

Section 3

HDF Definition List

3.1 Definition List Overview

This section of the Reference Manual contains a listing of all definitions used with HDF routines. The definitions are categorized by their name prefix (the portion of the name before the underscore) into tables. The tables themselves are alphabetized by this definition name prefix.

This section is primarily intended to be of use to Fortran programmers whose compilers do not support include files, and need to know the values of the definitions so that they can be explicitly defined in their programs.

TABLE 3A

Maximum Limit Codes

| Definition Name | Definition Value |
|------------------|------------------|
| FULL_INTERLACE | 0 |
| NO_INTERLACE | 1 |
| DF_MAXFNLEN | 256 |
| FIELDNAMELENMAX | 128 |
| VSFIELDMAX | 256 |
| VSNAMELENMAX | 64 |
| VGNAMELENMAX | 64 |
| MAXNVELT | 64 |
| VDEFAULTBLKSIZE | 4096 |
| VDEFAULTNBLKS | 32 |
| MAX_ORDER | 65535 |
| MAX_FIELD_SIZE | 65535 |
| MAX_FILE | 32 |
| MAX_PATH_LEN | 1024 |
| VDATA_BUFFER_MAX | 1000000 |
| DFS_MAXLEN | 255 |
| DFSD_MAXFILL_LEN | 16 |
| COMP_MAX_COMP | 12 |

| | |
|---------------|------|
| MAX_GROUPS | 8 |
| FUNC_NAME_LEN | 32 |
| MAX_NC_OPEN | 32 |
| MAX_NC_DIMS | 5000 |
| MAX_NC_ATTRS | 3000 |
| MAX_NC_VARS | 5000 |
| MAX_NC_NAME | 256 |
| MAX_VAR_DIMS | 32 |
| MAX_GR_NAME | 256 |

TABLE 3B

***_INTERLACE - Interlacing Mode Codes**

| Definition Name | Definition Value |
|-----------------|------------------|
| FULL_INTERLACE | 0 |
| NO_INTERLACE | 1 |

TABLE 3C

***_WILDCARD - Wildcard Code**

| Definition Name | Definition Value |
|-----------------|------------------|
| DFREF_WILDCARD | 0 |

TABLE 3D

AN_* - Multifile Annotation Codes

| Definition Name | Definition Value |
|-----------------|------------------|
| AN_DATA_LABEL | 0 |
| AN_DATA_DESC | 1 |
| AN_FILE_LABEL | 2 |
| AN_FILE_DESC | 3 |

TABLE 3E

COMP_CODE_* - Compression Codes

| Definition Name | Definition Value |
|-------------------|------------------|
| COMP_CODE_NONE | 0 |
| COMP_CODE_RLE | 1 |
| COMP_CODE_NBIT | 2 |
| COMP_CODE_SKPHUFF | 3 |

| | |
|--------------------------|---|
| COMP_CODE_DEFLATE | 4 |
| COMP_CODE_INVALID | 5 |

TABLE 3F

DF_* - Maximum Length Codes

| Definition Name | Definition Value |
|--------------------|------------------|
| DF_MAXFNLEN | 256 |

TABLE 3G

DFACC_* - File Access Codes

| Definition Name | Definition Value |
|-----------------------|------------------|
| DFACC_READ | 1 |
| DFACC_WRITE | 2 |
| DFACC_CREATE | 4 |
| DFACC_ALL | 7 |
| DFACC_RDONLY | 1 |
| DFACC_RDWR | 3 |
| DFACC_CLOBBER | 4 |
| DFACC_DEFAULT | 0 |
| DFACC_SERIAL | 1 |
| DFACC_PARALLEL | 9 |

