Package 'ENCODExplorer'

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Name ENCODExplorer

Type Package

Title A compilation of ENCODE metadata

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Description This package allows user to quickly access ENCODE project files
metadata and give access to helper functions to query the ENCODE rest api,
download ENCODE datasets and save the database in SQLite format.

License Artistic-2.0

BugReports <https://github.com/CharlesJB/ENCODExplorer/issues>

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R topics documented:

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buildConsensusPeaks   *Calculates the consensus peaks defined by the results of a previously*
                             completed ENCODE query.

Description

This function takes the result of a previous call to queryEncode, splits the contained peak files by
conditions (as specified by the split_by argument), then builds consensus peaks for each condition.

Usage

```
buildConsensusPeaks(query_results, split_by = NULL,
  consensus_threshold = 1, simplify = FALSE, temp_dir = ".",
  force = FALSE, consensus_threshold_n = NULL)
```

Arguments

query_results   A data.table returned by queryEncode or queryEncodeGeneric.

split_by   A vector of column names from query_results that will be used to split the con-
                 sensus binding sites according to condition. If NULL, all elements of query_results
                 are used in the same consensus calculation.

consensus_threshold

A numeric value between 0 and 1, indicating the proportion of peak files in which a peak must appear for it to be included within the consensus.

simplify   If TRUE, non-discriminatory columns are removed from the metadata, and if only one sample group is found, it is renamed "All".

temp_dir   The path to a directory where peak files will be downloaded.

force   A logical indicating whether already present files be redownloaded.

consensus_threshold_n

An integer indicating the number of peak files in which a peak must appear for it to be included within the consensus. IF this argument is provided, it supercedes consensus_threshold.

Value

An object of class [ENCODEBindingConsensus](#).

Examples

```
query_results = queryEncodeGeneric(biosample_name="A549", assembly="GRCh38",
                                   file_format="^bed$", output_type="^peaks$",
                                   treatment_duration_unit="minute",
                                   treatment_duration="(^5$|^10$)",
                                   target="NR3C1", fixed=FALSE)
res = buildConsensusPeaks(query_results, split_by=c("treatment_duration"),
                          consensus_threshold=0.5)
```

---

buildExpressionSummary

Calculates average expression levels of the results of a previously com-plated ENCODE query.

Description

This function takes the result of a previous call to [queryEncode](#), splits the contained expression files by conditions (as specified by the split_by argument), then calculates average expression levels for each condition.

Usage

```
buildExpressionSummary(query_results, split_by, metric = NULL,
  simplify = FALSE, aggregate_function = mean, temp_dir = ".",
  force = FALSE)
```

Arguments

query_results   A data.table returned by [queryEncode](#) or [queryEncodeGeneric](#).

split_by   A vector of column names from query_results that will be used to split the average expression levels. If NULL, all elements of query_results are used in the same average expression calculation.

metric   A regular expression, indicating which column from the ENCODE data must
                      be extracted. If NULL, ENCODExplorer data automatically detects and selects
                      one of the TPM, FPKM or featurecount columns.

simplify   If TRUE, non-discriminatory columns are removed from the metadata, and if
                      only one sample group is found, it is renamed "All".

aggregate_function
                      A function which takes a vector as input and returns a single value summarizing
                      the whole. Used to summarize expression metrics.

temp_dir   The path to a directory where peak files will be downloaded.

force   A logical indicating whether already present files be redownloaded.

Value

An object of class [ENCODEExpressionSummary](#).

Examples

```
query_results = queryEncodeGeneric(biosample_name="neural tube",
                                   output_type="gene quantifications",
                                   file_type="tsv",
                                   assay="polyA plus RNA-seq",
                                   assembly="^mm10$",
                                   dataset_biosample_summary="(15.5|13.5)",
                                   fixed=FALSE)

buildExpressionSummary(query_results, split_by="dataset_biosample_summary")
```

---

clean_column   *Clean a single column of the data.frame*

Description

The input column can either be a data.frame, a vector of character, a vector of numeric or a list of
one the previous type.

Usage

```
clean_column(column_name, table)
```

Arguments

column_name   The name of the column for the table that is been process.

table   The table produced by the extract_table function.

Details

This function will either remove columns that are not relevant and convert columns to a vector or
data.frame.

Value

a data.frame corresponding to the cleaned version of the input data.frame.

