly.
A/p	Uses the 12-hour clock for the preceding h or hh specifier, and displays 'a' for any hour before noon, and 'p' for any hour after noon. The a/p specifier can use lower, upper, or mixed case, and the result is displayed accordingly.
/	Displays the date separator character.
:	Displays the time separator character.

DELIMITER [*]

Optional. Specifies the delimiter to use when returning attachments and their properties. Defaults to <TAB> if none specified.

LISTDELIMITER [*]

Optional. Specifies the delimiter to use when CFX_POP3 processes lists.

CHARSET [*]

Optional. Specifies to CFX_POP3 the codepage that should be used when returning data to ColdFusion. Defaults to iso-8859-1.

QUERY *

Optional. Specifies to CFX_POP3 the filter criteria for the filtration of emails.

See the section regarding mail filters further on for more information.

FILTERPATH *

Optional. Specifies the path to where mails are saved when the filter action is SAVEDELETE.

MATCHHEADERS *

Optional. Using special techniques, this field allows you to search for and return values from the first instance of a field in the headers that are not currently specified within the standard CFX_POP3 query result sets.

An example of this would be to check the X-Mailer field in the headers of a mail. To do this, simply specify X-Mailer and the query will return with an extra column named 'Xmailer'. Note that the hyphen is missing from the query column name. Indeed, all hyphens are stripped from the column names of the fields that you may search for.

Another example would be where you are interested in Content-Transfer-Encoding and the Mime-Version of the emails. Specify MatchHeaders="Content-Transfer-Encoding,Mime-Version" in the attributes and returned along with the standard query will be two extra columns called 'ContentTransferEncoding' and 'MimeVersion' that will contain the relevant data.

LOGTOFILE *

Optional. Specifies the location and name of the log file. Useful for debugging purposes but increases the processing required for operation.

SMTPSERVER *

Required if the filter query contains any rules that require a BOUNCE. SMTPSERVER specifies the mail server that you can connect to in order that the bounce messages can be sent.

SMTPPORT *

Optional. SMTPPORT specifies the port number which is used to connect to the SMTPSERVER on. Defaults to 25 if not specified.

SMTPDOMAIN *

Required if the filter query contains any rules that require a BOUNCE. Used to append to parts of the bounce message to make it look authentic. If one were to bounce messages that were incoming to paul.vernon@web-architect.co.uk, the SMTPDOMAIN would be web-architect.co.uk.

SMTPUSER *

Optional. Tells CFX_POP3 the username for SMTP AUTH functions. For SMTP auth functions to be used, a Username and Password must be supplied.

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SMTPPASS *

Optional. Tells CFX_POP3 the password to use for SMTP AUTH functions.
For SMTP auth functions to be used, a Username and Password must be supplied.

SPAMDBDIRECTORY **

Optional. Specifies the directory in which to store the SPAM and HAM databases.
Eg. D:_UserData\CFX_POP3Bayes

SPAMDB **

Optional. Specifies the name of a SPAM corpus database. Eg. MySPAM.

HAMDB **

Optional. Specifies the name of a HAM corpus database. Eg MyHAM.

THROWONERROR *

Optional. Tells CFX_POP3 to behave differently when an exception is encountered.
Rather than raising an error in the traditional way, when set to 'NO' CFX_POP3
returns variables with error codes to indicate problems rather than stopping page
execution dead. Valid values are 'Yes' and 'No'. Defaults to 'Yes'.

ONLYRETURNSPECIFICMAILS *

Optional. Forces CFX_POP3 return no mail if no UIDs that are passed into the tag
match the messages stored on the server.

GENERATEUNIQUEFILENAMES

Optional. Tells CFX_POP3 to generate unique filenames for all attachments.
The presence of the attribute is enough to enable the unique filenames functionality.

LOWCPU *

Optional. Tells CFX_POP3 to yield to other processes more than normal.

RETURNMESSAGESOURCE *

Optional. Tells CFX_POP3 to place the message source of an email into the query
that is returned to Cold Fusion (Can be memory intensive). Use of this attribute is
strongly discouraged. See notes on implementation.

ALWAYSCREATEQUERY *

Optional. Tells CFX_POP3 to create a query result regardless of whether there is any
mail or not. By adding this attribute, full CFPOP compatibility is achieved when
checking for mail. This attribute is also useful when looping over several mailboxes.

USEAPOP [*]

Optional. Tells CFX_POP3 to use the APOP authentication method instead of the standard cleartext version. This function requires a server that supports APOP.

USESSL [**]

Optional. Forces CFX_POP3 to use SSL sockets. This is not required when the port is specified as 995 or TLS connections are used.

SCOREMAIL [**]

Optional. Only scores mail when using "GETALL" and "GETHEADERONLY" actions. Uses spam filters to score the incoming mail. In order to score the mail as accurately as possible, a performance drop is introduced because more data than just the headers is transferred to CFX_POP3 than when SCOREMAIL is not specified (about 8Kb in total). When you are processing lots of small mails (less than 8Kb in size), it may be more efficient to just use GETALL instead however if you are processing lots of large e-mails then GETHEADERONLY still provides a major performance when compared to GETALL.

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[*] These attributes are not part of the standard CFPOP tag and represent extra functionality.
[**] Only available in CFX_POP3 Professional.

CFX_POP3 - Query Variables

The following table describes the variables that are returned by CFX_POP3.

CFX_POP3 Query Variables	
Variable Names	**Description**
queryname.RecordCount	The total number of records returned by the query.
queryname.CurrentRow	The current row of the query being processed by CFOUTPUT
queryname.ColumnList	The list of column names in the query.
CFX_POP3.MessageCount	Returns the number of mails in the mailbox.
CFX_POP3.ExecutionTime	Cumulative time required to process the query in milliseconds
CFX_POP3.MatchHeaders	Returns a sorted, de-duplicated list of headers that have been searched for
CFX_POP3.FilterRuleCount	Number of rules passed in by the query
CFX_POP3.FilterMailCount	Number of mails in the mailbox that were checked
CFX_POP3.ErrorMessage	Only set if THROWONERROR is set to 'NO'. This variable contains the error message normally passed to the CF Exception Handlers.

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MessageHeader and Body Columns

The following table lists the message header and body columns that are returned by CFX_POP3 when you specify the ACTION attribute to be either GetHeaderOnly/Filter or GetAll/LoadFromFile.

Message Header and Body Columns		
Column Name	**GetHeaderOnly/ Filter returns**	**GetAll/LoadFromFile Returns**
*Queryname.*date	Yes	Yes
*Queryname.*timezone 1	Yes	Yes
*Queryname.*from	Yes	Yes
*Queryname.*fromname 1	Yes	Yes
*Queryname.*fullfrom 1	Yes	Yes
*Queryname.*messagenumber	Yes	Yes
*Queryname.*uid	Yes	Yes 3
*Queryname.*replyto	Yes	Yes
*Queryname.*deliveredto 1	Yes	Yes
*Queryname.*subject	Yes	Yes
*Queryname.*cc	Yes	Yes
*Queryname.*to	Yes	Yes
*Queryname.*fullto 1	Yes	Yes
*Queryname.*header	Yes	Yes
*Queryname.*contenttype 1	Yes	Yes
*Queryname.*octets	Yes	Yes
*Queryname.*body	Not available	Yes
*Queryname.*bodycharset 1	Not available	Yes
*Queryname.*rich 1	Not available	Yes
*Queryname.*richcharset 1	Not available	Yes
*Queryname.*html 1	Not available	Yes
*Queryname.*htmlcharset 1	Not available	Yes
*Queryname.*attachments	Not available	Yes 4
*Queryname.*attachmentfiles	Not available	Yes 4
*Queryname.*contenttypes 1	Not available	Yes 4
*Queryname.*contentids 1	Not available	Yes 4
*Queryname.*filesizes 1	Not available	Yes 4
*Queryname.*filteredattachments	Not available	Yes 4
*Queryname.*messagesource 1	Not available	Yes 2
*Queryname.*emlfilename 1	Not available	Yes 5
*Queryname.*mailscore 1	Not available	Yes 7
*Queryname.*filterfilename 1	Yes 6	Not available
*Queryname.*filteraction 1	Yes 6	Not available
*Queryname.*RulesMatched 1	Yes 6	Not available

1. Additions to the tag over and above the functionality of CFPOP. If you don't want to use them you don't need to.
2. As specified by switch ReturnMessageSource
3. Not LoadFromFile
4. Only when an AttachmentPath is specified
5. Only when EMLPath is specified
6. Only available when action is FILTER.
7. Only available when action is GETALL and SCOREMAIL is specified.

