

# Package: aidar (via r-universe)

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**Title** Tools for Reading AIDA Files

**Description** Read objects from the AIDA (<<http://aida.freehep.org/>> file and make them available as dataframes in R.

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**License** LGPL (>= 2)

**Suggests** testthat

**Imports** XML

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**Repository** CRAN

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## Contents

|                         |   |
|-------------------------|---|
| getAnnotation . . . . . | 2 |
| getCloud1D . . . . .    | 2 |
| getCloud2D . . . . .    | 3 |
| getCloud3D . . . . .    | 3 |
| getFileInfo . . . . .   | 4 |
| getHisto1D . . . . .    | 4 |
| getHisto2D . . . . .    | 5 |
| getHisto3D . . . . .    | 5 |
| getProfile1D . . . . .  | 6 |
| getProfile2D . . . . .  | 6 |
| getTuple . . . . .      | 7 |

|              |          |
|--------------|----------|
| <b>Index</b> | <b>8</b> |
|--------------|----------|

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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> |
|------------|---|

---

**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 |
|----------|-----------------------|

### 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> |
|------------|---|

---

### 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> |
|------------|---|

---

**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')
```

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|            |   |
|------------|---|
| 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> |
|--------------|---|

---

**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> |
|----------|--|

---

**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')
```

# Index

- \* **aida**
  - getAnnotation, 2
  - getCloud1D, 2
  - getCloud2D, 3
  - getCloud3D, 3
  - getFileInfo, 4
  - getHisto1D, 4
  - getHisto2D, 5
  - getHisto3D, 5
  - getProfile1D, 6
  - getProfile2D, 6
  - getTuple, 7
- \* **annotation**
  - getAnnotation, 2
- \* **cloud**
  - getCloud1D, 2
  - getCloud2D, 3
  - getCloud3D, 3
- \* **file**
  - getFileInfo, 4
- \* **histogram**
  - getHisto1D, 4
  - getHisto2D, 5
  - getHisto3D, 5
  - getProfile1D, 6
  - getProfile2D, 6
- \* **profile**
  - getProfile1D, 6
  - getProfile2D, 6
- \* **tuple**
  - getTuple, 7

getAnnotation, 2  
getCloud1D, 2  
getCloud2D, 3  
getCloud3D, 3  
getFileInfo, 4  
getHisto1D, 4  
getHisto2D, 5  
getHisto3D, 5  
getProfile1D, 6  
getProfile2D, 6  
getTuple, 7