Package ‘RISmed’

June 6, 2017

Version 2.1.7
Type Package
Title Download Content from NCBI Databases
Date 2017-6-5
Depends R (>= 2.8.0), methods
Description A set of tools to extract bibliographic content from the National Center for Biotechnology Information (NCBI) databases, including PubMed. The name RISmed is a portmanteau of RIS (for Research Information Systems, a common tag format for bibliographic data) and PubMed.
License GPL (>= 2)
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RISmed-package

Description

Download content from NCBI databases. This package is intended to facilitate analyses of NCBI database content. This package is not intended for reference management.

Details

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Note on usage:
In order not to overload the E-utility servers, NCBI recommends that users post no more than three URL requests per second and limit large jobs to either weekends or between 9:00 PM and 5:00 AM Eastern time during weekdays. Failure to comply with this policy may result in an IP address being blocked from accessing NCBI.

Author(s)
Maintainer: Stephanie Kovalchik <s.a.kovalchik@gmail.com>

AbstractText

Extracts AbstractText from Medline object.

Description
Extractor for the AbstractText of a Medline object.

Usage
AbstractText(object)

Arguments
object instance of class Medline

Value
vector

See Also
Medline

Examples
data(myloma)
AbstractText(myloma)

AbstractText-methods

Methods
signature(object = "Medline")
Description

Extractor for the Acronym of a Medline object.

Usage

Acronym(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
Acronym(myeloma)
Affiliation

Extracts Affiliation from Medline object.

Description

Extractor for the Affiliation of a Medline object.

Usage

Affiliation(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myloma)
Affiliation(myloma)

Description

~~ Methods for Function Affiliation in Package RISmed ~~

Methods

signature(object = "Medline")
Agency

Extracts agency from Medline object.

Description

Extractor for the Agency of a Medline object.

Usage

Agency(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
Agency(myeloma)

Methods

signature(object = "Medline")
ArticleId

Extracts ArticleId from Medline object.

Description
Extractor for the ArticleId of a Medline object.

Usage

ArticleId(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
ArticleId(myeloma)

Methods

signature(object = "Medline")
**ArticleTitle**

*Extracts ArticleTitle from Medline object.*

---

**Description**

Extractor for the ArticleTitle of a Medline object.

**Usage**

`ArticleTitle(object)`

**Arguments**

- `object` instance of class `Medline`

**Value**

vector

**See Also**

`Medline`

**Examples**

```r
data(myloma)
ArticleTitle(myloma)
```

---

**Methods**

`signature(object = "Medline")`
**Author**

| Author | Extracts Author from Medline object. |

**Description**

Extractor for the Author of a Medline object.

**Usage**

Author(object)

**Arguments**

- **object** instance of class Medline

**Value**

List by Pubmed article. Each list contains a data frame with LastName, ForeName, Initials, and order of article authors.

**See Also**

Medline

**Examples**

```r
data(myloma)
Author(myloma)
```

---

**Author-methods**

~~ Methods for Function Author in Package RISmed ~~

**Description**

~~ Methods for function Author in package RISmed ~~

**Methods**

signature(object = "Medline") List by Pubmed article. Each list contains a data frame with LastName, ForeName, Initials, and order of article authors.
c,Medline-method  

*Concatenate Medline*

description

Concatenates multiple Medline objects

Usage

```r
## S4 method for signature 'Medline'
c(x, ...)
```

Arguments

- `x`: a Medline object
- `...`: Additional Medline objects to concatenate

Value

A Medline object

---

Cited  

*Number of citations*

description

Retrieves the number of citations in PubMed Central for the articles contained in the EUtilsSummary or Medline object.

Usage

```r
Cited(object)
```

Arguments

- `object`: instance of class Medline or EUtilsSummary

Value

- vector

See Also

`Medline, EUtilsSummary`
Examples

```r
res <- EUutilsSummary("myeloma[ti]", mindate = "2002/01/01", maxdate = "2002/02/01", retmax = 5)
Cited(res)
```

## Methods

### Description

```
~~ Methods for Function Cited in Package RISmed ~~
```

### Methods

```
signature(object = "Medline")
```

## CollectiveName

### Description

```
Extracts CollectiveName from Medline object.
```

### Usage

```
CollectiveName(object)
```

### Arguments

```
object instance of class Medline
```

### Value

```
vector
```

### See Also

```
Medline
```
CollectiveName-methods

~~ Methods for Function CollectiveName in Package RISmed ~~

Description

~~ Methods for function CollectiveName in package RISmed ~~

Methods

signature(object = "Medline")

CopyrightInformation

Extracts CopyrightInformation from Medline object.

