

Image/tiff-fx MIME Content Subtype and .tfx File Extension Testing

Purpose

The purpose of this test is to validate appropriate media subtype and file extension interpretation for the image/tiff-fx MIME content-subtype [image/tiff-fx] and .tfx file extension so that receiving MUAs (Mail User Agents - a program with which human users send and receive mail) can pick an appropriate agent or mechanism to present the data to the user following transport.

Procedure

A representative set of test files (TEST FILE) from each TIFF-FX [TIFF-FX] profile designated or optionally permitted to use the image/tiff-fx MIME content-subtype and/or .tfx file extension should be:

- a) formatted to be MIME [MIME1, MIME2] conformant by a MIME compliant sending MUA,
- b) identified within the MIME Content-Type and File Extension fields to be image/tiff-fx and .tfx respectively,
- c) transported via SMTP,
- d) interpreted by an appropriately configured MIME compliant receiving MUA which picks an appropriate agent or mechanism based on the image/tiff-fx media subtype to present the data to the user,
- e) interpreted by an appropriately configured MIME compliant or non -MIME compliant receiving MUA which picks an appropriate agent or mechanism based on the .tfx extension to present the data to the user,
- f) presented to the user and validated as representative of the sample file.

The following exchange is recommended:

```
TEST FILE -> sending MUA ->Sending MTA-> - - - SMTP transport
- - - receiving MTA -> receiving MUA -> Presentation agent ->TEST FILE
```

The same set of test files should also be sent in the reverse direction with the pair of senders and receivers swapping roles.

TEST FILE

Given that encodings from TIFF-FX Profiles J, L, C and M, MUST use image/tiff-fx MIME content subtype and/or .tfx file extension while encodings from Profile S and F MAY use image/tiff-fx MIME content subtype and/or .tfx file extension, it is recommend that the sample file set consists of at least two different and representative encodings of each of the following TIFF-FX profiles:

1. TIFF-FX Profile S (MH/G3)
2. TIFF-FX Profile F (MH/G3 and MMR/G4)
3. TIFF-FX Profile J (JBIG)
4. TIFF-FX Profile L (Color JBIG)
5. TIFF-FX Profile C (JPEG)
6. TIFF-FX Profile M (MRC)

Presentation agent

The application designated by the user to be used by the receiving MUA to display or print the content identified by image/tiff-fx MIME content subtype or .tfx file extension.

MUA and MTA considerations

Due to the lack of reliable MIME usage by the Microsoft Outlook MUA, and the filtering of MIME headers by Microsoft Exchange MTA (Mail Transfer Agent or mail server), it is not appropriate to recommend use of Outlook MUA or Exchange MTA in any credible MIME content -type testing. It is noted that once a file type (e.g. WinWord) and file extension (e.g. .doc) has been registered within the Windows or NT operating systems, for viewing/reading by a particular application (e.g. Microsoft Word), Outlook will automatically associate a file with an application, based solely on the file extension, but not the MIME content-type.

MUA

We recommend using one or more of the following MUAs, which are freely available on the Internet and make it easy to set up custom MIME content subtypes, shown below for adding the image/tiff-fx MIME content subtype and .tfx extension:

1. Netscape Mail:

www.netscape.com, current version 6.1

Once configured to connect to an email account, the image/tiff-fx MIME content subtype for TIFF-FX files can be set up by:

- Edit->Preferences->Navigator->Helper Applications
- New Type
- Description: TIFF-FX Image Document (could be anything)
- File extension: tfx
- MIME type: image/tiff-fx
- Application to use: <insert the location of your application>

2. Opera Mail:

www.opera.com

Once configured to connect to an email account, the image/tiff-fx MIME type for TIFF-FX files can be set up by:

- File->Preferences->File types
- New...
- MIME type: image/tiff-fx
- File extensions: tfx
- Open with other application: <insert the location of your application>

Note that with the use of multiple MUAs, it's preferred to keep the mail on the server, so that each MUA doesn't remove it before the other MUA(s) can access it. On Netscape, the setting to "leave on server" is found at Edit->Mail/News Account Settings...->(mail account)->Server Settings->Leave messages on server, and on Opera, the setting is found at File->Properties->E-mail->Incoming->Delete e-mail from server after retrieval (uncheck).

MTA

We recommend use of a mail server other than Microsoft Exchange.

A Unix mail server is preferred, although we've found there are a number of servers available when searching on "email server" on www.cnet.com. Likewise, several other MUAs were found on CNET.com, yet the two listed above were found to have options for setting up MIME content-types; there are undoubtedly others.

Once the mail account on the MTA and MUA have been set up, files may be attached and sent to other mail recipients.

References

[TIFF-FX] –Buckley, R., Venable, D., McIntyre, L., Parsons, G., and J. Rafferty, "File Format for Internet Fax", work in progress, draftietf-fax-tiff-fx-11.txt, November 2001

[image/tiff-fx] – McIntyre, L., Parsons, G. and Rafferty, J., "Tag Image File Format Fax extended (TIFF-FX) - image/tiff-fx MIME Sub-type Registration", work in progress, draft-ietf-fax-tiff-fx-reg-01.txt, November 2001

[MIME1] N. Freed and N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", RFC 2045, Innosoft, First Virtual, Nov 1996.

[MIME2] N. Freed and N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part Two: Format of Internet Message Bodies", RFC 2046, Innosoft, First Virtual, Nov 1996.