

1.4 Standards – data file and variable naming conventions

FPI Time Standard

The time variable in all FPI data products mark the beginning of the data collection interval. Note that for other MMS data products, the time may mark the middle of the data interval. FPI data products after v1.0 include both the time and a "delta +/-" to indicate the time relative to the data interval. That is, for FPI the delta +/- is [10,0] sec for the SITL data product or [0.03, 0] sec for a DES burst product. It is important for users to understand the time conventions of each data product used especially when comparing data sets.

See [FPI Timing Page](#) for detailed information on accuracy and coding suggestions.

File Versions

The version number within each FPI CDF file name is of the format vX.Y.Z. General MMS guidelines are summarized here, with along with notes of how the FPI specifically interprets these guidelines.

- X is the interface number. Increments in this number represent a significant change to the format of the file has been made. E.g. new parameters added, or parameters re-named. Also increments upon significant change in the algorithm of the processing software.
- Y is the quality number. This number represents a change in the quality of the data in the file, which would require re-processing of previously processed data. Y resets to 0 when X increments.
- Z is the revision number. Z is set to 0 the first time a given file is processed, and is incremented each time the file is re-processed for any reason. Z is reset to 0 after X or Y is incremented.

Please see the [Version Release Notes page](#) for the history of FPI file versions.

File Formats

FPI L2 science data is released in Common Data Format (CDF), a conceptual data abstraction for storing, manipulating, and accessing multidimensional data sets (see <https://cdf.gsfc.nasa.gov>). Variables and attributes within FPI CDF files follow standards documented in the MMS CDF File Format Guide, except where noted.
