

Collection Contents

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Required Files

The contents of an HLSP collection are largely driven by the science outputs of the contributing team, but must include the following:

1. One or more **science files**. If the collection includes observational data, the files should be one of the types described in [File Types, Formats, Content](#) and include metadata within the files as described in [Required Metadata](#).
2. A **README** file (see an [example](#)) that must include:
 - a. contact information for the HLSP contributor
 - b. the contribution date
 - c. if applicable: the version identifier and a description of differences with the prior delivered version of the HLSP collection. We recommend a (lightly) structured format, but ASCII will do.
 - d. bibliographic information for one or more references to papers that describe the collection
3. A brief **project summary** that describes the contributing team's science aims of the collection, coverage (spatial, temporal, etc.), and other information that may help another user understand the collection. This information may be folded into the README file for very small HLSP collections.

Optional Content

An HLSP collection may also include:

- A **manifest** that lists the files in the collection. This may be helpful when delivering large numbers of files, particularly if they are divided into sub-directories.
 1. the location in the directory tree
 2. the file name (see [naming convention](#))
 3. The format should be structured to enable processing with scripts.
- Concomitant pixel data (variance arrays, bad pixel masks, exposure maps, etc.) where appropriate
- If the data originate from a NASA mission, provide a mapping between each HLSP data product and the mission source files from which they were derived. See the article on [Provenance Metadata](#).
- One or more graphics per science data product to be used as a preview; or a sky map for catalogs



MAST staff will generate preview graphics for products such as images, spectra, and light curves using an automated process if not provided by the HLSP contributors. These auto-generated previews may be sub-optimal, however.

Non-Archive Content

Certain kinds of related content will not be archived at MAST. These include publications, project software, and [Jupyter notebooks](#). We expect such content to reside in a public on-line repository such as [GitHub](#). We encourage contributors to also register software products with the Astronomical Source Code Library ([ASCL](#)). Links to these products can certainly be included in the MAST webspace for your HLSP collection.

For Further Reading...

- [File Types, Formats, Content](#)
- [Required Metadata](#)
- [Example README file](#)