When using the MatchHeaders attribute, extra columns containing the results of the header search routine will be passed along with the standard ones listed above. The names of the extra columns will be the same as the values passed into MatchHeaders with the exception that any hyphens in the fields will be removed. e.g. MIME-VERSION becomes MIMEVERSION

The STAT function

The STAT function does just what you would expect. It sends a STAT request to the server that then returns the number of mails currently held in the mailbox. This value is returned in the CFX_POP3.MessageCount variable. This is by far the fastest way to check if a mailbox has mail or not without actually retrieving anything. No queries are returned with the STAT action as no other data is retrieved from the server.

The GETUIDLIST function

The GETUIDLIST function retrieves a list of UID values from the server that is returned in a query with two columns called MESSAGENUMBER and UID.

The FILTER query

The following table lays out the columns for the filter query when you wish to pre-filter your mailbox for either saving to a designated directory then deleting the mail from the queue or alternatively, just performing a simple deletion from the queue. The Delete action has performance comparable with the GetHeaderOnly action whereas the SaveDelete action has performance comparable with a GetAll action.

Column Name	Valid values
HEADER	FROM, PARTIALFROM, FROMFRAGMENTS, FROMPATTERN, TO, PARTIALTO, TOFRAGMENTS, TOSTARTSWITH, TOENDSWITH, TOSTARTEND, SUBJECT, PARTIALSUBJECT, SUBJECTFRAGMENTS. SUBJECTPATTERN
MATCHSTRING	Free-text or comma-separated list
ACTION	DELETE, SAVEDELETE, BOUNCE

An example query would have data as follows. This example has similar data that could be represented by using just the fragment-based rules however, for this example; all combinations of header and matchstring are shown.

HEADER	MATCHSTRING	ACTION
FROM	paul.vernon@web-architect.co.uk	DELETE
PARTIALFROM	@web-architect.co.uk	SAVEDELETE
FROMFRAGMENTS	Paul,web-architect	DELETE
FROMPATTERN	Paul *@web-architect.co.uk	DELETE
TO	support@web-architect.co.uk	SAVEDELETE
PARTIALTO	Support@	DELETE
TOFRAGMENTS	Support,web-architect.co.uk	SAVEDELETE
TOSTARTSWITH	Paul.	DELETE
TOENDSWITH	@web-architect.co.uk	SAVEDELETE
TOSTARTEND	Paul.,@web-architect.co.uk	DELETE
SUBJECT	AS SEEN ON TV!!!	SAVEDELETE
PARTIALSUBJECT	ON TV!	DELETE
SUBJECTFRAGMENTS	SEEN,TV,!	SAVEDELETE
SUBJECTPATTERN	AS SEEN * TV *	DELETE

TO, FROM AND SUBJECT must be an exact match for the mail.

The PARTIALTO, PARTIALFROM and PARTIALSUBJECT values allow you to pass a sub-string. If that sub-string appears anywhere in the fields, the filter is a match.

The TOFRAGMENTS, FROMFRAGMENTS and SUBJECTFRAGMENTS values allow you to specify any number of fragments that may be combined in the field. Only if all the fragments are found does the filter match.

The BOUNCE function

The bounce function requires CFX_POP3 to have sight of an SMTP server. Headers and message similar to the ones outlined here are sent.

The bounce is a fake as you need a SMTP Server to create a true bounce message but as you will see, it should fool most automated systems into thinking that it is a real bounce.

The bounce message headers

The headers below are an actual bounce from CFX_POP3.

```
Return-Path: <MAILER-DAEMON@web-architect.co.uk>
Received: from smtp.web-architect.co.uk ([217.31.128.128])
          by mta07-svc.ntlworld.com
          (InterMail vM.4.01.03.37 201-229-121-137-20020806) with ESMTP
          id <20030324204702.WJB25105.mta07-svc.ntlworld.com@smtp.web-architect.co.uk>
          for <paul.vernon@ntlworld.com>; Mon, 24 Mar 2003 20:47:02 +0000
Received: from defiant.smtp.web-architect.co.uk ([194.207.89.201])
        by smtp.web-architect.co.uk (8.11.6/8.11.0) with SMTP id h2OKoXG03542
        for <paul.vernon@ntlworld.com>; Mon, 24 Mar 2003 20:50:33 GMT
Message-ID: <SAK20030324$C2CF59C9.$29D9AA1C@defiant.smtp.web-architect.co.uk>
Reply-To: "Mail Delivery Subsystem" <MAILER-DAEMON@web-architect.co.uk>
From: "Mail Delivery Subsystem" <MAILER-DAEMON@web-architect.co.uk>
To: "paul.vernon" <paul.vernon@ntlworld.com>
Subject: Undelivered Mail: bounce me
Date: Mon, 24 Mar 2003 20:48:18 GMT
MIME-Version: 1.0
Content-Type: multipart/report;
      report-type=delivery-status;
      boundary="-----_SAKbound_20_4818_20030324_45DF4690.3E4B66D7"
Content-Transfer-Encoding: 8Bit
X-Priority: 3
```

The bounce message

This is the message that accompanies the bounce.

```
Your message

      To:             <paul.vernon@web-architect.co.uk>
      Subject:        bounce me
      Sent:           Mon, 24 Mar 2003 20:38:20 GMT

did not reach the following recipient(s):

paul.vernon@web-architect.co.uk on Mon, 24 Mar 2003 20:38:37 GMT
      The recipient name is not recognized
            Unknown Recipient "paul.vernon"
```

The message being bounced

The original bounced message is attached to the bounce mail for completeness.

CFX_POP3 - FilterSubjectChars

This attribute is specifically used with the FILTER action to remove characters from a subject line that are used to obfuscate the real meaning of the subject. The subject that is then parsed through the rules is a concatenation of the original subject together with the character stripped version. This ensures that all of the rules can be applied effectively.

The attribute accepts a comma separated list of characters for parsing. If you wish to strip out the ','
character from a subject, pass the word 'comma' as an element in the list, CFX_POP3 will replace the
word 'comma' with a ',' character internally in order to strip out that character.

CFX_POP3 – Bayesian SPAM filters

CFX_POP3 introduces enhanced SPAM filtering capabilities with the addition of Bayesian filters.

Before Bayesian filters can be relied upon to filter out spam they must be trained. To train CFX_POP3,
you must tell it what in essence a good or a bad mail is which involves specifying where CFX_POP3
should store its SPAM and HAM databases for persistent storage of the mail corpuses and pass a list of
UID values to it indicating they are SPAM or HAM by setting them in the SPAMUID or HAMUID
attribute.

Both the SPAMUID and HAMUID can be specified at the same time and so one pass of the mailbox
will train CFX_POP3 for both SPAM and HAM.

The whitelisting functions go hand in hand with the Bayesian filters. If a FROM address is in the
whitelist then the mail is automatically assigned a SPAM probability of 0%.

To add addresses to the whitelist, a delimited list must be passed to the tag using the WHITELIST
attribute. The CFX_POP3 Action must be set to 'WHITELIST' and the WHITELISTACTION attribute
must be set to either 'ADD' or 'DELETE'.

The design of the Bayesian filtering system means that CFX_POP3 can offer different SPAM filters for
every account it accesses. All you have to do is specify the right table names.

If the tables do not exist, they will be created automatically on first use.

PLEASE NOTE: To use the Bayesian filters in CFX_POP3 Professional, the additional files
(sqlite.dll and sqlite.exe) that ship with CFX_POP3 Pro must be installed in the system path. This is
usually C:\WINNT\System32 or C:\WINDOWS\System32.

CFX_POP3 - Supported Codepages

Previous versions of CFX_POP3 supported a limited number of codepages as listed below.

ISO-8859-1, ISO-8859-2, ISO-8859-3, ISO-8859-4, ISO-8859-5, ISO-8859-6, ISO-8859-7, ISO-8859-8, ISO-8859-9, ISO-8859-10, ISO-8859-13, ISO-8859-14, ISO-8859-15, CP1250, CP1251, CP1252, CP1253, CP1254, CP1255, CP1256, CP1257, CP1258, KOI8-R, CP895, CP852, UCS-2, UCS-4, UTF-8, UTF-7, mUTF-7.

With the release of build 257 and subsequent versions of the tag, the way CFX_POP3 handles codepage conversions has changed and instead of using its own routines for performing codepage conversions, it now depends of the underlying codepage conversion routines that are embedded in Windows.

This has the effect of allowing CFX_POP3 to support any codepage that you have installed as part of your Windows installation and because Windows is capable of supporting more codepages than CFX_POP3 previously supported, it increases the capabilities of CFX_POP3 significantly.

CFX_POP3 currently support over 130 codepages with MLang as opposed to the original 29 as listed above.

By moving over to the Windows MLang libraries, support for the "modified UTF-7" codepage has been removed. Although utf-7 is still fully supported.