---

clean_table *Clean a data.frame that was produced by ENCODE REST API*

Description

data.frames produced when converting JSON to data.frame with the fromJSON function will sometime have columns that are lists and/or columns that are data.frames.

Usage

```
clean_table(table)
```

Arguments

table   The table produced by the extract_table function.

Details

This function will either remove columns that are not relevant and convert columns to a vector or data.frame.

Value

a data.frame corresponding to the cleaned version of the input data.frame.

---

createDesign *Create a design for the files associated with the result of a queryEncode, fuzzySearch research or a* data.table *from createDesign.*

Description

Create a design for the files associated with the result of a queryEncode, fuzzySearch research or a data.table from createDesign.

Usage

```
createDesign(input = NULL, df = get_encode_df(), split = FALSE,
  fileFormat = "bam", dataset_type = "experiments", format = "long",
  output_type = "data.table", ID = c(1, 2))
```

Arguments

input   The data.table created by a queryEncode or searchEncode research, or a

df   The data.table used to extract the files link. Default :get_encode_df()

split   Allow to the function to return a list of data.table where each data.table contain the files for a single experiment Default: FALSE.

fileFormat   A string that correspond to the type of the files that need to be extracted. Default: bam

dataset_type	A string that correspong to the type of dataset that will be extrated. Default: experiments
format	The format (long or wide) to represent the data. The 'long' format will contain three columns (File, Experiment, Value). The 'wide' format organize the data as an array with the experiments as columns and files as rows. Default: long
output_type	The type of output of the function, can be data.table or a data.table Default: data.table
ID	A two element numeric vector, that first element is the value assign to replicate and the second is the value assign to control. Default: 1 and 2

Value

is a data.table with files for all the experiments or a list of data.table with all the file per experiment when the parameter split is set to TRUE

Examples

```
# You will need to replace get_encode_df_demo() with your own encode_df object,
# the get_encode_df() function or the get_encode_df_full() function.
fuzzy_result <- fuzzySearch(searchTerm = "brca",
database=get_encode_df_demo(), filterVector ="target")
design_result <- createDesign(input = fuzzy_result,df=get_encode_df_demo(),
fileFormat="fastq")
```

---

downloadEncode	*downloadEncode is used to download a serie of files or datasets using their accession.*

Description

downloadEncode is used to download a serie of files or datasets using their accession.

Usage

```
downloadEncode(file_acc = NULL, df = get_encode_df(), format = "all",
  dir = ".", force = TRUE)
```

Arguments

file_acc	A character of ENCODE file or experiment accessions. Can also be a data.table coming from any ENCODExplorer search function.
df	The reference data.table used to find the download. Files that are not available will be searched directly through the current ENCODE database.
format	The specific file format to download. Default : all
dir	The directory to locate the downloaded files
force	boolean to allow downloading a file even if it already exists in the directory. Default : TRUE

Value

A `character` with the downloaded files

Examples

```
fuzzy_result <- fuzzySearch("ENCSR396EAG", get_encode_df_demo(), filterVector = "accession")
## Not run: downloadEncode(fuzzy_result, format="tsv")
```

---

download_dt_file   *Downloads all files inside a data.table.*

Description

Downloads all files inside a data.table.

Usage

```
download_dt_file(input_dt, dir, force, show_experiment = FALSE)
```

Arguments

input_dt	The data.table to be looped over for determining which files should be downloaded.
dir	The path of the directory where the downloaded files should be saved.
force	If TRUE, existing files are downloaded again.
show_experiment	
	If TRUE, the name of the experiment is extracted from the data table and displayed in status messages.

Value

The name of the files which were downloaded.

---

download_single_file   *download_single_file Downloads a single file and checks if md5 checksums match.*

Description

download_single_file Downloads a single file and checks if md5 checksums match.

Usage

```
download_single_file(file_url, file_md5, dir = ".",
  experiment_name = NULL, force = TRUE)
```

Arguments

file_url	A character giving the URL of the file to be downloaded.
file_md5	A character giving the expected md5 checksum hash of the file to be downloaded.
dir	The directory where the downloaded file should be saved. Default: "."
experiment_name	
	An optional experiment name to be displayed with the status reports.
force	boolean indicating if existing files should be downloaded again. Default : TRUE

Value

A character with the name of the downloaded file.

ENCODEBindingConsensus-class

ENCODEBindingConsensus: consensus peaks derived from EN-CODE files.