TABLE 3H

DFNT_* - Machine Word Representation and Data Type Codes

| Definition Name | Definition Value |
|---------------------|------------------|
| DFNT_HDF | 0 |
| DFNT_NATIVE | 4096 |
| DFNT_CUSTOM | 8192 |
| DFNT_LITEND | 16384 |
| DFNT_NONE | 0 |
| DFNT_QUERY | 0 |
| DFNT_VERSION | 1 |
| DFNT_FLOAT32 | 5 |
| DFNT_FLOAT | 5 |
| DFNT_FLOAT64 | 6 |
| DFNT_DOUBLE | 6 |

| | |
|-----------------------|------|
| DFNT_FLOAT128 | 7 |
| DFNT_INT8 | 20 |
| DFNT_UINT8 | 21 |
| DFNT_INT16 | 22 |
| DFNT_UINT16 | 23 |
| DFNT_INT32 | 24 |
| DFNT_UINT32 | 25 |
| DFNT_INT64 | 26 |
| DFNT_UINT64 | 27 |
| DFNT_INT128 | 28 |
| DFNT_UINT128 | 29 |
| DFNT_UCHAR8 | 3 |
| DFNT_UCHAR | 3 |
| DFNT_CHAR8 | 4 |
| DFNT_CHAR | 4 |
| DFNT_CHAR16 | 42 |
| DFNT_UCHAR16 | 43 |
| DFNT_NFLOAT32 | 4101 |
| DFNT_NFLOAT | 4101 |
| DFNT_NFLOAT64 | 4102 |
| DFNT_NDOUBLE | 4102 |
| DFNT_NFLOAT128 | 4103 |
| DFNT_NINT8 | 4116 |
| DFNT_NUINT8 | 4117 |
| DFNT_NINT16 | 4118 |
| DFNT_NUINT16 | 4119 |
| DFNT_NINT32 | 4120 |
| DFNT_NUINT32 | 4121 |
| DFNT_NINT64 | 4122 |
| DFNT_NUINT64 | 4123 |
| DFNT_NINT128 | 4124 |
| DFNT_NUINT128 | 4125 |
| DFNT_NUCHAR8 | 4099 |
| DFNT_NUCHAR | 4099 |
| DFNT_NCHAR8 | 4100 |
| DFNT_NCHAR | 4100 |
| DFNT_NCHAR16 | 4138 |
| DFNT_NUCHAR16 | 4139 |

| | |
|-----------------------|-------|
| DFNT_LFLOAT32 | 16389 |
| DFNT_LFLOAT | 16389 |
| DFNT_LFLOAT64 | 16390 |
| DFNT_LDOUBLE | 16390 |
| DFNT_LFLOAT128 | 16391 |
| DFNT_LINT8 | 16404 |
| DFNT_LUINT8 | 16405 |
| DFNT_LINT16 | 16406 |
| DFNT_LUINT16 | 16407 |
| DFNT_LINT32 | 16408 |
| DFNT_LUINT32 | 16409 |
| DFNT_LINT64 | 16410 |
| DFNT_LUINT64 | 16411 |
| DFNT_LINT128 | 16412 |
| DFNT_LUINT128 | 16413 |
| DFNT_LUCHAR8 | 16387 |
| DFNT_LUCHAR | 16387 |
| DFNT_LCHAR8 | 16388 |
| DFNT_LCHAR | 16388 |
| DFNT_LCHAR16 | 16426 |
| DFNT_LUCHAR16 | 16427 |

TABLE 3I

DFNTF_* - Floating-point Format Codes

| Definition Name | Definition Value |
|-------------------------|------------------|
| DFNTF_NONE | 0 |
| DFNTF_HDFDEFAULT | 1 |
| DFNTF_IEEE | 1 |
| DFNTF_VAX | 2 |
| DFNTF_CRAY | 3 |
| DFNTF_PC | 4 |
| DFNTF_CONVEX | 5 |
| DFNTF_VP | 6 |

TABLE 3J

DFTAG_* - Object Tag Codes

| Definition Name | Definition Value |
|-----------------|------------------|
| | |