To install codepage tables in Windows

To get CFX_POP3 to convert the codepage of a given e-mail to something that CFMX supports, you need to install the codepage conversion tables in Windows. This will depend on your OS but the general instructions for Windows 2000 Server and Windows 2003 Server

For Windows 2000 Server

Open the Regional Settings applet in the Control Panel.

In the general tab, hit the advanced button. Tick ALL the codepage conversion tables.

Apply everything (you may need the Windows Installation disk) and reboot if necessary.

For Windows 2003 Server

Open the Regional Settings applet in the Control Panel.

In the Advanced tab, Tick ALL the codepage conversion tables.

Apply everything (you may need the Windows Installation disk) and reboot if necessary.

This will install all the character set conversion tables that Windows supports. CFX_POP3 accesses them for its own conversion routines.

PLEASE NOTE: MLang ships with Internet Explorer 5.x and above and as such, an appropriate version of Internet Explorer must be present on your system.

CFX_POP3 - Implementation Notes

The STAT function can be used to poll a mailbox quickly reducing the load on your server when all you are doing is checking to see how many messages are in the mailbox. Previously, at least the headers had to be retrieved to derive this figure and if maxrows was set, the total number of mails in the mailbox was not available at all.

The FILTER functions provide a fast and simple method for email filtering and flexibility in use so that you can experiment with new rules without losing ANY of your incoming mails. It is suggested that when you are configuring your rules that you always choose SAVEDELETE as the action until you are happy that your rules are not filtering out false positives. Once you are happy that all the mails that are saved out to your filtered mail repository are all correctly filtered, you can then change the filter action from SAVEDELETE to DELETE or BOUNCE which will reduce the resources required to process and filter your mailbox.

Not only can the FILTER be used for the removal of unwanted mail, but when used to look for specific email addresses, you can use SAVEDELETE to filter the mail out, then use the query returned to loop through the email addresses and attach the file specified in the query to an email created with CFMAIL to forward it to a specific address.

The BOUNCE function introduces a way of automatically bouncing mail according to the rules that you set out in the filter query. The theory is that bouncing mails that are identified as SPAM can over time significantly reduce the amount of SPAM you get in the first place. This is however dependent on the SPAM originating from a valid e-mail address.

Using RETURNMESSAGESOURCE is strongly discouraged due to the size of the queries that can be returned to Cold Fusion. If you really need to have access to the message source of an email it is recommended that the EMLPATH attribute be specified and the emails are loaded into a file variable once CFX_POP3 has completed. By accessing the message source of an email in this way, the memory and performance overheads on Cold Fusion are substantially reduced.

RETURNMESSAGESOURCE is not currently deprecated but may be in a future release.

With the introduction of the HTML attribute in the 'GETALL' query results, the potential for HTML embedded script based viruses becomes a real threat to your users. By allowing your users to view the HTML version of an email, you are providing a possible way for a virus to enter your users system through their browser.

The file stream architecture of CFX_POP3 introduced an interesting issue when used in conjunction with virus detection software. Basically, CFX_POP3 saves out the streams to your systems TEMP directory using a *.$$$ filename format. Once the download is completed, the file is then read into CFX_POP3 for parsing. It is at this point that a virus detection program may parse the *.$$$ file and stop CFX_POP3 from reading the stream. This of course is not desired functionality as the files are temporary, do not get executed and are deleted once parsed. It would be far better for the system to allow the *.$$$ files to be read/written un-impinged, scanning the parsed attachments after they have been decoded to determine whether or not a virus exists in the email. To that end, it is recommend that a *.$$$ filename pattern is added to your exclusion list in your virus detection software to allow CFX_POP3 to operate correctly. Consult your virus detection software for further information regarding this issue. – As of build 246, the .$$$ extension has changed to .tmp as some anti-virus solutions no longer allowed the specification of .$$$ as a valid file extension.

Cold Fusion MX

It is recommended that at least Cold Fusion MX 6.1 is used. Tests indicate that the stability of CFMX prior to 6.1 was poor. CFMX 6.1 stability seems to have solved the issues that were being experienced. Performance appears quicker and lock-ups seem to have been resolved under load with CFX tags in general.

CFX_POP3 - Frequently asked questions

Q. Should CFX_POP3 be kept loaded by Cold Fusion or not?

A. This does not really matter either way although there is a performance increase if the tag is kept in RAM.

Q. Can GetHeaderOnly tell me if there are attachments in the mail?

A. No, GetHeaderOnly really does just that. It knows no more about the email at this point than you do. To enable GetHeaderOnly to give you that information, it would internally have to do the same job as a GetAll action. This would be a major loss of performance so will not be done although this is how CFPOP currently works (v 4 through 5).

As a workaround, check the octets of the mail and the content-type field. If the content-type is multipart and the octets are quite large then you can be pretty sure there are attachments in the mail.

Q. I've checked my mailbox and I'm getting mails with no body… What gives?

A. CFX_POP3 works in a slightly different manner to CFPOP. Basically, you get an extra column in the query returned called HTML. By adding this column, CFX_POP3 is able to place the text version of the mails body in the BODY field and the HTML version of the body in the HTML field. If there is no text version, then the BODY field will be blank. Try checking whether there is any data in the HTML field.

Q. CFX_POP3 doesn't seem to be saving out my emails or attachments?

A. CFX_POP3 will not create a directory if it does not exist. To this end, if you specify a directory that does not exist, CFX_POP3 cannot save out any emails or attachments.

Q. CFX_POP3 was free…. Why are you charging for it now?

A. CFX_POP3 was for a long time freeware and we would have liked to keep it that way however due to the amount of people that use the tag, support for it has started to have an impact on our workload so we decided to make a nominal charge for the download of our tag in order that we can continue to support the tag to the level that we do.

We intend to offer bug fixes to all our registered users for free by providing them with a user download area. Any tags that you have previously purchased from new media development will be available in that area.

You will be permitted three (3) downloads per release once registered.

Q. Is CFX_POP3 available on any other platform?

A. CFX_POP3 is written in Delphi and as such could be ported to Kylix for a Linux implementation however, there are no plans to do so currently.

Q. Where does CFX_POP3 save its temporary stream files?

A. CFX_POP3 saves the stream files to the system temp directory of the account that the Cold Fusion Service is logged in under. Add the debug attribute to find out where that is.

Q. Can I have the source code?

A. No.

Q. How long do you intend to support CFX_POP3?

A. Currently, CFX_POP3 is used in several Cold Fusion projects that we are involved with. As such, we actively support CFX_POP3 and will do for the foreseeable future. If bugs or errors are found, then it is in our interests to fix them. Where suggestions are made, they sometimes take longer to make it into CFX_POP3 but nine times out of ten; they do make their way in.

Q. I have GENETRATEUNIQUEFILENAMES set to 'NO' but the filenames are still unique. What is going on?

A. GENERATEUNIQUEFILENAMES is a flag. It is not a Boolean variable. This means that CFX_POP3 checks to see it the attribute is there only and not whether or not you are specifying a value. If it's there then you get unique filenames. Remove the attribute altogether to get the original filenames.

Q. I've just upgraded to this version from an old one. CFX_POP3 seems to be slower than before is this right?

A. If you used a version of CFX_POP3 prior to the 7th Jan 2003, the performance of CFX_POP3 has been reduced slightly from that version onwards with the introduction of the internal locking processes to ensure thread-safety and the log file functions. What this means is that CFX_POP3 is doing a lot more internal work to check if it is allowed to create and write files to the disk before it does. The trade-off is lower performance for greater stability.

Q. I seem to get the error 'Windows socket error: An existing connection was forcibly closed by the remote host (10054), on API 'recv'' quite often. What does it mean?

A. This error is a bit of a strange one. 10054 is the 'connection reset by peer' error which means that the server disconnected CFX_POP3 before CFX_POP3 was ready to be disconnected. The error 10053 'software caused connection abort' is similar to 10054.

Both can happen for many reasons but the most common ones are poor network connectivity and too many connections from one IP address. Some mail servers allow only three or four connections from one IP address at a time. If you attempt to make more connections then the oldest connection will be forcibly closed. Use something like the following code to limit the number of connections from CFX_POP3 to your mail server.

```
<cfset MaxConnects = 4> <!--- experiment with this value --->

<!--- Randomly pick a value and append it to the lockname --->
<cfset UseConnection = RandRange(1, MaxConnects)>
<cfset lockname="pop.server.com" + "_" + UseConnection>

<!--- then lock the call to CFX_POP3 using the lockname --->
<cflock name="#lockname#" type="exclusive" timeout="60">
        <cfx_pop3 server="pop.server.com" ....... >
</cflock>
```

Q. Seeing as CFX_POP3 is thread-safe, do I still need to use CFLOCK like the Cold Fusion manuals tell me to?

A. That depends! If you are in an environment where you have two or more calls to CFX_POP3 on the same page request then it is imperative that you lock all instances of CFX_POP3 inside ONE lock. This is to ensure that each 'POP session', which may include multiple calls to CFX_POP3 in the same web-page, is discrete and the account being accessed cannot be accessed by another page request that is running at the same time.