Description

ENCODEBindingConsensus objects represent the intersection of called peaks across multiple replicates, split by arbitrary metadata columns. They can be constructed using the queryConsensusPeaks and buildConsensusPeaks functions.

Usage

```
## S4 replacement method for signature 'ENCODEBindingConsensus,character'
names(x) <- value

peaks(x)

## S4 method for signature 'ENCODEBindingConsensus'
peaks(x)

consensus(x)

## S4 method for signature 'ENCODEBindingConsensus'
consensus(x)

## S4 method for signature 'ENCODEBindingConsensus'
show(object)
```

Arguments

x	The ENCODESummary object.
value	The new names for the elements of the ENCODESummary object.
object	The ENCODESummary object.

Value

For peaks, a `list` of [GRangesList](#) of the per-condition original peaks used to build the object. For consensus, a [GRangesList](#) of the per-condition consensus peaks.

Slots

peaks The per-condition original peaks used to build the consensus.

consensus The per-condition consensus peaks.

consensus_threshold The proportion of replicates which must bear a specific peak for it to be added to the set of consensus peaks.

Methods

ENCODEBindingConsensus object can be accessed through the methods from the ENCODESummary class, as well as ENCODEBindingConsensus-specific methods:

peaks Returns a `list` of [GRangesList](#) of the per-condition original peaks used to build the object.

consensus Returns a [GRangesList](#) of the per-condition consensus peaks.

Examples

```
res = queryConsensusPeaks("22Rv1", "GRCh38", "CTCF")
peaks(res)
consensus(res)
```

ENCODEExpressionSummary-class

ENCODEExpressionSummary summarize means of expression across ENCODE files.

Description

ENCODEExpressionSummary objects represent means (or medians) of expression levels across multiple replicate samples, split by arbitrary metadata columns. They can be constructed using the [queryGeneExpression](#), [queryTranscriptExpression](#) and [buildExpressionSummary](#) functions.

Usage

```
## S4 replacement method for signature 'ENCODEExpressionSummary,character'
names(x) <- value

metric_data(x)

## S4 method for signature 'ENCODEExpressionSummary'
metric_data(x)

metric(x)

## S4 method for signature 'ENCODEExpressionSummary'
metric(x)
```

```
raw_data(x)

## S4 method for signature 'ENCODEEExpressionSummary'
raw_data(x)

## S4 method for signature 'ENCODEEExpressionSummary'
show(object)
```

Arguments

x	The ENCODESummary object.
value	The new names for the elements of the ENCODESummary object.
object	The ENCODESummary object.

Value

For raw_data, a list of GRangesList of the per-condition original expression tables used to build the object. For metric, the regular expression used to select the column of metric values from the ENCODE files. For metric_data, a data.frame of the per-condition metric values.

Slots

raw_data A list of data-frames containing the full raw data of each of the downloaded ENCODE files.

metric A character giving the regular expression used to extract expression metrics from the ENCODE files.

metric_data A data.frame of the per-condition metric values.

expression_type The type of expression which is being reported, either gene or transcripts.

Methods

ENCODEEExpressionSummary object can be accessed through the methods from the ENCODESummary class, as well as ENCODEBindingConsensus-specific methods:

raw_data Returns a list of GRangesList of the per-condition original expression tables used to build the object.

metric Returns the regular expression used to select the column of metric values from the ENCODE files.

metric_data Returns a data.frame of the per-condition metric values.

Examples

```
res = queryGeneExpression("bone marrow")
raw_data(res)
metric(res)
metric_data(res)
```

ENCODESummary-class *ENCODESummary objects: summaries of multiple ENCODE files.*

Description

ENCODESummary objects is the base class of ENCODEBindingConsensus-class and ENCODEExpressionSummary-class objects. It provides methods to query which files were used to build the summary, the names of the grouped elements as well as their metadata.

Usage

```
## S4 method for signature 'ENCODESummary'
names(x)

## S4 replacement method for signature 'ENCODESummary,character'
names(x) <- value

## S4 method for signature 'ENCODESummary'
length(x)

## S4 method for signature 'ENCODESummary'
metadata(x)

file_metadata(x)

## S4 method for signature 'ENCODESummary'
file_metadata(x)

files(x)

## S4 method for signature 'ENCODESummary'
files(x)

## S4 method for signature 'ENCODESummary'
show(object)
```

Arguments

x	The ENCODESummary object.
value	The new names for the elements of the ENCODESummary object.
object	The ENCODESummary object.