Description

Extractor for the CopyrightInformation of a Medline object.

Usage

CopyrightInformation(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
CopyrightInformation(myeloma)
CopyrightInformation-methods

Description

~~ Methods for function CopyrightInformation in package RISmed ~~

Methods

signature(object = "Medline")

Country

Extracts Country from Medline object.

Description

Extractor for the Country of a Medline object.

Usage

Country(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
Country(myeloma)
DayAccepted

Description

Extractor for the DayAccepted of a Medline object. This date corresponds to the date the article was accepted.

Usage

DayAccepted(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myeloma)
DayAccepted(myeloma)
Methods

signature(object = "Medline")

Description

Extractor for the DayEpublish of a Medline object. This date corresponds to the date the article was published online.

Usage

DayEpublish(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myeloma)
DayEpublish(myeloma)
Methods

signature(object = "Medline")

Description

Extractor for the DayPmc of a Medline object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

DayPmc(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myeloma)
DayPmc(myeloma)
Description
~~ Methods for function DayPmc in package RISmed ~~

Methods
signature(object = "Medline")

DayPmc

Extracts DayPmc from Medline object.

Description
Extractor for the DayPmc of a Medline object. This date corresponds to the date the article was published in print.

Usage
DayPmc(object)

Arguments
object instance of class Medline

Value
vector

References

See Also
Medline

Examples
data(myeloma)
DayPmc(myeloma)
Description

~~ Methods for function DayPpublish in package RISmed ~~

Methods

signature(object = "Medline")

DayPubmed

Extracts DayPubmed from Medline object.

Description

Extractor for the DayPubmed of a Medline object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

DayPubmed(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myeloma)
DayPubmed(myeloma)
Methods for Function `daypubmed` in Package `RISmed`

**Description**

Extractor for the `dayreceived` of a `medline` object. This date corresponds to the date the article was received.

**Usage**

```r
DayReceived(object)
```

**Arguments**

- `object` instance of class `Medline`

**Value**

vector

**References**


**See Also**

`Medline`

**Examples**

```r
data(myeloma)
DayReceived(myeloma)
```
DayReceived-methods  ~~ Methods for Function DayReceived in Package RISmed ~~

Description

~~ Methods for function DayReceived in package RISmed ~~

Methods

signature(object = "Medline")

ELocationID  Extracts ELocationID from Medline object.

Description

Extractor for the ELocationID of a Medline object.

Usage

ELocationID(object)

Arguments

  object instance of class Medline

Value

  vector

See Also

  Medline

Examples

data(myloma)
ELocationID(myloma)
Methods for Function elocationID in Package RISmed

Description

Download results of a query for any database of the National Center for Biotechnology Information (NCBI).

Usage

EUtilsGet(x, type="efetch", db="pubmed")

Arguments

x Either vector of NCBI records ids, i.e. returned ids from EUtilsSummary, or the EUtilsSummary object itself

type string indicating type of NCBI Eutility, efetch, esummary, etc.

db string indicating the NCBI database used in query

Details

Possible E-utilities to supply to type are efetch, esummary, and elink.

The database name supplied to db can be any valid Entrez database, such as pubmed, protein, nlm, etc.

For further details on available E-utilities and databases visit http://www.ncbi.nlm.nih.gov/books/NBK25499/.

Note on usage:

In order not to overload the E-utility servers, NCBI recommends that users post no more than three URL requests per second and limit large jobs to either weekends or between 9:00 PM and 5:00 AM Eastern time during weekdays. Failure to comply with this policy may result in an IP address being blocked from accessing NCBI.
Value

For queries to PubMed, a list by article, with named vectors for each field of the article result. For all other database, a vector with each element name the field returned from XML output.