If your POP3 access only entails a single call to the CFX_POP3 tag on any given request then there is no need to explicitly use CFLOCK as CFX_POP3 incorporates its own locking mechanisms that can deal with this eventuality.

If you are experiencing problems with connectivity, then locking may help with your problems as outlined above.

Q. After reading the last couple of **Q & A's,** I'm pretty sure that I need to lock the CFX_POP3 session. How best do you suggest I do that?

A. The best way to lock a CFX_POP3 session is to use a name based lock. The best possible lock name to choose would be along the lines of 'username@host' in order to lock out access to CFX_POP3 calls on a per account basis. CFX_POP3 has internal locking mechanisms that take care of thread safety when writing files out to disk and so on. If you need to limit the connections to the server at the same time then the following code should be used.

```
<!--- this example locks two calls to CFX_POP3 to create a "session" and --->
<!--- then goes on to lock each call to the server to limit the number --->
<!--- of connections that can be made by CFX_POP3 to your mail server --->
<!--- substitute the words username and host for your variables --->

<cfset MaxConnects = 4> <!--- experiment with this value --->

<!--- 1st, lock the session --->
<cflock name="username@host" type="exclusive" timeout="60">

        <!--- Randomly pick a value and append it to the lockname --->
        <cfset UseConnection = RandRange(1, MaxConnects)>
        <cfset lockname="host" + "_" + UseConnection>

        <!--- then lock the call to CFX_POP3 using the lockname --->
        <cflock name="#lockname#" type="exclusive" timeout="60">
                <cfx_pop3 server="pop.server.com" user="username" ...... >
        </cflock>

        <!--- your code goes here --->

        <!--- Randomly pick a new value and append it to the lockname --->
        <cfset UseConnection = RandRange(1, MaxConnects)>
        <cfset lockname="pop.server.com" + "_" + UseConnection>
        <cflock name="#lockname#" type="exclusive" timeout="60">
                <cfx_pop3 server="pop.server.com" user="username" ...... >
        </cflock>

</cflock>
```

Q. Can I change the bounce message for the spam filter?

A. There are no plans to allow customisation of the message returned by the bounce function.

Q. Why don't you pick up my Mail settings from the registry? Come to think of it why don't you spool to the CFMAIL spool directory when you bounce messages?

A. CFX_POP3 was built so that it could be implemented with any version of Cold Fusion. With that in mind, Cold Fusion MX does not store its mailer settings in the registry like previous versions of Cold Fusion. Instead it uses an XML file. Cold Fusion does not pass version information across to CFX tags and so CFX_POP3 will not know where to look for the settings.

On the second point, Cold Fusion MX again spools mail differently to CF 5 and below. This makes spooling bounce messages very difficult. By letting CFX_POP3 do the work for you, you gain a little bit on the performance side of things.

Q. Are you planning on writing an SMTP mailer?

A. No. A project was started which worked in a limited fashion and was shelved due to time constraints.

Q. Do you know if I can use this tag to connect to an MS Exchange server? If so what is the format of the username?

A. CFX_POP3 should work with any server capable of POP3 support. If an account were set-up for POP access only, CFX_POP3 would be limited to accessing the Inbox.

If the server is configured for IMAP access, you can change the port of CFX_POP3 to 143 and have limited access to the IMAP account. Some IMAP servers allow the use of 'username\foldername' to gain access specific folders. CFX_POP3 has not been specifically tested with IMAP but should work.

Q. I can't connect to my POP3 server. Can you help?

A. A little known trick is to try to telnet to your POP3 server on port 110 from your Cold Fusion Server. The following instructions are for Windows 2000. Other platforms may differ.

1. At a CMD prompt type 'telnet yourPOPserver 110'
2. Type 'USER yourusername'. Press enter.
3. Type 'PASS yourpassword'. Press enter.
4. Type 'STAT' to see how many mails you have in your mailbox.
5. Type 'QUIT' to close your connection.

If this works, double-check your settings in Cold Fusion. If they are OK, contact us.

Q. What is APOP?

A. APOP is a POP3 extension to allow a client to authenticate with a POP3 server by sending a hashed value along with the username rather than a clear text username and password. APOP uses the MD5 algorithm to generate an MD5 hash.

Q. I have a suggestion, how do I get in touch?

A. Suggestions are great, they are what help CFX_POP3 evolve, I may not do exactly what is suggested, but I can usually come up with something pretty close! Get in touch using the contact details in the support section below.

Q. What's the sqlite.dll for?

A. To use the Bayesian filters in CFX_POP3 Professional, the additional files that ship with CFX_POP3 Pro must be installed in the system path. This is usually C:\WINNT\System32 or C:\WINDOWS\System32.

Q. What happened to web-architect?

A. As our business has grown, it became inevitable that the company would change its status from a sole trader to a private limited company (Ltd). When this occurred, we attempted to register our company as web-architect Ltd however in the UK, to use the word 'architect' in your company name, you must be an architect of buildings. 'Architect' is one of a handful of protected words which also includes 'Royal'. Because of this, we had to change our name and new media development seemed to fit.

CFX_POP3 - Support

We have seen on newsgroups in the past that people have assumed that there is no support for CFX_POP3 because it is free. This is not the case. CFX_POP3 is actively supported and we will attempt to help with any issues that you experience with it.

If possible, when you experience an error with CFX_POP3 a full description of what CFX_POP3 was doing at the time would be helpful. Using the LogToFile feature of CFX_POP3 greatly enhances the chances that an error can be identified and a solution being provided.

If you believe the problem to be with a specific email, try to use the new EMLPATH attribute to save out the mail so that it can be sent to new media development for testing and debugging. As an aside, we use Outlook 2k as our mail software, it has an unusual 'feature' in that it re-writes attachments that are '.eml' as Microsoft formatted '.msg' files. Please, when you send an attached email to me for testing, zip it up otherwise we will not be able to help.

Contact details

Support is available through the following channels. Although this software is freeware, we endeavour to support it to the best of our abilities.

mailto:support@newmediadevelopment.net

http://store.newmediadevelopment.net/contact.cfm

Testing

CFX_POP3 has been tested using Cold Fusion MX 6.1, ColdFusion MX 7 and BlueDragon 6.2 on Windows 2003 Web server and Windows 2003 Standard running IIS 6. There is no reason to believe that CFX_POP3 will not work on older OSes and versions of ColdFusion as previous builds were tested on Windows 2000 extensively using CF 4.x and CF5.

If anyone would like to volunteer for beta testing of new features then drop us a line.

CFX_POP3 - Updates

CFX_POP3 is always evolving. The latest version of CFX_POP3 is available for download from the URL below. Before reporting a bug it is always worthwhile checking to see if you have the latest version. Your bug may already be fixed!

http://store.newmediadevelopment.net/cfdevelopment.cfm

CFX_POP3 - Change log

26 – May – 2005 (build 263)

Rebuilt with latest SSL layer components, added the FILTERATTACHMENTMODE attribute to provide extra flexibility when filtering attachments in an e-mail.

28 – Jan – 2005 (build 261)

Added support for XXencoded e-mails. Also addressed an issue where CFX_POP3 threw an exception when it encountered a corrupt UUEncoded e-mail. The behaviour was unnecessary and CFX_POP3 now follows the same model as popular desktop mail clients like Outlook Express by skipping the corruption and completing the decoding for the remainder of the attachment.

27 – Dec – 2004 (build 260)

A fix has been implemented to handle e-mail addresses that illegally use a ';' character which stops CFX_POP3 entering into an infinite loop and consuming all CPU resources.

1 – Dec – 2004 (build 259)

To compensate for what seems to be a bug in Windows XP and Windows2003, I have added a workaround into the codepage conversion routines when converting from hz-gb-2312 to utf-8.

The bug does not seem to be present in Windows 2000. Essentially, the workaround converts from hz-gb-2312 to utf-7 and then from utf-7 to utf-8. This workaround works on all three platforms and is now added into the tag as a special case conversion. Users who do not receive mail in hz-gb-2312 codepage and do not convert to utf-8 should see no difference between build 259 and build 258.

21 – Nov – 2004 (build 258)

Extensive testing with GMail to ensure the correct operation of CFX_POP3 Pro with this new service has been carried out and a bug was found in CFX_POP3 Pro causing it to hang when specifying a UID to retrieve a message from the GMail POP account. This was attributed to a faulty SSL call waiting for a server response and has been fixed. I did find a bug in GMail which at the time of writing has not been fixed which renders POP access except for GETALL useless however the GMail development team assure me it will be fixed soon.

