Contents

- matvar_t Mat_VarReadInfo

MAT_C_UINT16 Matlab unsigned 16-bit integer class.

MAT_C_INT32 Matlab signed 32-bit integer class.

MAT_C_UINT32 Matlab unsigned 32-bit integer class.

MAT_C_INT64 Matlab unsigned 32-bit integer class.

MAT_C_UINT64 Matlab unsigned 32-bit integer class.

MAT_C_FUNCTION Matlab unsigned 32-bit integer class.

1.1.2.3 anonymous enum

Matlab array flags

Enumeration values:

MAT_F_COMPLEX

1.1.3.2 int Mat_CalcSubscripts C05int_CalcSubscripts ,int

1.1.3.5

EXAMPLE: To create a cell array of size 3x2:

```
int rank=2, dims[2] = {3,2};
matvar_t **vars;

vars = malloc(3*2*sizeof(matvar_t *));
vars[0]             = Mat_VarCreate(...);
   :
vars[5] = Mat_VarCreate(...);
```

Parameters:

name Name of the variable to create

class_type class type of the variable in Matlab(one of the mx Classes)

data_type data type of the variable (one of the MAT_T_ Types)

rank Rank of the variable

dims array of dimensions of the variable of size rank

data pointer to the data

opt 0, or bitwise or of the following options:

1.1.3.15 int Mat_VarGetNumberOfFields (matvar_t *matvar)

Returns the number of fields in the given structure. MAT file version must be 5.

Parameters:
matvar Structure matlab variable

Returns:
Number of fields, or a negative number on error

1.1.3.16 size_t Mat_VarGetSize (matvar_t *matvar)

Parameters:
matvar matlab variable

Returns:
size of the variable in bytes

1.1.3.17 matvar_t Mat_VarGetStructField (matvar_t *matvar*, void *name_or_index*, int *opt*, int *index*)

1.1.3.26 matvar_t Mat_VarReadNext (mat_t *mat*)

1.1.3.30 int Mat_VarWriteInfo (mat_t *mat*,

Chapter 2

LIBMATIO API Data Structure Documentation

2.1 mat_t Struct Reference

Matlab MAT File information.

Data Fields

- long bof
- int byteswap
- char filename
- FILE fp
- char header
- int mode
- char subsys_offset
- int version

2.1.1 Detailed Description

Contains information about a Matlab MAT file

2.1.2 Field Documentation

2.2 matvar_t Struct Reference

Matlab variable information.

Data Fields

- int class_type
- int compression

2.2.2.6 long matvar_t::datapos

matvar_t::imos

matvar_t:fps

2.3 sparse_t Struct Reference

sparse data information

Data Fields

- void data
- int ir

int

2.3.2.7 int sparse_t::nzmax

Maximum number of non-zero elements

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