«interface» IRecordFile

```
+ *getMetadataPtr() : IMetadata
+ setMetadata(*pMetadataPtr : IMetadata)
+ *getRecordListPtr() : dataStructure::DLL
+ setRecordListPtr(*pListPtr : dataStructure::DLL)
+ insertRecordPtr(*pRecordPtr : IRecord)
+ *deleteRecordPtr(*pRecordPtr : IRecord) : IRecord
+ *searchRecordPtr(*pRecordPtr : IRecord) : IRecord
+ showFragmentation() : unsigned short
+ defragFile() : bool
```

«interface» IMetadata

```
+ *getRecordStructPtr() : dataStructure::DLL
+ getFileName() : string
+ setFileName(&pFileName : string)
+ getFileSize() : unsigned short
+ setFileSize(&pFileSize : unsigned short)
+ getBlockSize() : unsigned short
+ setBlockSize(&pSize : unsigned short)
+ getOwner() : string
+ setOwner(&pOwner : string)
+ *getFreeBlockListPtr() : dataStructure::DLL
+ setFreeBlockList(*pListPtr : dataStructure::DLL)
+ *getBlockUsedListPtr() : dataStructure::DLL
+ setBlockUsedList(*pListPtr : dataStructure::DLL)
+ *getEOFPtr() : unsigned short
+ setEOFPtr(*pEOFPtr : unsigned short)
```

«interface» IRecord

```
+ *getDataListPtr() : dataStructure::DLL
+ setDataList(*pListPtr : dataStructure::DLL)
+ *getRecordStructPtr() : dataStructure::DLL
+ setRecordStruct(*pListPtr : dataStructure::DLL)
```

BTRecordFile

```
- _metadata : BTRecordFileMetadata
- _recordList : dataStructure::DLL
```

-_metadata

BTRecordFileMetadata

```
- _metadataList : dataStructure::DLL
- _recordStruct : dataStructure::DLL
```

BTRecord

```
+ STRING : char = 0
+ CHAR : char = 1
+ SHORT : char = 2
+ INT : char = 3
+ DOUBLE : char = 4
+ BOOL : char = 5
- _parentPtr : fileHandling::IRecordDataType
- _leftChildPtr : fileHandling::IRecordDataType
- _rightChildPtr : fileHandling::IRecordDataType
- _dataListPtr : dataStructure::DLL
- _recordStructPtr : dataStructure::DLL
```

-_leftChildPtr

-_parentPtr

DATATYPE

RecordDataType

```
- _name : char
- _data : DATATYPE
- _size : unsigned short
+ getDataPtr() : DATATYPE
+ setData(*pDataPtr : fileHandling::RecordDataType::DATATYPE)
```

«interface» IRecordDataType

```
+ getSize() : unsigned short
+ getName() : string
+ setName(pName : string)
+ printDataInfo()
```

Representa
un disk group

«interface»
raid::IRaid

+ write() : bool
+ read()
+ erase()
+ modify()
+ stripe()

raid::Disk
- _id : char
- _size : unsigned short
- _blockSize : unsigned short
- _currentBlockPtr : unsigned short

raid::Raid1
- mirroring()

raid::Raid0

raid::ARaid
- diskGroup : dataStructure::DLL
- blockSize : unsigned short

raid::Raid5
+ computeParity()

NODETYPE

dataStructure::DLL
- _headPtr : DLLNode
- _tailPtr : DLLNode
- _size : unsigned short
+ insertAtFront(pData : NODETYPE)
+ insertAtBack(pData : NODETYPE)
+ insertInOrderND(pData : NODETYPE)
+ insertInOrderD(pData : NODETYPE)
+ removeFromFront() : DLLNode
+ removeFromBack() : DLLNode
+ searchInOrder(pData : NODETYPE) : DLLNode
+ searchNotInOrder(pData : NODETYPE) : DLLNode
+ isEmpty() : bool
+ getSize() : int
+ getHeadPtr() : DLLNode
- getNewNode(pData : NODETYPE) : DLLNode

NODETYPE   -_headPtr

dataStructure::DLLNode
- _data : NODETYPE
- _prevPtr : undef
- _nextPtr : DLLNode
+ getData()
+ getPrevPtr()
+ getNextPtr() : DLLNode
+ setPrevPtr(pPrevPtr : DLLNode) : DLLNode
+ setNextPtr(pNextPtr : DLLNode)

-_nextPtr

-_dirListPtr

-_parentPtr

DATATYPE

«interface»
IN_aryNode
+ getData() : DATATYPE
+ setData(pData : DATATYPE)
+ getParentPtr() : IN_aryNode
+ setParentPtr(pParentPtr : IN_aryTree)
+ getChildList() : DLL
+ setChildList(pData : DLL)
+ addChildPtr(pChildPtr : IN_aryNode) : bool
+ deleteChildPtr(pChildPtr : IN_aryNode) : IN_aryNode
+ searchChildPtr(pChildPtr : IN_aryNode) : IN_aryNode

DATATYPE

N_aryRecordFileNode
- _data : DATATYPE
- _parentPtr : N_aryRecordFileNode
- _dirListPtr : DLL
- _fileListPtr : DLL
+ getRecordFileListPtr() : fileHandling::IRecordFile
+ setRecordFileListPtr(pRecordFileListPtr : fileHandling::IRecordFile)
+ addRecordFilePtr(pRecordFilePtr : fileHandling::IRecordFile) : bool
+ deleteRecordFilePtr(pRecordFilePtr : fileHandling::IRecordFile) : fileHandling::IRecordFile
+ searchRecordFilePtr(pRecordFilePtr : fileHandling::IRecordFile) : fileHandling::IRecordFile

-_root

«interface»
IN_aryTree
+ getRoot() : IN_aryNode
+ setRoot(pRoot : IN_aryNode)
+ insertNodePtr(pNodePtr : IN_aryNode)
+ deleteNodePtr(pNodePtr : IN_aryNode) : IN_aryNode
+ searchNodePtr(pNodePtr : IN_aryNode) : IN_aryNode

N_aryRecordFileTree
- _root : N_aryRecordFileNode

Disk

- _id : char
- _size : unsigned short
- _blockSize : unsigned short
- _currentBlockPtr : unsigned short