Value

For names, names<-, a copy of the object. For length, the number of elements. For files, a character vector. For file_metadata, a list of data-frames with each file's metadata. For metadata, a data-frame with the discriminating metadata of each sample group.

Slots

files The path of the files used in this summary.

file_metadata A list of data-frames representing the ENCODE metadata of the files used to build the per-condition consensus.

metadata A data-frame with the metadata of each element in the summary.

Methods

ENCODESummary object can be accessed through a variety of methods:

names Returns the names of the elements.

names<- Sets the names of the elements.

length Returns the number of elements.

files Returns a character vector of the ENCODE files used to build this object.

file_metadata Returns a list of per-condition metadata of the ENCODE files used to build the object.

metadata Returns a data-frame of the common per-condition metadata of the ENCODE files used to build the object.

show Print a summary of the object.

Examples

```
res = queryConsensusPeaks("22Rv1", "GRCh38", "CTCF")
names(res)
files(res)
metadata(res)
print(res)
```

ENCODExplorer *ENCODExplorer*

Description

ENCODExplorer

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fuzzySearch	*Fuzzysearch is a searching function for a string or a list of string within the encode_df* data.table. *For faster processing, pass encode_df object as database parameter.*

Description

Fuzzysearch is a searching function for a string or a list of string within the encode_df data.table. For faster processing, pass encode_df object as database parameter.

Usage

```
fuzzySearch(searchTerm = NULL, database = get_encode_df(),
  filterVector = NULL, multipleTerm = FALSE, ignore_case = TRUE)
```

Arguments

searchTerm	The keyword or a list of keyword to search.
database	A data.table with similar format as encode_df database.
filterVector	A character to apply the search on specific column.
multipleTerm	A boolean that indicate if the searchTerm is a list or even multiple searchTerm separete by a comma in a single string.
ignore_case	A boolean to enable the case sensitivity.

Value

A data.table corresponding the every row of the database that contain at least of one the searchTerm.

Examples

```
fuzz_ex <- fuzzySearch(searchTerm=c("ELAVL1","atf7"),
database=get_encode_df_demo(), filterVector ="target", multipleTerm = TRUE)
```

---

get_encode_df	*Returns a "light" version of ENCODE file metadata.*

Description

Returns a "light" version of ENCODE file metadata.

Usage

```
get_encode_df()
```

Value

a data.table containing the most relevant metadata for all ENCODE files.

Examples

```
my_encode_df = get_encode_df()
```

---

get_encode_df_demo   *Get a demo encode_df*

Description

Get a demo encode_df

Usage

```
get_encode_df_demo()
```

Value

A vector of regions filenames

Examples

```
encode_df_demo <- get_encode_df_demo()
```

---

get_encode_df_full   *Concatenates all available file metadata into a single data table.*

Description

Concatenates all available file metadata into a single data table.

Usage

```
get_encode_df_full()
```

Value

a `data.table` containing relevant metadata for all ENCODE files.

Examples

```
my_full_encode_df = get_encode_df_full()
```

queryConsensusPeaks *Queries ENCODE for consensus peaks.*

Description

Queries the ENCODE metadata to determine which peak files exists for the `target` protein in the `biosample_name` biosample for the `assembly` genomic assembly, then builds per-condition (as determined by the `treatment` column and its adjuncts) consensus peaks.

Usage

```
queryConsensusPeaks(biosample_name, assembly, target, simplify = FALSE,
  use_interactive = FALSE)
```

Arguments

biosample_name   The cell-line/tissue for which consensus peaks should be queried.

assembly   The target genomic assembly.

target   The target protein.

simplify   If TRUE, non-discriminatory columns are removed from the metadata, and if only one sample group is found, it is renamed "All".

use_interactive

                 If TRUE, the user will be prompted when ENCODExplorer must choose how to filter the available data.

Details

If you wish to have more control over the files used to build the consensus, use [buildConsensusPeaks](#).

Value

An object of class [ENCODEBindingConsensus](#).

See Also

[buildConsensusPeaks](#)

Examples

```
queryConsensusPeaks("22Rv1", "GRCh38", "CTCF")
```

queryEncode   *Produce a subset of data following predefined criteria*

Description

After running the prepare_ENCODEDb function, this function will allow you to extract a subset of data encording to the following criteria : accession, assay name, biosample, dataset accession, file accession, file format, laboratory, donor organism, target and treatment.