The function to populate the internal UID list from the UID attribute did not preserve the case of the list. This caused problems with some mail servers (including GMail) and so the case of the UIDs as they are passed into the tag is respected.

A new action, GETUIDLIST has been integrated into the CFX_POP3 Pro tag. This action retrieves a list of UID values from the server and is intended to help in an application that needs to identify any new mails that you may have received since you last checked your mailbox.

The ".vtm" file that ships with the package has been updated to reflect recent changes to the tags attributes.

16 – Nov – 2004 (build 257)

The bug that was leaving the '_' character in quoted-printable encoded text has been fixed. This has been a long standing bug that originally stripped out all '_' characters and the original fix applied left in too many '_' characters in the text. The new fix correctly handles all eventualities and is less complex than the original solution and its original fix.

The support for codepage conversion tables using the Windows MLang libraries has been implemented to take the number of supported codepage tables from under 30 to over 130.

http://store.newmediadevelopment.net/cfdevelopment.cfm

02 – Nov – 2004 (build 256)

A randomly occurring hang in CFX_POP3 Pro was removed that was related to loading the sqlite.dll file. The hang has been removed and if the problem occurs, an exception is thrown.

Fixed the character set conversion routines. The conversions were not working in all circumstances and sometimes the conversions were being skipped altogether.

13 – Oct – 2004 (build 255)

Added support for the richtext mailpart.

A bug was fixed that was stripping headers from embedded e-mails as attachments because the content-type was not matching the test condition correctly.

The filename of an attachment would get mangled if the MIME headers were poorly formed.

The SCOREMAIL flag now works with the GETHEADERONLY action too. There is a performance drop with this process as GETHEADERONLY retrieves slightly more than just the headers of the e-mail when SCOREMAIL is set. Maximum download per mail when SCOREMAIL is set with GETHEADERONLY is 8Kb per message.

18 – Sep – 2004 (build 253)

A major performance increase when logging into POP mailboxes with thousands of mails in. When checking for UIDL sipport, CFX_POP3 was asking for an entire list of UIDs from the server. This behaviour has been changed to only list the UID for the first message if there is one.

CFX_POP3 Pro now includes Bayesian mail filtering capabilities. The Bayesian filters implement a simple set of SQLite tables.

18 – Aug – 2004 (build 250)

The SSL sockets implementation in CFX_POP3 Pro hung when connecting to specific servers. This has been fixed.

In CFX_POP3 Pro and Std, there was a problem decoding some quoted-printable mails with a malformed header.

09 – Aug – 2004 (build 249)

Built in SSL sockets for CFX_POP3 professional. Added the ENTIREHEADER search facility to the FILTER query.

Several improvements have been made to the sockets layer. Changed the temporary file extension from .$$$ to .tmp for better integration with anti-virus software. Improved speed of logins when using CRAM-MD5 authentication.

A bug has been fixed in the message parsing routines that was truncating filenames when they contained a ';' character.

A 'vtm' file has finally been written and accompanies the distribution.

09 – Jul – 2004 (build 247)

Added a workaround for strange behaviour of CFMAIL which URLEncodes attachment filenames when the files are zip files.

08 – Jul – 2004 (build 246)

Altered the temporary file extensions from .$$$ to .tmp as more anti-virus products no longer allow the specification of .$$$ as a valid file extension to ignore.

24 – May – 2004 (build 244)

A minor bug handling attachments that contained semi-colons (;) in their filenames resulted in the filename being truncated before the semi-colon.

29 – Apr – 2004 (build 242)

A request was made for CFX_POP3 not to return any messages if no UID or MessageNumbers that were passed in were valid on the server rather than the previous (now default) behaviour that returns all mails. The introduction of the flag OnlyReturnSpecificMails will force CFX_POP3 to exit without returning the contents of the mailbox if the list of UID values do not match the content of the server.

Fixed a minor 'cosmetic' bug when using messagenumbers where message numbers were ordered using an alphanumeric algorithm.

25 – Apr – 2004 (build 240)

There was a 48 byte memory leak when POP protocol conversation is being recorded and an anti-virus application detects a virus being written into the log file.

Tidied up handling of rfc822 mails further.

17 – Apr – 2004 (build 239)

Another small (12 bytes again) memory leak has been fixed when parsing mails without a 'from' address. Further improvements to the handling of rfc822 mails sent as attachments have been made.

15 – Apr – 2004 (build 238)

Fixed an issue introduced by build 237 when checking on the connected status of the socket. Some IP stacks do not populate the remotehost field in the stack and CFX_POP3 would not connect. This feature was rolled back to CFX_POP3 build 236 functionality.

03 – Apr – 2004 (build 237)

When GENERATEUNIQUEFILENAMES was disabled, some mails were causing CFX_POP3 to have problems when saving attachments. A small fix to remove non-OS compliant sequences has been added before saving.

A small memory leak has been fixed (12 bytes) when running against a server that allows multiple connections to the same mailbox from different IP addresses. If CFX_POP3 tried to read a mail that was deleted by the other mail client, CFX_POP3 returns with an error 'Unable to Open that message'. It was also leaking a tiny amount of memory.

26 – Mar – 2004 (build 236)

An error reported regarding some attachments that could not be saved due to invalid characters in their name was addressed. (This occurred where bounce messages attached the original e-mail and the subject of the e-mail was encoded.)

Memory leak in the message parsing routines that seems to have been there from day one has been found and fixed. The leak was approximately 4Kb per CFX_POP3 call.

Added a feature that returns the server response when a login fails. This should help debugging connection issues in future.

10 – Mar – 2004 (build 235)

Fixed a nasty bug with a poorly formed bounce message where CFX_POP3 would recurse indefinitely, fail with a Stack overflow and force Cold Fusion to restart. Typically prior to the error, memory usage would increase rapidly (several hundred Mb in a few seconds) and then be freed as CFX_POP3 unwound its memory allocations as performed in the recursive section of the process.

19 – Feb – 2004 (build 234)

Added character set conversion capabilities and added a 'fix' to work around a problem with some JVM's and CFMX 6.1 where a list of integers is passed into CFX_POP3 as a list of floats.

13 – Jan – 2004 (build 232)

A couple of bugs with the Authenticated SMTP login methods required attention as they did not work in all cases. AUTH PLAIN has been added as a supported authentication mechanism. CFX_POP3 now supports AUTH CRAM-MD5, AUTH LOGIN and AUTH PLAIN.

Improvements have been made to the bounce message header format.

03 – Jan – 2004 (build 229)

A feature request to add in visibility of the charset attributes for the text and HTML content of the e-mail resulted in the addition of two fields to the returned query. BodyCharset and HTMLCharset. When available, the charset for each part is used to populate the fields in the query.

30 – Dec – 2003 (build 227)

An addition to the timeout attribute to specify an 'infinite' wait period so CFX_POP3 works in the same way as it used to if necessary. A minor problem was encountered by Kishore Tadiparthi when processing MMS messages generated by Nokia phones. The filename of any attachment was not being specified in the Content-Type or Content-Disposition fields instead it is specified in the Content-Location field. CFX_POP3 now correctly identifies attachment filenames under these circumstances.

24 – Nov – 2003 (build 225)

CFX_POP3 now has a TIMEOUT attribute. Also, the addition of the attribute FILTERSUBJECTCHARS allows CFX_POP3 to be even more effective when filtering mail and looking for SPAM keywords that have been obfuscated by the addition of semi-random symbols from the character set.

04 – Nov -2003 (build 223)

Fixed a small error when the Action was 'STAT'. CFX_POP3 wrongly required a NAME attribute to be passed. The workaround was to pass a NAME attribute that is then subsequently ignored by CFX_POP3. This fix no longer requires the workaround.

29 – Oct – 2003 (build 222)

Fixed an access violation in the disconnect process. Fixed a parsing issue when reading the To field of an e-mail where there are multiple addresses.

25 – Oct – 2003 (build 221)

Fix to the message parsing components when attempting to parse an HTML mail written in MS Word and being stored on an Exchange server. An extraneous content-type existed in the headers of the mail and caused CFX_POP3 to decode the mail incorrectly. CFX_POP3 now has improved header parsing to deal with all eventualities. Re-compiled with Delphi 7 and got a 39Kb reduction in the size of the dll.

5 – Sep – 2003 (build 220)

Minor fix to a function that strips quotes from the beginning and end of a string. If the string was 1 character long and was a ", then the tag encountered an access violation. The tag now checks its bounds to stop the access violation from occurring.