Author(s)

Stephanie Kovalchik <s.a.kovalchik@gmail.com>

References

Summary help:
http://www.ncbi.nlm.nih.gov/books/NBK3827/
MEDLINE/PubMed Field Descriptions

See Also

EUtilsSummary

Examples

# PUBMED QUERY FOR MYELOMA ARTICLES FOR LAST YEAR
res <- EUtilsSummary("myeloma[ti]", retmax=2, reldate=365)

summary(res)

fetch <- EUtilsGet(res)

# PUBMED RETURNS A MEDLINE OBJECT
fetch

PMID(fetch)

Author(fetch)[[1]]

---

EUtilsQuery Construct URL to make NCBI EUtils query

Description

Construct a URL query for any database of the National Center for Biotechnology Information (NCBI).

Usage

EUtilsQuery(query, type="esearch", db="pubmed",...)
**EUtilsQuery**

**Arguments**

- **query**
  - string query as given in NCBI search box
- **type**
  - string indicating type of NCBI Eutility
- **db**
  - string indicating the NCBI database used in query
- **...**
  - additional limits added to query

**Details**

Possible E-utilities to supply to type are `einfo`, `esearch`, `epost`, `esummary`, `elink`, `egquery`, `espell`.

The database name supplied to db can be any valid Entrez database, such as `pubmed`, `protein`, `nlm`, etc.


Limits that can be supplied to ... to refine the query include:

- **reldate**
  - Limits search results to be within the specified number of days from current date.
- **mindate**
  - Minimum of date range for search results (examples: 2002; 2002/01/01); must be supplied with maxdate.
- **maxdate**
  - Maximum of date range for search results; must be supplied with mindate.
- **datetype**
  - Which date field to use in setting date limits. Possible choices are `edat`, Entrez date, which is the date article was added to Entrez, or `ppdt`, the article publication date. Default is `edat`.
- **retstart**
  - Where in the sequence of returned results to begin retrieving, default is 0.
- **retmax**
  - Maximum number of records to retrieve, default is 1000.

**Value**

String URL to access NCBI E-utility.

**Author(s)**

Stephanie Kovalchik <s.a.kovalchik@gmail.com>

**References**

Query help:


MEDLINE/PubMed Field Descriptions


**Examples**

```r
# PUBMED QUERY
EUtilsQuery("myeloma[ti] jones[au]")

# RESTRICT TO RECORDS WITHIN LAST 30 days
EUtilsQuery("myeloma[ti] jones[au]", reldat=30)
```
EUUtilsSummary  Get summary of NCBI EUUtils query

Description
Get summary information on the results of a query for any database of the National Center for Biotechnology Information (NCBI).

Usage
EUUtilsSummary(query, type="esearch", db="pubmed", url=NULL, encoding="unknown", ...)

Arguments
- query: string query as given in NCBI search box
- type: string indicating type of NCBI Eutility
- db: string indicating the NCBI database used in query
- url: string of url to bypass query construction
- encoding: encoding to be assumed for input strings, see readLines
- ...: additional limits added to query

Details
Possible E-utilities to supply to type are einfo, esearch, epost, esummary, elink, egquery, espell.

The database name supplied to db can be any valid Entrez database, such as pubmed, protein, nlm, etc.

For further details on available E-utilities and databases visit http://www.ncbi.nlm.nih.gov/books/NBK25499/.

Limits that can be supplied to ... to refine the query include:
- reldate: Limits search results to be within the specified number of days from current date.
- mindate: Minimum of date range for search results (examples: 2002; 2002/01/01); must be supplied with maxdate.
- maxdate: Maximum of date range for search results; must be supplied with mindate.
- datetype: Which date field to use in setting date limits. Possible choices are edat, Entrez date, which is the date article was added to Entrez, or ppdt, the article publication date. Default is edat.
- retstart: Where in the sequence of returned results to begin retrieving, default is 0.
- retmax: Maximum number of records to retrieve, default is 1000.