Usage

```
queryEncode(df = get_encode_df(), set_accession = NULL, assay = NULL,
  biosample_name = NULL, dataset_accession = NULL,
  file_accession = NULL, file_format = NULL, lab = NULL,
  organism = NULL, target = NULL, treatment = NULL, project = NULL,
  biosample_type = NULL, file_status = "released",
  status = "released", fixed = TRUE, quiet = FALSE, fuzzy = FALSE)
```

Arguments

df	data.frame containing ENCODE experiment and dataset metadata
set_accession	character string to select the accession
assay	character string to select the assay type
biosample_name	character string to select the biosample name
dataset_accession	
	character string to select the dataset accession
file_accession	character string to select the file accesion
file_format	character string to select the file format
lab	character string to select the laboratory
organism	character string to select the donor organism
target	character string to select the experimental target
treatment	character string to select the treatment
project	character string to select the project
biosample_type	character string to select the biosample type
file_status	character string to select the file status ("released", "revoked", "all"). Default "released"
status	character string to select the dataset/experiment status
fixed	logical. If TRUE, pattern is a string to be matched as it is.
quiet	logical enables to switch off the result summary information when setting at TRUE.
fuzzy	Search for substring or alternate hyphenations. Default: TRUE

Details

By default, the query can be made on an exact match term. This behaviour can be modified by setting the fixed argument at TRUE

Value

a `data.frames` containing data about ENCODE experiments and datasets

Examples

```
queryEncode(df = get_encode_df_demo(), biosample_name = "A549",
            file_format = "bam")
```

---

queryEncodeGeneric   *Produce a subset of data following predefined criteria.*

Description

After running the `prepare_ENCODEDb` function, this function will allow you to extract a subset of the files it describes. Search terms are passed in as named parameters, where the parameter's name indicates the field, and its value the terms to be searched for. Each term may be a vector of values, which are processed using the OR logical operation (the function will return all results matching at least one of the terms). In contrast, separate search fields are subjected to the AND logical operation.

Usage

```
queryEncodeGeneric(df = get_encode_df(), fixed = TRUE, quiet = FALSE,
  fuzzy = FALSE, ...)
```

Arguments

df	`data.frame` containing ENCODE experiment and dataset metadata
fixed	logical. If TRUE, pattern is a string to be matched as it is. If FALSE, case insensitive perl regular expression matching is used.
quiet	logical enables to switch off the result summary information
fuzzy	logical. If TRUE while fixed is also TRUE, allows searching by substrings and alternate space or hyphenation spellings. For example, "MCF7" will match "MCF-7" or "RNA-Seq" will match "polyA mRNA RNA-Seq".
...	All other named parameters are used as terms to be searched for, with the parameter name naming the field (biosample_name, assay, etc.) and the value being the terms that are searched for.

Details

Possible search fields include the following: accession, assay name, biosample, dataset accession, file accession, file format, laboratory, donor organism, target and treatment.

By default, the query is made using exact matches. Set `fixed` to `FALSE` to use regular expression matching, and `fuzzy` to `TRUE` to search for substring or alternate hyphenations. These options cannot be combined.

Value

a `data.frames` containing data about ENCODE experiments and datasets

Examples

```
# Will return all bam files from biosample A549.
res = queryEncodeGeneric(biosample_name = "A549", file_format = "bam")

# Will return all bam files from biosamples A549 and HeLA-S3.
res = queryEncodeGeneric(biosample_name = c("A549", "HeLa-S3"), file_format = "bam")

# Will return all fles where the assay contains RNA-Seq or a substrings
# thereof, such as "polyA mRNA RNA-Seq" or "small RNA-Seq".
res = queryEncodeGeneric(assay="RNA-Seq", fuzzy=TRUE)
```

queryExpressionGeneric

Queries and returns average expression levels for a given biosample_name.

Description

ENCODE files are automatically split by biosample_description (which will separate samples from different cell fractions or sequencing methods) and by the treatment columns.

Usage

```
queryExpressionGeneric(biosample_name, level = "gene quantifications",
  assay = NULL, assembly = NULL, simplify = TRUE,
  use_interactive = FALSE)
```

Arguments

biosample_name	The cell-line/tissue for which average expression levels should be queried.
level	The type of expression level to summarize, either "gene quantifications" or "transcript quantifications".
assay	The assay type to summarize. If NULL, the most generic assay type is automatically selected.
assembly	The target genomic assembly. If NULL, the most recent available assembly is selected.
simplify	If TRUE, non-discriminatory columns are removed from the metadata, and if only one sample group is found, it is renamed "All".
use_interactive	If TRUE, the user will be prompted to select prefered metadata values when multiple possibilities are available.