31 – Aug – 2003 (build 219)

Added a throwonerror attribute to allow the handling of error situations programmatically when CFX_POP3 encounters problems with connectivity and/or parsing e-mails.

Improved identification routines for servers that support the UIDL command. If the server does not support the UIDL command, CFX_POP3 no longer fails later on in execution with the 'Not Connected. Sending NOOP' message.

A fix to the AuthSMTP login has been implemented. A buffer was being created but not initialised correctly causing inconsistent behaviour.

29 – June – 2003 (build 216)

A bug was reported to us regarding handling of redirected mails from Eudora and other e-mail handling issues that were also related to the way Eudora formats email addresses in the headers.

These examples were being handled incorrectly.

abc@def.com (by way of "Some one, Some where" <ghi@jkl.com>)

abc@def.com (Some one)

There was also an obscure memory leak regarding handling incorrectly formatted e-mails where a ';' was placed in the e-mail address.

"Jack Bell" <abc@def.com;> was being handled incorrectly and causing a very small memory leak. The issue is so obscure however that we have never seen it in a live environment.

CFX_POP3 also did not return anything in the FROM or TO fields if there was no '@' symbol to be found.

Example

To: Someone

Returned nothing previously but now it returns 'Someone' in the To field. This operates exactly as MS Outlook and Outlook Express.

25 – June – 2003 (build 215)

Intermittent hang in CFX_POP3 removed. This hang was introduced with the bug fix in build 204 to solve some issues with NT mail. The bug fix has had to be removed until a better solution can be implemented. Quoted-printable encoded e-mail addresses containing '_' characters now works correctly. Implemented a more robust way of checking whether the client connection has been made correctly. On some platforms, checking the Connected state of the socket returned true regardless of its actual state. The connection process now also checks the Remote address to ensure that it is populated and is not '0.0.0.0'.

03 – June – 2003 (build 212)

Issue with qmail in that even if the APOP extensions are not in place, on connect it returns a timestamp which indicates that APOP is installed. This is not necessarily the case and to work around this, a new attribute UseAPOP has had to be introduced. This is really a kludge as the transparent use of APOP should be attainable if the servers were to adhere to the RFCs.

29 – May – 2003 (build 211)

Modified header processing to handle escape codes in headers.

Fixed a small bug in the multipart processing routine where the end of message boundary was being added to the output of the TEXT or HTML field in malformed mails.

Fixed a minor bug in the new base64 decoder routine that added a CRLF on to the end of the decoded data.

Fixed a bug in the handling of rfc/822 forwarded mails. If the attached mail itself had an attachment, the attachments filename was being used to save the mail out as an attachment instead of the Subject line.

CFX_POP3 should now support AUTH LOGIN and AUTH CRAM-MD5 for SMTP. This function complies with the relevant RFC's and produces output that matches the RFC's but has not been tested against any mail servers. If an SMTP username and password are specified, then CRAM-MD5 is attempted followed by LOGIN followed by an anonymous connection.

Added a little more checking on the Log file creation routines to make sure that the path to the file is valid and the object now throws an exception if it isn't.

19 – May – 2003 (build 209)

Fixed an EConvertError issue with incorrectly formatted dates in the mail headers. If CFX_POP3 receives a mail with a non-standard date that it cannot convert to a TDateTime object, it now defaults to the systems current time rather than raising an error.

Altered the LOADFROMFILE function to accept multiple files instead of just one at a time. This will significantly reduce overheads and improve processing times if you are loading lots of rfc822 mails from a local store.

Altered log to only add temp directory at initialisation. Also removed the entry indicating the thread ID as it is superfluous.

Optimized the internal locking to improve the performance of the tag. This has involved removing several locks that were unnecessary as the level of granularity was too low and the code in question was being locked at a higher (and more suitable) level anyway.

Had a first stab at APOP authentication. This should be totally transparent to the user. Hopefully there should be no problems although all testing has been theoretical against the RFC test data.

14 – May – 2003 (build 207)

Re-introduced the error with decoding Quoted-Printable binary files where once decoded, they contain null characters. Delphi's native string handlers see the null character as the end of the string when in this case it most definitely is not. Changed the code to use C-style strings that are basically just pointers to the memory that the string is held in. – Thanks to Loren Strand for bringing this to my attention.

13 – May – 2003 (build 206)

Fixed an ERangeCheck error when compiling with range checking turned on in the UUDecoder function. This is not necessarily a bug per se as range checking is turned off in the production dll for performance and the code runs without error in its original form however, the code is now tidier and runs with range checking turned on or off regardless.

CFX_POP3 now sports far better CPU usage and is much less intensive even on large files. Language specific thread safety issues have also been addressed so hopefully, there should be no more random access violations or EInvalidPointer operations from this build onwards and testing would indicate that this is the case. Also searching Google on the technique I have used to solve the problem bears out the theory that the problem should now be fixed for good.

11 – May – 2003 (build 204) – bugfix release for Rob Barron

Fixed an issue with the Sockets when running with a SendMail for NT server. It would seem that the sockets implementation of SendMail sends its responses using more than one socket operation. This had the effect of causing CFX_POP3 to think there was no mail there because when it was expecting the response from a STAT command, it was still receiving data from the response for the PASS command – Thanks to Rob Barron for raising the issue and providing such great diagnostics for me!

Converted the base64 decode routines to Assembler. This has had the effect of increasing data throughput on the decoders by over 2000% (benchmarked on a P4 1.8GHz processor). If you are processing large amounts of base64-encoded attachments, you should notice a major increase in the performance of the tag. In practical terms this means that a file of 1.2Mb in size takes over 1.5 seconds less time to decode. Also during extensive tests, Range Checking was enabled and tested for using the old base64 decoder and the new one. The old decoder has several Range violations that appear not to affect operations when range checking is turned off however the new decoder has no Range Checking errors when Range Checking is enabled. Generally Range Checking is turned off for performance reasons once code goes into production however, in the past the Range Checking function was not enabled during the testing phase before release. This range checking issue may have been responsible for some access violations under load.

Minor cosmetic bug in the base64 encoding function fixed. Bounce function only.

General improvements to the performance of the filter system, and the addition of wildcard pattern matching for the FROM and SUBJECT headers using the '*' character as the wildcard for filtering out mails against a specific pattern.

Using some new diagnostic techniques for dll's, the occurrence of Access Violations and EInvalidPointer errors has been reduced significantly.

18 – Apr – 2003 (build 202) – bugfix release for Cameron Junge

Added the LISTDELIMITER attribute. This gets round a problem for some users who have POP servers that use ',' characters in their UID values. Never officially released although, one user has this version.

30 – Mar – 2003 (build 197)

Added the STAT function to increase the speed of checking for mails. No data retrieval is required to check a mailbox now. If GETHEADERSONLY was used, it could still take time to download all the headers when in actual fact all that was required was whether or not there was any mail on the server. This update provides that feature.

Moved the new CFX_POP3_Variables class into a separate unit to remove the friend relationship between it and the rest of the dll.

Made the SMTPPORT attribute optional.

Altered the fix in build 196 to be platform independent (Much nicer than the original fix). Reports back about build 195 and 196 have been extremely encouraging regarding Access Violations or lack thereof since the removal of all static variables.

28 – Mar – 2003 (build 196)

Optimised the header parsing routines regarding headers that contain e-mail addresses. The resultant optimisation means faster processing and a much reduced source-code footprint.

There was a minor difference between CFPOP and CFX_POP3 reported when GENERATEUNIQUEFILENAMES is not specified. CFX_POP3 now checks all paths passed into it and appends a '\' character where necessary. Bug and workaround reported by Thomas Klaeger.

Removed remaining static variables, which meant that all for loops were changed to while loops.

Added time-zone to bounce message date.

27 – Mar – 2003 (build 195)

Removed an issue first raised and partially fixed in the 16th Jan release regarding the '/' '\' and ':' characters in usernames. Tidied the code somewhat, improved the SMTP components socket layer updating it to work in the same way as the POP3 socket layer. Fixed the bounce message text, as there were a couple of minor omissions in the text.

Removed all but four local variables (loop counters must be simple variables). All other variables have been encapsulated in a simple class that is instantiated when CFX_POP3 is called. This should combat Access Violations due to unsafe access of static variables.

24 – Mar – 2003 (build 193)

Removed all pointers from third party components. Delphi does not require the explicit use of pointers for most operations and so I removed them for efficiency wherever possible. Also typecasting from the original item to a pointer can introduce exceptions.

Fixed a bug with the date parsing routine where the date returned could be 30 Dec 1899. The date routine now correctly parses all POP3 format dates.

Added a new FILTER action called BOUNCE. When you want to BOUNCE a message to the original sender, now you can. The bounce response is fully outlined above. CFX_POP3 now has a built in SMTP Client so that it can automatically send out mails bypassing any need for <CFMAIL> when bouncing mails.

