

Network Working Group  
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## Suggested Additional MIME Types for Associating Documents

### Status of this Memo

This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

- 1) New MIME Types: Staple and "Paper" Clip
  - 1) indicates the degree of binding of multipart documents:  
stapled documents should stay together on the desktop,  
while paper clipped ones should be easily spreadable
  - 2) big paper clips vs small ones; heirarchical assembly
  - 3) big vs small for large documents vs. small ones?
  - 4) warning! the presence of electronic staples or paper clips  
may break some programs, particularly those designed to do  
high-speed copying!
- 2) patents on the electronic staple and paper clip
  - 1) use First Virtual to record a charge each time new staples  
or paper clips are made.
  - 2) to reduce transmission charges, electronic staples should be  
bought in boxes of 5000. Reference: Apple's "bento"  
technology?
  - 3) electronic staples should have a standard "size and shape"  
so a supply of staples could be used by several  
programs.
- 3) recycling electronic staples and paper clips
  - 1) to assure proper accounting, and to detect patent violations  
(people making their own electronic staples), it may be  
necessary to attach a certificate to each staple or paper  
clip.

- 2) When a file or folder is deleted, a "recycler" program could look inside for staples or paper clips that could be reused or recycled.
  - 1) staples could be recycled for a small credit
  - 2) paper clips could be reused.
- 4) custom-look electronic staples and paper clips
  - 1) when stapled or clipped documents are displayed on the desktop, there should be some icon or visual indicator to show the presence of the (possibly removable) staple or paper clip
  - 2) "color=" and "shape=" attributes in the MIME line should allow senders to customize the appearance of individual staples or paper clips.
    - 1) this could have some significance for office filing systems, for instance: a silver paper clip could trigger one workflow component, while a gold paper clip could trigger another.
  - 3) "src=" would allow the specification of a URL of the image to be shown, for even greater control of appearance.
  - 4) it should be possible to specify 3D modelling of your custom paper clip, for electronic desktops being viewed through virtual reality headsets
- 5) electronic paper clip sculpture
  - 1) instead of discarding or reusing paper clips, it should be possible to "bend" them and display the resulting sculpture on the desktop
    - 1) a morphing interface would be suitable
  - 2) linked chains of paper clips
  - 3) each paper clip should keep track of how many times it has been bent. Above a certain limit, the clip should fail.

- 6) electronic paper clips as page flags
  - 1) in addition to using electronic paper clips to group related documents, it should be possible to attach an electronic paper clip to a single page of a multipage document or collection of documents. This highlights or draws attention to the page.
  - 2) it should be possible to include positioning information with the electronic paper clip, to mark specific paragraphs or sentences
  - 3) combinations of color, shape, size, position, orientation, etc. could have special meaning
- 7) additional safety hazards of electronic paper clips
  - 1) they should not be used on data flines which might end up in the hands of very small children
    - 1) thus, one should consider keeping them in a locked drawer of the electonic desk on home PCs
  - 2) they should not be attached to documents on floppy disks, as they may erase portions of the floppy

#### Security Considerations

Security issues are not discussed in this memo.

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