Value

An object of class [ENCODEExpressionSummary](#).

See Also

[buildExpressionSummary](#), [queryGeneExpression](#)

Examples

```
queryExpressionGeneric("bone marrow")
```

---

queryGeneExpression	*Queries and returns average gene expression level for a given biosample_name.*

Description

ENCODE files are automatically split by biosample_description (which will separate samples from different cell fractions or sequencing methods) and by the treatment columns.

Usage

```
queryGeneExpression(biosample_name, assay = NULL, assembly = NULL,
  simplify = TRUE, use_interactive = FALSE)
```

Arguments

biosample_name The cell-line/tissue for which average expression levels should be queried.

assay   The assay type to summarize. If NULL, the most generic assay type is automatically selected.

assembly   The target genomic assembly. If NULL, the most recent available assembly is selected.

simplify   If TRUE, non-discriminatory columns are removed from the metadata, and if only one sample group is found, it is renamed "All".

use_interactive

                If TRUE, the user will be prompted to select prefered metadata values when multiple possibilities are available. available assembly is selected.

Value

An object of class ENCODEExpressionSummary.

See Also

buildExpressionSummary, queryTranscriptExpression

Examples

```
queryGeneExpression("bone marrow")
```

---

queryTranscriptExpression

> *Queries and returns average transcript expression level for a given biosample_name.*

Description

ENCODE files are automatically split by biosample_description (which will separate samples from different cell fractions or sequencing methods) and by the treatment columns.

Usage

```
queryTranscriptExpression(biosample_name, assay = NULL,
  assembly = NULL, simplify = TRUE, use_interactive = FALSE)
```

Arguments

biosample_name	The cell-line/tissue for which average expression levels should be queried.
assay	The assay type to summarize. If NULL, the most generic assay type is automatically selected.
assembly	The target genomic assembly. If NULL, the most recent available assembly is selected.
simplify	If TRUE, non-discriminatory columns are removed from the metadata, and if only one sample group is found, it is renamed "All".
use_interactive	If TRUE, the user will be prompted to select prefered metadata values when multiple possibilities are available.

Value

An object of class ENCODEExpressionSummary.

See Also

buildExpressionSummary, queryGeneExpression

Examples

```
queryTranscriptExpression("bone marrow")
```

---

searchEncode   *Simulate a query on ENCODE website and return the result as a* `data.frame`

Description

`data.frames` produced when converting JSON to `data.frame` with the `fromJSON` function will sometime have columns that are lists and/or columns that are `data.frames`.

Usage

```
searchEncode(searchTerm = NULL, limit = 10, quiet = FALSE)
```

Arguments

searchTerm   a search term

limit   the maximum number of return entries, default 10.

quiet   logical value enables to switch off the result summary information when setting at TRUE. will return all the result. It can generate large results set.

Details

This function simulates a basic query on ENCODE website

Value

a `data.frame` corresponding Every object that matches the search term

Examples

```
searchEncode("ChIP-Seq+H3K4me1")
```

---

searchToquery   *Convert searchEncode output in queryEncode output.*

Description

After processing to a basic search with the `searchEncode` function you can convert your result in a queryEncode output. Thus you can benefit from the collected metadata.

Usage

```
searchToquery(df = get_encode_df(), searchResults, quiet = TRUE)
```

Arguments

df   list of two `data.frame` containing ENCODE experiment and dataset metadata.

searchResults   the results set generated from `searchEncode`

quiet   logical enables to switch off the result summary information when setting at TRUE.

Details

The output is compatible with the dowload function.

Value

a `list` of two `data.frames` containing data about ENCODE experiments and datasets

Examples

```
search_res <- searchEncode(searchTerm = "switchgear elavl1", limit = "1")
res <- searchToquery(searchResults = search_res, quiet = TRUE)
```

---

shinyEncode   *Launch a shiny interface for ENCODExplorer*

Description

Launch a shiny interface for ENCODExplorer

Usage

```
shinyEncode()
```

Value

None

Examples

```
## Not run: shinyEncode
```

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