09 – Mar – 2003

No changes to source code at all in this build. Borland released an update to Delphi that replaced some of the files that are linked in to CFX_POP3. The patch fixes issues such as Access Violations and high CPU usage under load where a Delphi App can stop responding. Updated Delphi and re-built the dll.

05 – Mar – 2003 (build 190)

A minor error in the exception handlers was allowing raw exceptions to escape the dll in some cases causing a TagCFX::Execute error to be logged in the CF application log. The error was introduced in build 189 and has now been removed. Re-tests indicate that over prolonged high load requests, the tag is performing very well indeed.

04 – Mar – 2003 (build 189)

Added a critical section around the TClientSocket create function plus a few other tweaks here and there have removed the last of the Access Violations in the code. As far as I can tell, the creation of the socket and port allocation in Delphi is not thread safe and the tag ran the possibility of creating two

sockets on two different threads with the same port number. This would obviously cause issues within the client components so a critical section was added to negate the possibility.

24 – Feb – 2003

Several changes to the sockets layer and thread locking mechanism to improve performance and stability. The POP client units have also undergone an overhaul, removing any trace of events from the tag. The original purpose of the third-party mail components in CFX_POP3 was for a Windows application, which is inherently single threaded. To that end, the components used the messaging subsystem for notification of errors by the components. Using events in this way, all the threads that were running CFX_POP3 would be susceptible to one thread failing because they would all get notified of the error (they all share the same ProcessID). This would cause objects to get closed down prematurely in the sub-components of the dll without the main processes in CFX_POP3 knowing. When access a sub-component was next attempted, an Access Violation would occur. Because the event was being fired in another thread, the effects on the remaining threads was totally random hence the length in time to track this down…

13 – Feb – 2003

The fix in the version released on the 11th re-introduced an access violation so more load testing and alterations were completed to remove the problem.

11 – Feb – 2003

A TagCFX::execute error was reported in the last two versions of the dll which I was unable to replicate however, since the reports, I have been able to replicate the problem which was found to be caused by the exception handlers that were added into the CFAPI. These exception handlers effectively caused the original exception to be hidden and replaced with a non-CF exception which when reported back to Cold Fusion caused the TagCFX::execute error. The extra exception handlers were removed and the original exceptions are now reported correctly. Exceptions that were being hidden included login problems, attribute errors and POP protocol errors.

09 – Feb – 2003

AlwaysCreateQuery did not work with LOADFROMFILE. This has been fixed.

08 – Feb – 2003

Although the last release was far more stable, there were reports of further exceptions with the tag under load so a more detailed code review and extreme load testing stage was undertaken to try to discover where exactly the errors were occurring. As it turns out, the errors were genuinely random within the tag however, they were caused by a couple calls to the OS which are as it turns out not at all thread safe. Testing this version of the dll under load consisted of four-hour sessions running 200 threads, stopping the test as soon as an exception occurred, making a change and then re-testing. If the tag seemed to be more stable a full overnight test was run to gauge if the changes were making the tag more or less stable under extended periods of heavy load.

Once the tag appeared stable the tests were re-run to ensure that the exception free run was not a fluke.

Introduced a build number in the debug output to display version number of the tag.

03 – Feb - 2003

CFX_POP3 has undergone a major code review with all non-essential and unsafe code being removed. This has had several effects although; the main aim of the code review was to remove all Access Violations that occur when under load. To develop the type of load that causes Access Violations to occur, the Microsoft Web Application Stress Tool was used, with 30 threads (by default Cold Fusion only runs 5 threads) running for hours at a time.

Along with the stress testing and empirical evidence to track down the Acces Violations, several non-thread safe function calls were removed, all third party components have been altered with any functions that were globally available being encapsulated into objects ensuring that any function called is a localised instance. Also added were exception handlers for the CFAPI Request object, locking functions for several areas of the code.

Once the code review was completed, any unnecessary units were removed from the code which reduced the compiled file size from just under 500Kb to just over 250Kb.

A minor bug was found with the date time conversion routines that caused exceptions if the local time separator was not a ':'. CFX_POP3 now respects the time separator of the localised OS.

Fixed an infinite loop that was found when handling a malformed multipart/alternative mail.

30 – Jan – 2003

Extra debug added. Accessing e-mails by UID was found to be temperamental on some platforms so a different technique was used to implement the UID matching functionality. This solved the issues and also increased its performance slightly.

26 – Jan – 2003

Attribute added to the tag called LogToFile. This enables CFX_POP3 to log its processes to a file for review at a later date. Interesting to look at when CF is put under heavy load to see how the threads interact.

Small bug fix to filter where mails that matched more than one filter had their deletion attempted more than once. This caused CFX_POP3 to fail with a Not Connected error.

22 – Jan – 2003

Added extra filters rules to CFX_POP3 to allow more flexible rule-sets to be built. Specification of exact start and end properties of an email address in the TO field can now be achieved. This is a stricter method of matching than the TOFRAGMENTS version so you can be more precise with your filters. TOFRAGMENTS also had a minor bug in it in that if the TO field was empty then the mail was identified as a positive match to ALL the TOFRAGMENTS rules. The frequency of mails with no TO field at all is extremely rare.

Found that the Mutex locks were not being released when exceptions occurred even with exception handling in place, so the Mutex release mechanisms were revised to guarantee release under all circumstances.

21 – Jan – 2003

Problems were encountered with the thread safe locking mechanisms on dual processor machines. Removed all the complexity from the locks, which was designed to improve performance and gone with just straight Mutex locking instead. Improved the performance of the locking mechanisms so that unnecessary blocking is not encountered. The previous version was too conservative in its approach to locking.

Found an exception caused by the bug fix of the 16th that fixed the infinite loop in the address population routines. If the mail address was blank then the tag halted with an Access Violation.

Many thanks must go to Jad of Market America, Inc. for all his feedback and patience whilst we went through the debugging process eliminating all the possibilities so that we could get the most stable solution possible and still be thread safe.

Minor bug in the code that decodes quoted-printable encoded headers. This was similar to an old bug in the quoted-printable decoder routines for attachments. Essentially, the '_' character could be replaced by a ' ' character under certain rare circumstances.

16 – Jan – 2003

Bug found in mail address list population routines. This bug was found when around 1000 Spam mails with malformed headers hit out live servers in the space of 10 minutes. A malformed To or ReplyTo list could force CFX_POP3 into an infinite loop, this loop kept allocating the last address in the header to the list over and over again. Within 1 minute of CFX_POP3 processing this malformed header, memory usage leapt from 140Mb in use to 1.5Gb at which point the server ran out of memory, triggered an Eoutofmemory exception and the exception handlers freed up all the memory as CFX_POP3 gracefully closed down. At least it didn't leak!

Minor oversight in the new thread-safe file naming convention meant that users using a virus scanner proxy like the POProxy service from Symantec could not download any mail. This is due to the default proxy username delimiter being a '/' which when used in the username caused CFX_POP3 to fail as the username is one of the constituent components that ensure unique filenames. CFX_POP3 now strips out and '/', '\' and ':' replacing them with a '-' character when creating a filename.

Increased debug messages for increased transparency to aid with debugging.

12 – Jan – 2003

New action introduced called FILTER. Aimed specifically at helping to reduce the amount of Spam that is processed into a system, FILTER takes a query and uses the rules laid out therein to filter incoming mails on the SUBJECT, TO and FROM fields.

Found a bug in the uudecode functions. An attachment that is UUEncoded but had no content caused an infinite loop. This is a snippet from the email that caused the issue.

begin 777 952363185.DOC
`
end

This snippet describes an attachment called 952363185.DOC with Unix permissions of 777 followed directly by the end marker that caused CFX_POP3 to loop infinitely.

Found a bug in the delete function. Where there were large amounts of mails, some mails that were specified were not being deleted.

A NOOP command has been introduced resets the timeout count on the POP server. This should help connection issues when extremely large files are being handled.

When the DEBUG (standard to all CFX tags) attribute is passed, CFX_POP3 now writes out to the browser with some information. Previously, CFX_POP3 didn't write out any debug at all save the execution time. The debug includes lock acquire and release information, file save status and temporary directories used.

08 – Jan – 2003

Introduced a bug when the locking mechanisms were added so that attachments were not saved if GENETRATEUNIQUEFILENAMES was not specified. Also, the locking mechanisms seemed to introduce a memory leak that caused one of our CF Servers to report an 'Eoutofmemory' exception after 24 hours of continuous running (This machine has at the time of writing 197 days uptime on 256 Mb ram). A simple restart of the CF service returned the memory to the system and I have traced and removed the leak in the locking code. No reboot was required. Interestingly enough, the objects that are used for mutex locking have two separate destructors. CFX_POP3 was calling the wrong destructor that led to the object leaving some of its allocated structures in place after the object had been destroyed.

