Required Metadata

Metadata, or data that describe data, are required for documenting essential attributes of the science data products, such as:

- the facilities used to obtain observations,
- the configuration of the instrument used,
- the mapping from pixel to world coordinates, and
- the data provenance: references to the observations used to construct HLSP data products

Within FITS files, metadata are usually expressed as header keywords. They facilitate an automated data quality assessment, and provide structured attributes that enable MAST users to search for and identify data products. In general HLSP providers may include almost any header keyword they deem appropriate for their own use. But in order to be useful for archival users, science data products in HLSP collections must include specific, named keyword records with values and locations that are prescribed in this chapter. HLSP collections would be even more useful if the science headers also include certain recommended keywords to establish a complete understanding of the products.

If your data were obtained with HST or other NASA missions and you did not radically alter the headers (apart from updates to reflect the processing to create your HLSP collection), most of the needed metadata may already be present. Prior to submitting your HLSP collection to MAST, please check that the required metadata are present.

The specific keywords that are required depend upon the science content and organization of the data. The articles in this chapter describe the keywords that are appropriate for most data product types.