Value
Returns an EUUtilsSummary object.
Author(s)
Stephanie Kovalchik <s.a.kovalchik@gmail.com>

References
Summary help:
http://www.ncbi.nlm.nih.gov/books/NBK3827/
MEDLINE/PubMed Field Descriptions

See Also
EUtilsQuery

Examples

# PUBMED QUERY
res <- EUtilsSummary("myeloma[ti] jones[au]", retmax = 10)

res

summary(res)
QueryCount(res)
QueryId(res)
QueryTranslation(res)

# PROTEIN QUERY
res <- EUtilsSummary("C-reactive[ti]", db="protein", retmax = 10)
summary(res)

Description
Summary of query of an NCBI E-utility

Objects from the Class
Objects can be created by calls of the form new("EUtilsSummary", ...).
Slots

db: Name of database
count: total ids
retmax: limit on number of records to return
retstart: numeric indicating where return records start
PMID: character vector of matching ids
querytranslation: character of NCBI translation of query

Methods

QueryCount signature(object = "EUtilsSummary"): ...
QueryId signature(object = "EUtilsSummary"): ...
print signature(x = "EUtilsSummary"): ...
show signature(object = "EUtilsSummary"): ...
summary signature(object = "EUtilsSummary"): ...
QueryTranslation signature(object = "EUtilsSummary"): ...

Author(s)

Stephanie Kovalchik

---

GrantID

Extracts GrantID from Medline object.

Description

Extractor for the GrantID of a Medline object.

Usage

GrantID(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline
Examples

```r
data(myeloma)
GrantID(myeloma)
```

---

### Methods

Methods for function `GrantID` in package **RISmed**

#### Description

Extractor for the `HourAccepted` of a Medline object. This date corresponds to the date the article was accepted.

#### Usage

```r
HourAccepted(object)
```

#### Arguments

- `object`: instance of class `Medline`

#### Value

vector

#### References


#### See Also

**Medline**

#### Examples

```r
data(myeloma)
HourAccepted(myeloma)
```
Description

Extractor for the `HourEpublish` of a Medline object. This date corresponds to the date the article was published online.

Usage

```r
HourEpublish(object)
```

Arguments

- `object` instance of class Medline

Value

vector

References


See Also

- Medline

Examples

```r
data(myeloma)
HourEpublish(myeloma)
```
Description

~~ Methods for function `hourepublish` in package `RISmed` ~~

Methods

signature(object = "Medline")

HourPmc  Extracts `HourPmc` from `Medline` object.

Description

Extractor for the `HourPmc` of a `Medline` object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

`HourPmc(object)`

Arguments

object instance of class `Medline`

Value

vector

References


See Also

`Medline`

Examples

data(myeloma)
HourPmc(myeloma)
Description

~~ Methods for function HourPmc in package RISmed ~~

Methods

signature(object = "Medline")

Description

Extracts HourPpublish from Medline object.

Usage

HourPpublish(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myloma)
HourPpublish(myloma)
**HourPpublish-methods**

---

**Methods for Function `hourPpublish` in Package `RISmed`**

---

**Description**

~~ Methods for function `hourPpublish` in package `RISmed` ~~

**Methods**

```r
signature(object = "Medline")
```

---

**Description**

Extractor for the `HourPubmed` of a `Medline` object. This date corresponds to the date the article was made available through Pubmed Central.

**Usage**

```r
HourPubmed(object)
```

**Arguments**

```r
object  instance of class Medline
```

**Value**

```r
vector
```

**References**


**See Also**

`Medline`

**Examples**

```r
data(myeloma)
HourPubmed(myeloma)
```
**Description**

Extractor for the `HourReceived` of a Medline object. This date corresponds to the date the article was received.

**Usage**

```r
HourReceived(object)
```

**Arguments**

- `object` instance of class `Medline`

**Value**

vector

**References**


**See Also**

`Medline`

**Examples**

```r
data(myeloma)
HourReceived(myeloma)
```
ISOAbbreviation

Extracts ISOAbbreviation from Medline object.

Description

Extractor for the ISOAbbreviation of a Medline object.

Usage

ISOAbbreviation(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myaloma)
ISOAbbreviation(myaloma)
Methods for function `isoabbreviation` in package `RISmed`

**Description**

Extractor for the `issn` of a `medline` object.

