

NAME

afQuery, afQueryLong, afQueryDouble, afQueryPointer – query the capabilities of the Audio File Library

SYNOPSIS

```
#include <audiofile.h>
```

```
AUpvlist afQuery (int querytype, int arg1, int arg2, int arg3, int arg4);
```

```
long afQueryLong (int querytype, int arg1, int arg2, int arg3, int arg4);
```

```
double afQueryDouble (int querytype, int arg1, int arg2, int arg3,
    int arg4);
```

```
void *afQueryPointer (int querytype, int arg1, int arg2, int arg3,
    int arg4);
```

PARAMETERS

querytype can be one of the following:

-
- AF_QUERYTYPE_FILEFMT
-
- AF_QUERYTYPE_INST
-
- AF_QUERYTYPE_INSTPARAM
-
- AF_QUERYTYPE_COMPRESSION
-
- AF_QUERYTYPE_COMPRESSIONPARAM
-
- AF_QUERYTYPE_MISC
-
- AF_QUERYTYPE_MARK
-
- AF_QUERYTYPE_LOOP

arg1, *arg2*, *arg3*, and *arg4* are integer selectors whose meaning depends upon *querytype*.

RETURN VALUE

Upon success, afQuery will return a non-null AUpvlist value. Upon failure, afQuery will return null while afQueryLong and afQueryDouble will return -1 and afQueryPointer will return null.

Pointers representing character strings are owned by the Audio File Library and must not be freed; all other pointer values must be freed by the caller.

DESCRIPTION

For AF_QUERYTYPE_FILEFMT, the following selectors are valid values for *arg1*:

AF_QUERY_LABEL

Request a short label string for the format (e.g., "aiff").

AF_QUERY_NAME

Request a short name for the format (e.g., "MS RIFF WAVE").

AF_QUERY_DESC

Request a descriptive name for the format (e.g., "Audio Interchange File Format").

AF_QUERY_IMPLEMENTED

Request a boolean value indicating whether the format is implemented for reading and writing in the Audio File Library.

AF_QUERY_ID_COUNT

Request the total number of formats implemented.

AF_QUERY_IDS

Request an integer array of the id token values of all implemented file formats.

AF_QUERY_COMPRESSION_TYPES

Used with the selector AF_QUERY_VALUE_COUNT in *arg2*, this will return a long integer containing the number of compression schemes available for use within the format specified in *arg3*.
Used with selector AF_QUERY_VALUES, it returns a pointer to an integer array containing the compression id values of the compression schemes supported by the format specified in *arg3*.

AF_QUERY_SAMPLE_FORMATS

Used with the selector AF_QUERY_DEFAULT in *arg2*, this will return the default sample format for the file format specified in *arg3*.

AF_QUERY_SAMPLE_SIZES

Used with selector AF_QUERY_DEFAULT in *arg2*, this will return the default sample width for the file format specified in *arg3*.

For AF_QUERYTYPE_INST, the following selectors are valid for *arg1*:

AF_QUERY_SUPPORTED

Request a boolean value indicating whether the file format in *arg2* supports instruments.

AF_QUERY_MAX_NUMBER

Request an integer value indicating the maximum number of instruments supported by the file format in *arg2*.

For AF_QUERYTYPE_INSTPARAM, the following selectors are valid for *arg1*:

AF_QUERY_SUPPORTED

Request a boolean value indicating whether the file format in *arg2* supports instrument parameters.

AF_QUERY_ID_COUNT

Request an integer value indicating the number of instrument parameters supported by the file format in *arg2*.

AF_QUERY_IDS

Request an integer array containing the instrument parameter values for the file format in *arg2*.

AF_QUERY_TYPE

For the file format in *arg2*, request the type of the instrument parameter in *arg3*.

AF_QUERY_NAME

For the file format in *arg2*, request the name of the instrument parameter in *arg3*.

AF_QUERY_DEFAULT

For the file format in *arg2*, request the default value of the instrument parameter in *arg3*.

ERRORS

afQuery can produce the following errors:

AF_BAD_QUERYTYPE

The query type is unsupported.

AF_BAD_QUERY

The arguments to the query are bad.

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