

# Package ‘aidar’

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**Title** Tools for reading AIDA (<http://aida.freehep.org/>) files into R

**Description** Read objects from the AIDA file and make them available as dataframes in R

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**License** LGPL (>= 2)

**Suggests** testthat

**Depends** XML

**NeedsCompilation** no

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getAnnotation	<i>retrieves the annotation of a given AIDA object by it's name from the given file</i>
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**Description**

retrieves the annotation of a given AIDA object by it's name from the given file

**Usage**

```
getAnnotation(fileName, objectName)
```

**Arguments**

fileName	name of the AIDA file
objectName	name of the AIDA object for which the annotation is to be found

**Examples**

```
histoFile = system.file("extdata", "histos.xml.gz", package="aidar")  
ann = getAnnotation(histoFile, '21')
```

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getCloud1D	<i>retrieves a given 1D cloud by it's name from the given file and returns it as a data.frame</i>
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**Description**

retrieves a given 1D cloud by it's name from the given file and returns it as a data.frame

**Usage**

```
getCloud1D(fileName, cloudName)
```

**Arguments**

fileName	name of the AIDA file
cloudName	name of the AIDA 1D cloud to be returned

**Examples**

```
histoFile = system.file("extdata", "clouds.xml.gz", package="aidar")  
c1d = getCloud1D(histoFile, '21')
```

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getCloud2D	<i>retrieves a given 2D cloud by it's name from the given file and returns it as a data.frame</i>
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**Description**

retrieves a given 2D cloud by it's name from the given file and returns it as a data.frame

**Usage**

```
getCloud2D(fileName, cloudName)
```

**Arguments**

fileName	name of the AIDA file
cloudName	name of the AIDA 2D cloud to be returned

**Examples**

```
histoFile = system.file("extdata", "clouds.xml.gz", package="aidar")  
c2d = getCloud2D(histoFile, '30')
```

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getCloud3D	<i>retrieves a given 3D cloud by it's name from the given file and returns it as a data.frame</i>
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**Description**

retrieves a given 3D cloud by it's name from the given file and returns it as a data.frame

**Usage**

```
getCloud3D(fileName, cloudName)
```

**Arguments**

fileName	name of the AIDA file
cloudName	name of the AIDA 3D cloud to be returned

**Examples**

```
histoFile = system.file("extdata", "clouds.xml.gz", package="aidar")  
c3d = getCloud3D(histoFile, '33')
```

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getFileInfo	<i>lists the content of a given AIDA file.</i>
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### Description

This function lists the context of a given AIDA file. The AIDA file should have been written out in "uncompressed" format which subsequently can be gzip compressed.

### Usage

```
getFileInfo(fileName)
```

### Arguments

fileName	name of the AIDA file
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### Examples

```
histoFile = system.file("extdata", "histos.xml.gz", package="aidar")  
info = getFileInfo(histoFile)
```

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getHisto1D	<i>retrieves a given 1D histogram by it's name from the given file and returns it as a data.frame</i>
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### Description

retrieves a given 1D histogram by it's name from the given file and returns it as a data.frame

### Usage

```
getHisto1D(fileName, histoName)
```

### Arguments

fileName	name of the AIDA file
histoName	name of the AIDA 1D histogram to be returned as a data.frame

### Examples

```
histoFile = system.file("extdata", "histos.xml.gz", package="aidar")  
h1 = getHisto1D(histoFile, '1')
```

---

getHisto2D	<i>retrieves a given 2D histogram by it's name from the given file and returns it as a data.frame</i>
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**Description**

retrieves a given 2D histogram by it's name from the given file and returns it as a data.frame

**Usage**

```
getHisto2D(fileName, histoName)
```

**Arguments**

fileName	name of the AIDA file
histoName	name of the AIDA 2D histogram to be returned as a data.frame

**Examples**

```
histoFile = system.file("extdata", "histos.xml.gz", package="aidar")  
h2 = getHisto2D(histoFile, '10')
```

---

getHisto3D	<i>retrieves a given 3D histogram by it's name from the given file and returns it as a data.frame</i>
------------	---

---

**Description**

retrieves a given 3D histogram by it's name from the given file and returns it as a data.frame

**Usage**

```
getHisto3D(fileName, histoName)
```

**Arguments**

fileName	name of the AIDA file
histoName	name of the AIDA 3D histogram to be returned as a data.frame

**Examples**

```
histoFile = system.file("extdata", "histos.xml.gz", package="aidar")  
h3 = getHisto3D(histoFile, '13')
```

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getProfile1D	<i>retrieves a given 1D profile histogram by it's name from the given file and returns it as a data.frame</i>
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**Description**

retrieves a given 1D profile histogram by it's name from the given file and returns it as a data.frame

**Usage**

```
getProfile1D(fileName, histoName)
```

**Arguments**

fileName	name of the AIDA file
histoName	name of the AIDA 1D profile histogram to be returned

**Examples**

```
histoFile = system.file("extdata", "histos.xml.gz", package="aidar")  
p1d = getProfile1D(histoFile, 'Example profile (gauss)')
```

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getProfile2D	<i>retrieves a given 2D profile histogram by it's name from the given file and returns it as a data.frame</i>
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**Description**

retrieves a given 2D profile histogram by it's name from the given file and returns it as a data.frame

**Usage**

```
getProfile2D(fileName, histoName)
```

**Arguments**

fileName	name of the AIDA file
histoName	name of the AIDA 2D profile histogram to be returned

**Examples**

```
histoFile = system.file("extdata", "histos.xml.gz", package="aidar")  
p2d = getProfile2D(histoFile, 'Example 2D profile (gauss)')
```

---

getTuple	<i>retrieves a given tuple by it's name from the given file and returns it as a data.frame</i>
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**Description**

retrieves a given tuple by it's name from the given file and returns it as a data.frame

**Usage**

```
getTuple(fileName, tupName)
```

**Arguments**

fileName	name of the AIDA file
tupName	name of the AIDA tuple to be returned

**Examples**

```
tupleFile = system.file("extdata", "tuple.xml.gz", package="aidar")  
t100 = getTuple(tupleFile, '100')
```

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