**Usage**

`ISSN(object)`

**Arguments**

- `object` : instance of class `Medline`

**Value**

`vector`

**See Also**

`Medline`

**Examples**

```r
data(myeloma)
ISSN(myeloma)
```
ISSN-methods

Description

~~ Methods for function ISSN in package RISmed ~~

Methods

signature(object = "Medline")

ISSNLinking

Extracts ISSNLinking from Medline object.

Description

Extractor for the ISSNLinking of a Medline object.

Usage

ISSNLinking(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
ISSNLinking(myeloma)
ISSNLinking-methods  ~ Methods for Function ISSNLinking in Package RISmed ~

Description

~ Methods for function ISSNLinking in package RISmed ~

Methods

signature(object = "Medline")

Issue

Extracts Issue from Medline object.

Description

Extractor for the Issue of a Medline object.

Usage

Issue(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
Issue(myeloma)
Description

ExTRACTS LANGUAGE FROM MEDLINE OBJECT.

Usage

Language(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
Language(myeloma)
Description

Class for Medline citation of query to PubMed.

Objects from the Class

Objects can be created by calls of the form `new("Medline", ...).

Slots

Unless stated otherwise, each of the components is a vector of the given field where each element corresponds to a PubMed article.

Query:
PMID:
YearAccepted:
MonthAccepted:
DayAccepted:
HourAccepted:
MinuteAccepted:
YearReceived:
MonthReceived:
DayReceived:
HourReceived:
MinuteReceived:
YearEpublish:
MonthEpublish:
DayEpublish:
Author: list of data frames giving LastName, ForeName, Initials, and order of authors by PubMed article.

ISSN:
Title:
ArticleTitle:
ELocationID:
AbstractText:
Affiliation:
Language:
PublicationType:
MedlineTA:
NlmUniqueID:
ISSNLinking:
PublicationStatus:
ArticleId:
Volume:
Issue:
ISOAbbreviation:
MedlinePgn:
CopyrightInformation:
Country:
GrantID:
Acronym:
Agency:
RegistryNumber:
RefSource:
CollectiveName:

Mesh: list of data frames giving Heading and Type of MeSH term or NA if no terms are in MEDLINE record

Methods
In addition to print and show methods, each slot of the Medline class has a corresponding extractor of the same name.

print signature(x = "Medline", ...): ...
show signature(object = "Medline"): ...
c signature(x = "Medline", ...): ...
Query signature(object = "Medline"): ...
PMID signature(object = "Medline"): ...
YearAccepted signature(object = "Medline"): ...
MonthAccepted signature(object = "Medline"): ...
DayAccepted signature(object = "Medline"): ...
HourAccepted signature(object = "Medline"): ...
MinuteAccepted signature(object = "Medline"): ...
YearReceived signature(object = "Medline"): ...
MonthReceived signature(object = "Medline"): ...
DayReceived signature(object = "Medline"): ...
HourReceived signature(object = "Medline"): ...
MinuteReceived signature(object = "Medline"): ...
YearEpublish signature(object = "Medline"): ...
MonthEpublish signature(object = "Medline"): ...
DayEpublish signature(object = "Medline"): ...
HourEpublish signature(object = "Medline"): ...
MinuteEpublish signature(object = "Medline"): ...
YearPpublish signature(object = "Medline"): ...
MonthPpublish signature(object = "Medline"): ...
DayPpublish signature(object = "Medline"): ...
HourPpublish signature(object = "Medline"): ...
Author(s)

Stephanie Kovalchik
MedlinePgn

Extracts MedlinePgn from Medline object.

Description
Extractor for the MedlinePgn of a Medline object.

Usage
MedlinePgn(object)

Arguments
object instance of class Medline

Value
vector

See Also
Medline

Examples
data(myloma)
MedlinePgn(myloma)

---

Methods

signature(object = "Medline")
**Description**

Extractor for the MedlineTA of a Medline object.

**Usage**

MedlineTA(object)

**Arguments**

- object: instance of class Medline

**Value**

vector

**See Also**

Medline

**Examples**

data(myloma)
MedlineTA(myloma)

---

**Description**

~~ Methods for Function MedlineTA in Package RISmed ~~

**Methods**

signature(object = "Medline")
Mesh

Extracts Mesh headings from Medline object.