| | |
|--------------------|-----|
| DFTAG_WILDCARD | 0 |
| DFTAG_NULL | 1 |
| DFTAG_LINKED | 20 |
| DFTAG_VERSION | 30 |
| DFTAG_COMPRESSED | 40 |
| DFTAG_VLINKED | 50 |
| DFTAG_VLINKED_DATA | 51 |
| DFTAG_CHUNKED | 60 |
| DFTAG_CHUNK | 61 |
| DFTAG_FID | 100 |
| DFTAG_FD | 101 |
| DFTAG_TID | 102 |
| DFTAG_TD | 103 |
| DFTAG_DIL | 104 |
| DFTAG_DIA | 105 |
| DFTAG_NT | 106 |
| DFTAG_MT | 107 |
| DFTAG_ID8 | 200 |
| DFTAG_IP8 | 201 |
| DFTAG_RI8 | 202 |
| DFTAG_CI8 | 203 |
| DFTAG_HI8 | 204 |
| DFTAG_ID | 300 |
| DFTAG_LUT | 301 |
| DFTAG_RI | 302 |
| DFTAG_CI | 303 |
| DFTAG_RIG | 306 |
| DFTAG_LD | 307 |
| DFTAG_MD | 308 |
| DFTAG_MA | 309 |
| DFTAG_CCN | 310 |
| DFTAG_CFM | 311 |
| DFTAG_AR | 312 |
| DFTAG_DRAW | 400 |
| DFTAG_RUN | 401 |
| DFTAG_XYP | 500 |
| DFTAG_MTO | 501 |
| DFTAG_T14 | 602 |

| | |
|-----------------|------|
| DFTAG_T105 | 603 |
| DFTAG_SDG | 700 |
| DFTAG_SDD | 701 |
| DFTAG_SD | 702 |
| DFTAG_SDS | 703 |
| DFTAG SDL | 704 |
| DFTAG_SDU | 705 |
| DFTAG_SDF | 706 |
| DFTAG_SDM | 707 |
| DFTAG_SDC | 708 |
| DFTAG_SDT | 709 |
| DFTAG_SDLNK | 710 |
| DFTAG_NDG | 720 |
| DFTAG_CAL | 731 |
| DFTAG_FV | 732 |
| DFTAG_BREQ | 799 |
| DFTAG_EREQ | 780 |
| DFTAG_SDRAG | 781 |
| DFTAG_VG | 1965 |
| DFTAG_VH | 1962 |
| DFTAG_VS | 1963 |
| DFTAG_RLE | 11 |
| DFTAG_IMC | 12 |
| DFTAG_IMCOMP | 12 |
| DFTAG_JPEG | 13 |
| DFTAG_GREYJPEG | 14 |
| DFTAG_JPEG5 | 15 |
| DFTAG_GREYJPEG5 | 16 |

TABLE 3K

HDF_* - Vdata Interface, Linked-block Element and Vset Packing Mode Codes

| Definition Name | Definition Value |
|--------------------------|------------------|
| HDF_VDATA | -1 |
| HDF_VSPACK | 0 |
| HDF_VSUNPACK | 1 |
| HDF_ENTIRE_VDATA | -1 |
| HDF_APPENDABLE_BLOCK_LEN | 4096 |
| HDF_APPENDABLE_BLOCK_NUM | 16 |

| | |
|--------------|---|
| HDF_VSPACK | 0 |
| HDF_VSUNPACK | 1 |

TABLE 3L

MFGR_* - Interlacing Mode Codes

| Definition Name | Definition Value |
|--------------------------|------------------|
| MFGR_INTERLACE_PIXEL | 0 |
| MFGR_INTERLACE_LINE | 1 |
| MFGR_INTERLACE_COMPONENT | 2 |

TABLE 3M

SD_* - Scientific Data Set Configuration Codes

| Definition Name | Definition Value |
|---------------------|------------------|
| SD_UNLIMITED | 0 |
| SD_DIMVAL_BW_COMP | 1 |
| SD_DIMVAL_BW_INCOMP | 0 |
| SD_FILL | 0 |
| SD_NOFILL | 256 |
| SD_RAGGED | -1 |

TABLE 3N

SPECIAL_* - Special Element Identifier Codes

| Definition Name | Definition Value |
|-----------------|------------------|
| SPECIAL_LINKED | 1 |
| SPECIAL_EXT | 2 |
| SPECIAL_COMP | 3 |
| SPECIAL_VLINKED | 4 |
| SPECIAL_CHUNKED | 5 |

TABLE 3O

SUCCEED/FAIL - Routine Return Status Codes

| Definition Name | Definition Value |
|-----------------|------------------|
| SUCCEED | 0 |
| FAIL | -1 |