07 – Jan – 2003

CFX_POP3 now contains added functions that remove the requirement for locking from within Cold Fusion. CFX_POP3 now includes a two tier locking system

The first tier lock ensures that there is only one instance of CFX_POP3 accessing any given mailbox at any given time, whilst the second tier lock forces all file operations to be serialized ensuring that GENERATEUNIQUEFILENAMES will never overwrite an attachment written by another instance of CFX_POP3 that is running in parallel.

The overall effect of these additions should be to improve the performance of CFX_POP3 when operating in a high load environment where mailboxes are checked on a user request rather than a back end process. There should be no noticeable performance hit/increase on a low load system.

03 – Jan – 2003

6 days… Quite a while! During extended regression tests, a small bug was found that resulted in the corruption of the HTML part of an email when the mail headers are not explicit about how to handle the mail section. Effectively, two lines of code were in the wrong order so although the HTML attachment was decoded correctly, the HTML body column was storing the non-decoded version.

Seeing as another release was required, the opportunity to revise more of the code to improve performance and improve the quality of the code base even further was taken.

28 – Dec - 2002

Well December has been a busy month for CFX_POP3 with 5 full builds and a ton of extra functionality. Hopefully, this will be the last build for a while…

The UID functionality has been overhauled and improved so that it now works on all operations except LOADFROMFILE. It is worth noting that some POP3 servers do not support the UIDL command and CFX_POP3 will fail gracefully if this is the case.

Using the UID attribute instead of MESSAGENUMBER will introduce a small performance hit as extra communications are required between the client and the POP3 server to ascertain the list of UIDs currently held by the server. The performance hit will be related to the connection type and the number of mails held on the server.

Substantial performance gains have been made in the attribute processing routines and also the internal list population, de-duplication and serialization functions which form a key part of CFX_POP3.

A bug was found in the MessageNumber return logic when a MESSAGENUMBER attribute is passed. The MessageNumber column in the query was reporting the position of the number within the list of values passed by the attribute rather than the server side message number. Depending on the way that the CFX_POP3 tag is used, this bug fix may or may not require a code alteration. If you do not supply a MESSAGENUMBER attribute in any GETALL or GETHEADERONLY queries to the server, you should not need to change any code. It is advised that any code be reviewed with this bug fix in mind before installing this release on production servers.

A new software licence and terms and conditions section has been added to the documentation.

24 – Dec - 2002

Another query field has been added called fullto which includes not only the email address but the senders name where applicable.

 The latest piece of functionality incorporated in this release adds a seriously cool toy to the CF programmers POP3 arsenal. CFX_POP3 now supports dynamic sized queries with the addition of a new attribute called MatchHeaders. Matchheaders allows you to search for the first instance of a

specific header within the headers of an email. The queries will contain extra fields that hold the values returned from the header parse routines.

21 – Dec – 2002

Found a bug in the parsing routines when parsing a mail that has multiple addresses in the To or CC fields causing the dll to return data that was not an email address.

18 – Dec – 2002

Added a new attribute 'EMLPATH'. Allows CFX_POP3 to save out rfc822 compliant messages to the specified path. EmlFilename has been added to the query to indicate the filename given to the .eml file once saved out to disk. These .eml files should be readily accessible from email clients such as Outlook Express.

Under certain circumstances, use of a particular style of coding ithin Cold Fusion after CFX_POP3 has run has been found to stop the CF5 Application Server dead in its tracks. The conditions were rare as it requires the programmer to write Cold Fusion in a particular style. No one has ever reported finding this problem however steps have been taken to stop the circumstances from ever coming into existence. What this means is that if no 'attachmentpath' is specified or the path is invalid, none of the columns relating to attachments will appear in the query that is returned. (See the revised table above.)

A variable CFX_POP3.ExecutionTime has been added to the tag to return the amount of time in milliseconds the tag executed for.

Date formatting information has been added to the documentation.

12 – Dec – 2002

Added a new attribute 'ALWAYSCREATEQUERY'. This should address some users issues when translating from CFPOP to CFX_POP3. By adding this tag and including it in a call to CFX_POP3, CFX_POP3 will create an empty query instead of no query when there is no mail. Also added a 'contenttype' field to all queries to indicate the overall content-type of the mail as prescribed by the headers.

21 – Nov – 2002

Added a new attribute 'DELIMITER' and four new query columns 'deliveredto' (where supported), 'contenttypes', 'contentids' and 'filesizes' giving more information regarding the content of an email. A minor fix to cope with non-standard formatted attachment headers from mail clients like Incredimail. Some people have previously reported list index out of bounds errors, which we were unable to locate and fix. We have since found two places that would cause this error and fixed them in this release. The first was a problem identifying some emails as being UU-Encoded when they categorically were not, the second was when parsing an embedded email attachment that had no subject or filename.

Other things that have been looked at are the email address handling routines, which have been optimised and tweaked plus several source tweaks here and there. If CFX_POP3 encounters an error, it now tries to gracefully disconnect from the mail server whenever this is possible. This means that if you have marked mails for deletion, they should be deleted if an error occurs whereas in the past, they were not. Made the datetimeformat in the code and the docs match…

05 – Aug – 2002

Improved performance of list handling routines, fixed a long-standing bug caused by passing duplicate message-ids to the dll when deleting mails (cause was previously unknown for the 'Not Connected' error reports.). General tweaks to the sockets layer.

23 – Jun – 2002

Now reads in attached rfc822 emails correctly. Also added a LoadFromFile action and FILENAME attribute to load an rfc822 compliant message directly from a local source rather than downloading from a POP server. The ReturnMessageSource switch has been introduced to allow the control over whether or not the message source is returned in the GetAll and LoadFromFile query sets. Smaller query results make for more efficient processing.

Another access violation that seemed to occur after prolonged periods of server up-time has been addressed. General overhaul of code removing several undesirable (but not necessarily faulty) programming practices from some third party freeware components used in the CFX_POP3 implementation. The overhaul provides a 20-30% improvement in performance.

8 – Jun – 2002

The CFX_POP3 tag has undergone a major architectural change. Moving away from memory streams to handle the downloading and parsing of emails to file streams. This has two main benefits. Low memory consumption even for large emails, the second is that the overall reliability of CFX_POP3 across different environments is much more predictable. The performance impact of the changes seems to be negligible. Several obscure access-violation errors that have been reported in the past have been removed.

29 – May – 2002

The CFX_POP3 tag now correctly handles UU-encoded inline attachments and also now contains an HTML field when returning email contents in the query.

14 – Apr – 2002

Bug fix for MIME Quoted-Printable encoded attachments where the attachment contained NULL characters.

10 – Feb – 2002

The CFX_POP3 tag is a re-write of the CFX_POP2 tag to achieve a more robust level of performance under load. CFX_POP2 would refuse to work until a re-boot had been performed when working under load for long periods > 2000 mails a day for 5-10 days. Certain multipart/alternative mails also caused the CFX_POP2 issues. CFX_POP3 uses an enhanced mime decoding algorithm and completely new implementation of the POP3 protocols. The sockets layer has also been replaced with the standard sockets functionality provided in Delphi 6.

Although CFX_POP3 is a complete re-write of CFX_POP2, it was built as an exact replacement and as such no Cold Fusion source code need be modified if you are already running CFX_POP2. Simply point your CFX_POP2 tag entry at the new CFX_POP3 dll then cycle the Cold Fusion Application Service.

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We reserve the right to modify the technical specifications of CFX_POP3 from time to time at our discretion. We may need to update these terms and conditions from time to time because of, for example, a change in the law, obligations imposed on us by third parties or technology evolution or change.

TERMINATION

Termination of this agreement can be carried out at any time by the cessation of use and removal of CFX_POP3 from all your equipment. We reserve the right to cancel this agreement at any time.

INSTALLATION OF CFX_POP3 SIGNIFIES YOUR CONFIRMATION THAT YOU HAVE READ AND ACCEPTED THE TERMS AND CONDITIONS AS SET OUT HEREIN.

http://store.newmediadevelopment.net/cfdevelopment.cfm

CFX_POP3 – Third party software

CFX_POP3 contains software from third parties to achieve particular functionality.

MD5 encryption component provided by David Barton used under licence.
http://www.cityinthesky.co.uk/cryptography.html

Fast String manipulation routines provided by Peter Morris used under licence.
http://www.droopyeyes.com

SQLite is implemented for Bayesian stats persistence.
http://www.sqlite.org

CFX API integration unit for Delphi provided by Leonid Fofanov used under licence.
http://www.mycgiserver.com/~Leonidius/cfxd/cfxd.htm