Description

Extractor for the Mesh headings of a Medline object.

Usage

Mesh(object)

Arguments

object instance of class Medline

Details


Value

List by Pubmed article. Each list contains a data frame with Heading and Type. The Heading is a MeSH Term and Type is either a Descriptor or a Qualifier of a Descriptor term. Qualifiers of a Descriptor immediately follow the Descriptor term in the data frame. When MeSH headings have not been included with a MEDLINE record, the list will contain NAs (see details).

See Also

Medline

Examples

res <- EUtilsWithSummary("myeloma[MeSh]", retmax=2, reldate=365)
summary(res)
fetch <- EUtilsWithGet(res)

Mesh(fetch)
Description

Methods for function mesh in package RISmed

Methods

signature(object = "Medline") List by Pubmed article. Each list contains a data frame with Heading and Type. The Heading is a MeSH Term and Type is either a Descriptor or a Qualifier of a Descriptor term.

MinuteAccepted

Extracts MinuteAccepted from Medline object.

Description

Extractor for the MinuteAccepted of a Medline object. This date corresponds to the date the article was accepted.

Usage

MinuteAccepted(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myeloma)
MinuteAccepted(myeloma)
MinuteEpublish

Description

Extractor for the MinuteEpublish of a Medline object. This date corresponds to the date the article was published online.

Usage

MinuteEpublish(object)

Arguments

  object instance of class Medline

Value

  vector

References


See Also

  Medline

Examples

  data(myloma)
  MinuteEpublish(myloma)
Description

Extractor for the \texttt{MinutePmc} of a \texttt{Medline} object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

\begin{verbatim}
MinutePmc(object)
\end{verbatim}

Arguments

\begin{verbatim}
object instance of class \texttt{Medline}
\end{verbatim}

Value

vector

References

\url{http://www.nlm.nih.gov/bsd/mms/medlineelements.html#phst}

See Also

\begin{verbatim}
Medline
\end{verbatim}

Examples

\begin{verbatim}
data(myeloma)
MinutePmc(myeloma)
\end{verbatim}
Description

Extractor for the `MinutePpublish` of a `Medline` object. This date corresponds to the date the article was published in print.

Usage

```r
MinutePpublish(object)
```

Arguments

- `object` instance of class `Medline`

Value

vector

References


See Also

- `Medline`

Examples

```r
data(mymoma)
MinutePpublish(mymoma)
```
Description

Extractor for the MinutePubmed of a Medline object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

MinutePubmed(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myloma)
MinutePubmed(myloma)
Description

Extractor for the `MinuteReceived` of a Medline object. This date corresponds to the date the article was received.

Usage

```r
MinuteReceived(object)
```

Arguments

- `object` instance of class Medline

Value

vector

References


See Also

- Medline

Examples

```r
data(myloma)
MinuteReceived(myloma)
```
Description

Extractor for the MonthAccepted of a Medline object. This date corresponds to the date the article was accepted.

Usage

MonthAccepted(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myloma)
MonthAccepted(myloma)
Description

Extractor for the MonthEpublish of a Medline object. This date corresponds to the date the article was published online.

Usage

MonthEpublish(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myloma)
MonthEpublish(myloma)
Description

~ Methods for function `MonthEPublish` in package `RISmed` ~

Methods

`signature(object = "Medline")`

Description

Extractor for the `MonthPmc` of a `Medline` object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

`MonthPmc(object)`

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>object</td>
<td>instance of class <code>Medline</code></td>
</tr>
</tbody>
</table>

Value

vector

References


See Also

`Medline`

Examples

data(myeloma)

`MonthPmc(myeloma)`
Methods

signature(object = "Medline")

Description

Extracts MonthPpublish from Medline object.

Usage

MonthPpublish(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myloma)
MonthPpublish(myloma)
Description

Extractor for the MonthPubmed of a Medline object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

MonthPubmed(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myloma)
MonthPubmed(myloma)
Description

Extractor for the MonthReceived of a Medline object. This date corresponds to the date the article was received.

