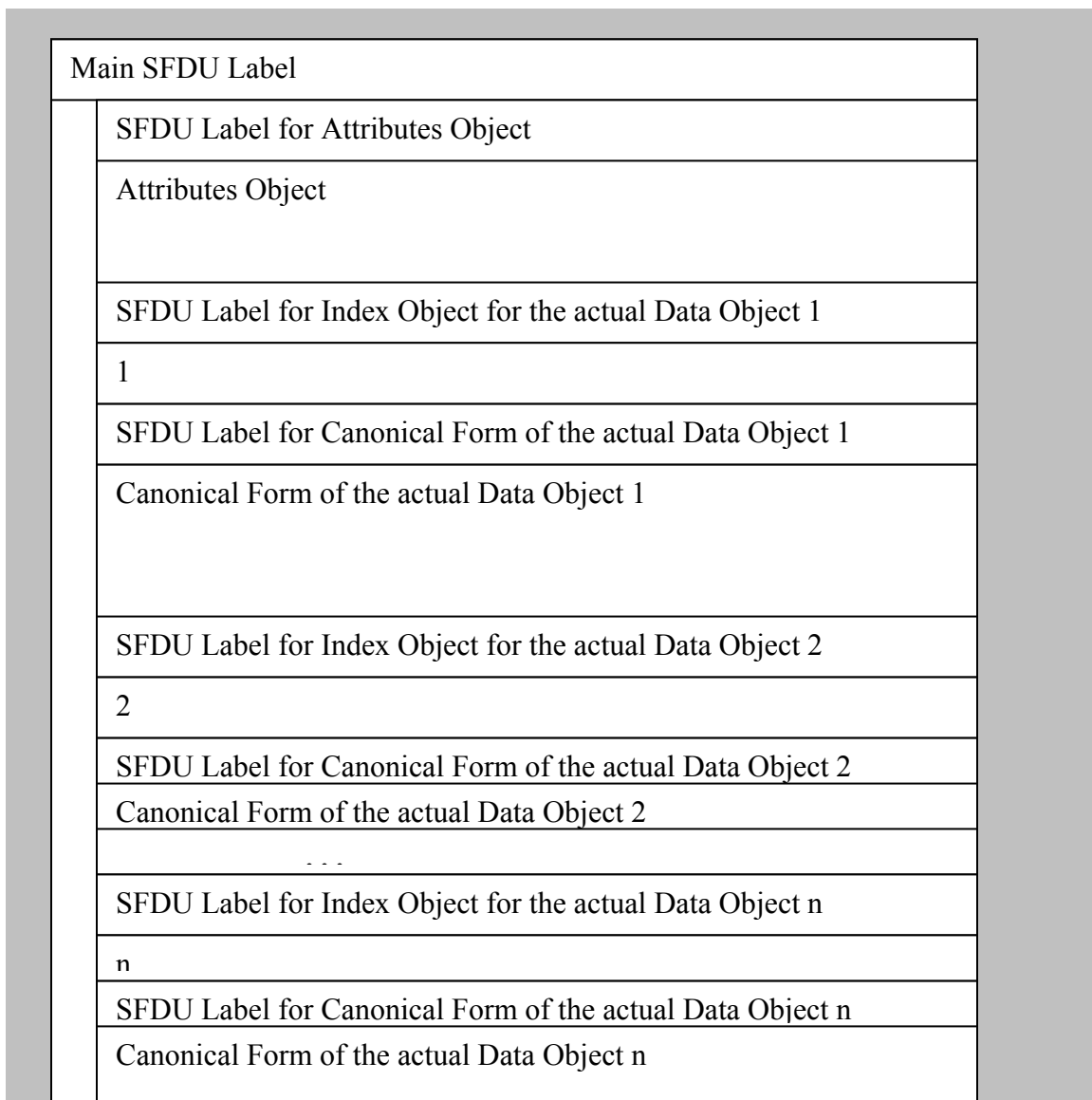


A Brief Overview of an NSSDC Archival Information Package (AIP)

An NSSDC Archival Information Package (AIP) is a binary file that contains the archived file(s) plus attributes providing preservation metadata for the archived file(s). This information is currently packaged together within a Standard Formatted Data Unit (SFDU). SFDU packaging inserts 20 byte labels which delimit the included files. A typical NSSDC AIP (Version 3) is structured as shown in the figure below. Versions 1 and 2 of the NSSDC AIP only allowed a single file. In those versions, the Index Object and the associated SFDU label for the Index Object will not appear.



The following is an example of a typical NSSDC AIP with binary information indicated by *italic text*. This example includes only a single actual data file. If multiple actual data files were included, a STREAM_STRUCTURE Object containing the file information would be included in the attributes object for each actual data file. . Note that the canonical form of a data file is normally the same as the original form, unless there is a need to insert record delimiters (e.g., some VAX/VMS files). A transformation from original to canonical form is always reversible.

