Field Guide to JWST Data

This chapter will summarize the various types of JWST data products, the relationships between them, and the way that these products are presented in MAST.

In this chapter...

Key Points about JWST Data Products

JWST data products are more complex and elaborate compared with prior-generation mission products hosted by MAST. This is in part due to the highly multiplexed science instruments on JWST (i.e., each has many configurations and operating modes), and to the much greater degree to which contemporaneous exposures are combined to form science products. This chapter summarizes the types of available data and their context, the representation of the products in the MAST Portal, and provides links to the comprehensive and authoritative documentation on JWST data products (JDox) and calibration processing (CAL).

For a potential user of JWST data, there are a few key points to keep in mind.

- Learn the basics of the JWST file naming conventions
  - see Science Data Product Types (this guide)
  - see File Naming Conventions (JDox)
  - see File Naming Schemes (CAL documentation)
- Learn how the various levels and types of data products are related, and presented in the MAST Portal
  - see Data Product Linkages (this guide)
- Learn the semantic data types and their internal organization
  - see Science Products (CAL documentation)
- Learn about anciliary and engineering data, metadata, and how they can be used to evaluate science data quality
  - see Supplemental Products (this guide)
  - see Keyword Metadata (this guide)
  - see Engineering Data (this guide)

For Further Reading...

- JWST File Naming Schemes (CAL documentation)
- JWST Data Structures (JDox)