Usage

MonthReceived(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myeloma)
MonthReceived(myeloma)
Description

First five records of query of NCBI PubMed for "myeloma[MeSh]" in the past year (at the time of this writing) as a Medline object.

Usage

myeloma

Example of results from EUtilsGet

Format

A list object with five PubMed article records.

Author(s)

Stephanie Kovalchik <s.a.kovalchik@gmail.com>

Source

PubMed database of the US National Library of Medicine

See Also

EUtilsGet, Medline
NlmUniqueID-methods

| NlmUniqueID | Extracts NlmUniqueID from Medline object. |

**Description**

Extractor for the NlmUniqueID of a Medline object.

**Usage**

NlmUniqueID(object)

**Arguments**

- object: instance of class Medline

**Value**

vector

**See Also**

Medline

**Examples**

```r
data(myloma)
NlmUniqueID(myloma)
```

NlmUniqueID-methods ~~~ Methods for Function NlmUniqueID in Package RISmed ~~~

**Description**

~~ Methods for function NlmUniqueID in package RISmed ~~

**Methods**

signature(object = "Medline")
Illustrates the PMID extractor for a Medline object.

**Description**

Extractor for the PMID of a Medline object.

**Usage**

```r
PMID(object)
```

**Arguments**

- `object` instance of class `Medline`

**Value**

vector

**See Also**

`Medline`

**Examples**

```r
data(myeloma)
PMID(myeloma)
```

---

**Methods**

```r
signature(object = "Medline")
```
**PublicationStatus**

---

**print-Medline**

*Print method for Medline object*

**Description**

Print object of class Medline

**Methods**

```r
signature(object = "Medline")
```

Query translation (if provided) and total fetched record count for Medline object.

---

**print-methods**

*Print method for EUtilsSummary object*

**Description**

Print object of class EUtilsSummary

**Methods**

```r
signature(object = "EUtilsSummary")
```

Query translation for EUtilsSummary object.

---

**PublicationStatus**

*Extracts PublicationStatus from Medline object.*

**Description**

Extractor for the PublicationStatus of a Medline object.

**Usage**

```r
PublicationStatus(object)
```

**Arguments**

- `object` instance of class Medline

**Value**

vector

**See Also**

Medline
Methods for Function `publicationstatus` in Package `RISmed`

## Description

Extractor for the publication type of a Medline object.

## Usage

```r
PublicationType(object)
```

## Arguments

- `object`: instance of class `Medline`

## Value

- `list`

## See Also

- `Medline`

## Examples

```r
data(myaloma)
PublicationType(myaloma)
```
Description

Extractor for the translated Query of a Medline object.

Usage

Query(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
Query(myeloma)
Query-methods

Description

~~ Methods for function Query in package RISmed ~~

Methods

signature(object = "Medline")

QueryCount

Count of record results for EUtilsQuery

Description

Returns the number of Ids from a E-utility query

Usage

QueryCount(object)

Arguments

object object of the EUtilsSummary class.

Value

numeric count

Author(s)

Stephanie Kovalchik

See Also

EUtilsSummary
**QueryId**  
Get ids from EUtilsQuery

**Description**  
Returns the vector Ids from a E-utility query

**Usage**  
QueryId(object)

**Arguments**  
object  
object of the EUtilsSummary class.

**Value**  
character vector of ids

**Author(s)**  
Stephanie Kovalchik

**See Also**  
EUtilsSummary

---

**QueryTranslation**  
Get the NCBI query translation from EUtilsQuery

**Description**  
Returns the string translation of a E-utility query

**Usage**  
QueryTranslation(object)

**Arguments**  
object  
object of the EUtilsSummary class.

**Value**  
character query translation
**RefSource**

**Author(s)**
Stephanie Kovalchik

**See Also**
- EUtilsSummary

---

**Description**

Extractor for the RefSource of a Medline object.

**Usage**

RefSource(object)

**Arguments**

- object: instance of class Medline

**Value**

vector

**See Also**

- Medline

**Examples**

```r
data(myeloma)
RefSource(myeloma)
```

---

**Description**

~~ Methods for Function RefSource in Package RISmed ~~

**Methods**

signature(object = "Medline")
RegistryNumber-methods

RegistryNumber

Extracts RegistryNumber from Medline object.

