Glossary

A

annotation: a label or description specifically added to an HDF file to identify or describe a file or any data element(s) contained therein.

annotation interface: collection of routines identified by the prefix DFAN (C) or da (FORTRAN) that are used to annotate HDF files and data objects.

annotation model: a predefined data structure used to attach text strings to any HDF file or data element.

application interface: a collection of functions for reading, writing, and organizing the data objects associated with one data model.

attribute record: an HDF data object containing a description of the environment from which a file (global attribute) or data set (local attribute) was created, the contents of an attribute record are sometimes referred to as meta data**.**

D

da: the FORTRAN prefix for functions in the single file annotation interface.

data model: a predefined data structure comprised of a group of related HDF data elements.

description: an annotation containing one or more text strings.

desc: abbreviation used in the DFAN interface to identify a description assigned to a data object.

d8: the FORTRAN prefix for functions in the single file 8-bit raster interface.

DF interface: an obsolete collection of low level HDF routines that were replaced by the H routines in version 3.2 of the HDF library.

DF24: the C prefix for functions in the single file 24-bit raster interface.

DFAN: the C prefix for functions in the single file annotation interface.

DFP: the C prefix for functions in the single file palette interface.

DFR8: the C prefix for functions in the single file 8-bit raster interface.

DFSD: the C prefix for functions in the single file scientific data interface.

dp: the FORTRAN prefix for functions in the single file palette interface.

ds: the FORTRAN prefix for functions in the single file scientific data interface.

d2: the FORTRAN prefix for functions in the single file 24-bit raster interface.

E

8-bit raster image: a bit-mapped image whose rows are painted from left to right using pixels represented by a single 8-bit number.

8-bit raster image set: a group of data elements containing an 8-bit raster image, its dimension record and an optional palette.

8-bit raster interface: collection of routines identified by the prefix DFR8 (C) or d8 (FORTRAN) that are used to manage 8-bit raster image sets.

8-bit raster model: a predefined data structure used by HDF to store an 8-bit raster image, its dimension record, and a palette in the same file.

F

fid: abbreviation used in the DFAN interface to identify a file label.

fds: abbreviation used in the DFAN interface to identify a file description.

G

global attribute: an annotation assigned to describe an entire HDF file.

H

H: the C prefix for low level routines in the HDF library.

H interface: a collection of low level HDF routines used for handling file I/O, memory management, and physical storage in HDF files.

High-level Vdata/Vgroup interface: a collection of HDF routines identified by the prefix VH that are used to create simple Vdatas and Vgroups.

HDF: the C prefix for low level multi-file routines in the HDF library.

HDF interface: a collection of low level HDF routines used to support the multi-file application interfaces.

HE: the C prefix for low level error reporting routines in the HDF library.

HE interface: a collection of low level routines used to manage the HDF error stack.

I

interlacing: a method of ordering the 8-bit raster values comprising a 24-bit image; see pixel interlacing, scan-line interlacing, or scan-plane interlacing.

L

label: an annotation containing one text string terminated by `'\0'`.

lab: abbreviation used in the DFAN interface to identify a label.

local attribute: an annotation assigned to a specific data object in a file; may be selected from a predefined set of attributes or user defined.

low level interface: a collection of HDF function calls that perform basic file I/O, error handling, and memory management.

M

meta data: data typically stored in an attribute record that describes the data in an HDF file or data object.

multi-file interface: one of several independent modules containing HDF routines designed to store and access more than one HDF file or data object at the same time.

N

netCDF: an interface developed by the Unidata Program Center for storing multi-dimensional arrays along with their attribute records.

P

palette data: a 768-byte array of 8-bit numbers used to identify which 256 colors appear in an 8-bit raster image; also called a color look-up table.

palette interface: collection of HDF routines identified by the prefix DFP (C) or dp (FORTRAN) that are used to manage 8-bit raster image sets.

palette model: a predefined data structure used by HDF to store palettes.

pixel interlacing: an interlacing scheme whereby the three color components for each pixel in a 24-bit image are grouped together and stored adjacent to one another in a file.

R

reference number: a number assigned to every element in order to distinguish it from other data elements of the same type.

S

scan-line interlacing: an interlacing scheme whereby the color components for each line in a 24-bit image are grouped together and stored adjacent to one another in a file.

scan-plane interlacing: an interlacing scheme whereby the color components for each color plane in a 24-bit image are grouped together and stored adjacent to one another in a file.

scientific data model: a predefined data structure used by HDF to store a multi-dimensional array, its dimension record, and its attributes in the same file.

scientific data set: a group of data elements containing an array of scientific data, its dimension record, and other optional attribute records.

scientific data set interface: a collection of single file or multi-file HDF routines that are used to manage multi-dimensional arrays of varying number type.

SD: the C prefix for functions in the multi-file scientific data interface.

sf: the FORTRAN prefix for functions in the multi-file scientific interface.

single file application interface: one of several independent modules containing HDF routines designed to store and access a specific type of data set one file at a time.

T

tag: one of a set of predefined numbers used to define the type of data stored in a data element.

24-bit raster image: any bit-mapped image whose rows are painted from left to right top to bottom using pixel values represented by three 8-bit numbers.

24-bit raster image set: a group of data elements containing a 24-bit raster image and its dimension record.

24-bit raster interface: collection of HDF routines identified by the prefix DF24 (C) or d2 (FORTRAN) that are used to manage 24-bit raster image sets.

24-bit raster model: a predefined data structure used by HDf to store a 24-bit raster image and its dimension record in the same file.

U

utilities: small application programs executed through a command line interface.

V

V: the C prefix for functions in the multi-file Vgroup interface.

Vdata class: a label used to describe the type of records stored in a table**.**

Vdata field interface: a collection of HDF routines identified by the prefix VF (C only) that are used to inquire about the names, size, and number types for the fields in a Vdata.

V (cont.)

Vdata field name: a name assigned to a field in a Vdata record.

Vdata interface: a collection of HDF routines identified by the prefix VS (C) or vsf (FORTRAN) that are used to manage customized tables in HDF files.

Vdata model: a framework for storing customized tables in HDF files.

Vdata name: a label used to identify or describe a Vdata table.

Vdata Query interface: a collection of HDF routines identified by the prefix VQS (C only) that are used to inquire about the contents of a Vdata.

Vdata record: a collection of fields whose number types may differ from one another.

VF: the C prefix for functions in the multi-file Vdata field interface.

VF interface: a collection of HDF routines identified by the prefix VF that are used to query Vdata about their field sizes, types, and field names.

vf: the FORTRAN prefix for functions in the multi-file Vgroup interface.

Vgroup class: a label typically used to describe the members of a data set**.**

Vgroup interface: a collection of HDF routines identified by the prefix V(C) or vf (FORTRAN) that are used to read and write customized data sets.

Vgroup model: a framework for storing customized data sets in an HDf file.

Vgroup name: a label used to identify or describe a Vgroup.

VH: the C prefix for functions in the high level Vdata/ Vgroup interface.

VS: the C prefix for functions in the multi-file Vdata interface.

vsf: the FORTRAN prefix for functions in the multi-file Vdata interface.

VSQ: the C prefix for functions in the multi-file Vdata query interface.

VSQ interface: a collection of HDF routines identified by the prefix VSQ that are used to query Vdata about their records, names, and number types.