

4.4.2.4. Commentary keywords

...omissis ...

COMMENT keyword. This keyword *may* be used to supply any comments regarding the *FITS* file.

HISTORY keyword. This keyword *should* be used to describe the history of steps and procedures associated with the processing of the associated data.

Keyword field is blank. This keyword *may* be used to supply any comments regarding the *FITS* file. It is frequently used for aesthetic purposes to provide a break between groups of related keywords in the header.

By convention, a sequence of one or more *completely* blank keyword records (consisting of 80 ASCII space characters) that immediately precede the **END** keyword *may* be interpreted as non-significant fill space that *may* be over written and reused when new keywords are appended to the header. This convention enables an arbitrarily large amount of header space to be preallocated when the *FITS* HDU is first created; this space is then available for future use when new keyword records are written to the header. Preallocating space for the anticipated number of keyword records that will eventually be written can help to mitigate the computationally expensive alternative of having to repeatedly insert a new *FITS* block into the header to make room for 36 more keywords at a time.

It should be noted, however, that if a *FITS* file is processed by software that writes new keywords in the traditional way at the location of the **END** keyword, this will render the preallocated blank keywords no longer available for reuse under this convention. For this reason *it is recommended* that this convention only be used within a controlled processing environment where the software is known to support it.

H.3 List of modifications to the latest FITS standard

The blank header space convention described in Sect. 4.4.2.4 was used since 1996, and registered in 2014. The text of the original convention is reported at <http://fits.gsfc.nasa.gov/registry/headerspace.html>.

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