Description

Extractor for the RegistryNumber of a Medline object.

Usage

RegistryNumber(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
RegistryNumber(myeloma)

RegistryNumber-methods

~~ Methods for Function RegistryNumber in Package RISmed ~~

Description

~~ Methods for function RegistryNumber in package RISmed ~~

Methods

signature(object = "Medline")
**show-Medline**

*Show method for Medline object*

**Description**

Show object of class Medline

**Methods**

signature(object = "Medline") Query translation (if provided) and total fetched record count for Medline object.

**show-methods**

*Show method for EUtilsSummary object*

**Description**

Show object of class EUtilsSummary

**Methods**

signature(object = "EUtilsSummary") Query translation for EUtilsSummary object.

**summary-methods**

*Summary method for EUtilsSummary object*

**Description**

Summary of object of class EUtilsSummary

**Methods**

signature(object = "EUtilsSummary",...) Returns the number of records and id vector.
Title

*Extracts Title from Medline object.*

Description

Extractor for the Title of a Medline object.

Usage

```
Title(object)
```

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

```
data(myloma)
Title(myloma)
```

Methods

```
signature(object = "Medline")
```
Volume

Description

Extractor for the Volume of a Medline object.

Usage

Volume(object)

Arguments

object instance of class Medline

Value

vector

See Also

Medline

Examples

data(myeloma)
Volume(myeloma)

Volume-methods

Description

~ Methods for function Volume in package RISmed ~

Methods

signature(object = "Medline")
### YearAccepted

<table>
<thead>
<tr>
<th>YearAccepted</th>
<th>Extracts YearAccepted from Medline object.</th>
</tr>
</thead>
</table>

#### Description

Extractor for the YearAccepted of a Medline object. This date corresponds to the date the article was accepted.

#### Usage

```r
YearAccepted(object)
```

#### Arguments

- `object`  
  instance of class Medline

#### Value

vector

#### References


#### See Also

Medline

#### Examples

```r
data(myaloma)
YearAccepted(myaloma)
```

### Methods for Function YearAccepted in Package RISmed

#### Description

~~ Methods for function YearAccepted in package RISmed ~~

#### Methods

```r
signature(object = "Medline")
```
YearEpublish

Extracts YearEpublish from Medline object.

Description

Extractor for the YearEpublish of a Medline object. This date corresponds to the date the article was published online.

Usage

YearEpublish(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myloma)
YearEpublish(myloma)

Methods

signature(object = "Medline")
Description

Extractor for the YearPmc of a Medline object. This date corresponds to the date the article was made available through Pubmed Central.

Usage

YearPmc(object)

Arguments

object instance of class Medline

Value

vector

References


See Also

Medline

Examples

data(myeloma)
YearPmc(myeloma)
**Description**

Extractor for the `yearppublish` of a `medline` object. This date corresponds to the date the article was published in print.

**Usage**

`yearppublish(object)`

**Arguments**

- `object` instance of class `medline`

**Value**

vector

**References**


**See Also**

`Medline`

**Examples**

```r
data(myloma)
yearppublish(myloma)
```

---

**Methods**

`signature(object = "Medline")`
YearPubmed-methods

---

### Description

Extracts YearPubmed from Medline object.

### Usage

```r
YearPubmed(object)
```

### Arguments

- `object` instance of class `Medline`

### Value

vector

### References


### See Also

`Medline`

### Examples

```r
data(myloma)
YearPubmed(myloma)
```

---

### Methods

~~ Methods for Function YearPubmed in Package RISmed ~~

~~ Methods for function YearPubmed in package RISmed ~~

### signature

`signature(object = "Medline")`
YearReceived

*Description*

Extractor for the YearReceived of a Medline object. This date corresponds to the date the article was received.

*Usage*

YearReceived(object)

*Arguments*

object instance of class Medline

*Value*

vector

*References*


*See Also*

Medline

*Examples*

data(myeloma)
YearReceived(myeloma)

---

YearReceived-methods  ~~ Methods for Function YearReceived in Package RISmed ~~

*Description*

~~ Methods for function YearReceived in package RISmed ~~

*Methods*

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