CCSD3ZB00001[8 bytes binary data indicating size in bytes of entire AIP]

NSSD3KB00331[8 bytes binary data indicating size in bytes of the NSSDC Attributes Object]

```
BEGIN_OBJECT = NSSDC_ATTRIBUTE_OBJECT;
  OBJECT_TYPE_VERSION = "3";
  BEGIN_OBJECT = PACKAGE_IDENTIFICATION;
    ARCHIVAL_STORAGE_ID = "NSDC0002071390";
    PRIMARY_COLLECTION_ID = "SPMS-00216";
    DATE_TIME_OF_GENERATION = "2004-10-29T11:39:58";
    CRC_TYPE = "NSSDC_A:V0";
    ATTRIBUTE_OBJECT_CRC = "5c85ffe0";
  END_OBJECT = PACKAGE_IDENTIFICATION;
  BEGIN_OBJECT = MULTI-STREAM_STRUCTURE;
    GROUPING_RATIONALE = "Maintain Tape Image";
    GROUPING_CRITERIA = "Directory Content";
    MEDIA_ACCESSION_NUMBER = "DD000289";
    GROUPING_RECOMMENDED_NAME = "SPMS-00216_DD000289_1963-01-01";
    NUMBER_OF_STREAMS = "1";
    NUMBER_OF_BYTES_IN_CANONICAL_STREAMS = "10063482";
    GROUP_DATA_BEGIN_DATE_TIME = "1963-01-01T00:00:00.000";
    GROUP_DATA_END_DATE_TIME = "1963-01-30T00:00:00.000";
    BEGIN_OBJECT = STREAM_STRUCTURE;
      STREAM_INSTANCE_POINTER = "1";
      DIRECTORY_PATHNAME = "./";
    BEGIN_OBJECT = ORIGINAL_STREAM_STRUCTURE;
      MACHINE_REPRESENTATION = "CDC 3000";
      MEDIA_TO_DISK_REPORT = "Copied from tape to disk and passed
validation";
      STREAM_TYPE = "7-BIT ASCII";
      STREAM_TYPE_TO_PACKAGER = "BINARY";
      STREAM_TYPE_FROM_DOC = "binary";
      ORIGINATING_SYSTEM = "VMS: OpenVMS Alpha OS, Version V6.2-
1H3";
      DATE_TIME_CREATED = "2004-10-29T11:05:55.22";
      DATE_TIME_LAST_MODIFIED = "2004-10-29T11:06:01.99";
      FILE_ORGANIZATION = "sequential";
      RECORD_FORMAT = "variable";
      RECORD_CONTROL = "none";
      STREAM_SIZE_BYTES = "10042560";
      MAXIMUM_RECORD_LENGTH_BYTES = "0";
      FILE_NAME = "DD000289_F0001.DAT";
      CRC_TYPE = "NSSDC_A:V0";
      CRC = "5eb653d0";
```

```
END_OBJECT = ORIGINAL_STREAM_STRUCTURE;
BEGIN_OBJECT = CANONICAL_STREAM_STRUCTURE;
  STREAM_TYPE = "BINARY";
  STREAM_RECORD_DELIMITER = "2-BYTE HEADER";
  STREAM_SIZE_BYTES = "10063482";
  MAXIMUM_RECORD_LENGTH_BYTES = "962";
  CRC_TYPE = "NSSDC_A:V0";
  CRC = "474fc5e2";
  RECOMMENDED_FILE_NAME = "DD000289_F0001.DAT";
  PROCESSING_REPORT = "FsGET_FN-P_VNA PASS: found no carriage
control with variable ASCII records, AIPGEN-W_BA WARN: expected BINARY,
but found only ASCII";
  FORMAT_IDENTIFIER = "NSSD1001";
  ORDERED_APPLIED_ENCODINGS = "none";
  ID_OF_ENCODED_FORMAT = "NSSD1001";
END_OBJECT = CANONICAL_STREAM_STRUCTURE;
BEGIN_OBJECT = SUPPORTING_ATTRIBUTES;
  DATA_BEGIN_DATE_TIME = "N/A";
  DATA_END_DATE_TIME = "N/A";
END_OBJECT = SUPPORTING_ATTRIBUTES;
END_OBJECT = STREAM_STRUCTURE;
END_OBJECT = MULTI-STREAM_STRUCTURE;
END_OBJECT = NSSDC_ATTRIBUTE_OBJECT;
```

*NSSD3IB00455[8 bytes binary data indicating size in bytes of
the Index Object for the actual Data File]*

1

*NSSD3IB01001[8 bytes binary data indicating size in bytes of
the Canonical Form of the actual Data File]*

[Canonical Form of the actual Data File]