

Package ‘cgdv17’

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Title Complete Genomics Diversity Panel, chr17 on 46 individuals

Version 0.0.21

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Description Complete Genomics Diversity Panel, chr17 on 46 individuals

Suggests

Imports Biobase, IRanges

Depends R (>= 2.15), VariantAnnotation, org.Hs.eg.db, methods, GGtools, TxDb.Hsapiens.UCSC.hg19.knownGene, parallel

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License Artistic 2.0

LazyLoad yes

biocViews genetics

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cgdv17-package

*Complete Genomics Diversity Panel, chr17 on 46 individuals***Description**

Complete Genomics Diversity Panel, chr17 on 46 individuals, illustrating subject-specific variant sets

Details

Package: cgdv17
 Version: 0.0.9
 Suggests:
 Imports: Biobase, IRanges
 Depends: R (>= 2.14), VariantAnnotation, org.Hs.eg.db, methods
 License: Artistic 2.0
 LazyLoad: yes
 biocViews: genetics
 Built: R 2.15.0; ; 2012-03-09 12:45:57 UTC; unix

Index:

countVariants count variants in a raggedVariantSet instance
 getRVS acquire data for and construct a ragged variant set instance
 padToReference create a snpStats SnpMatrix instance by padding a ragged variant set to reference alleles wherever a variant is not recorded
 raggedVariantSet-class Class "raggedVariantSet"
 variantGRanges acquire a list of GRanges recording variants and locations

see vignette; CY17 is an ExpressionSet on individuals from CEU and YRI overlapping with the diversity set, popvec enumerates source populations, h1 is an exemplar VCF header structure

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countVariants	<i>count variants in a raggedVariantSet instance</i>
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Description

count variants in a raggedVariantSet instance

Usage

```
countVariants(rvs, delim, qthresh = 160, applier = lapply)
```

Arguments

rvs	instance of raggedVariantSet
delim	GRanges instance
qthresh	quality threshold for keeping a variant in count
applier	lapply-like function

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getRVS	<i>acquire data for and construct a ragged variant set instance</i>
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Description

acquire data for and construct a ragged variant set instance

Usage

```
getRVS(packname, fns2samplenames = function(x)
  gsub(".*(NA.....).*", "\\1", x))

getrd(x, id)
```

Arguments

packname	string naming package where the resources are found
fns2samplenames	function to transform filenames to sample name tokens
x	instance of raggedVariantSet
id	character to select sample

Details

currently very specialized, as the protocol for managing collections of VCF files with discrepant variant sets per subject is not clear

assumes the package has inst/rowdata where row data of [readVcf](#) results are held

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padToReference	<i>create a <code>snpStats SnpMatrix</code> instance by padding a ragged variant set to reference alleles wherever a variant is not recorded</i>
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Description

create a `snpStats SnpMatrix` instance by padding a ragged variant set to reference alleles wherever a variant is not recorded

Usage

```
padToReference(rv, gr, qthresh = 160, applier = lapply)
```

Arguments

rv	raggedVariantSet instance
gr	<code>GRanges</code> instance
qthresh	quality lower bound for retention of variant
applier	<code>lapply</code> like function

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raggedVariantSet-class

Class "raggedVariantSet"

Description

manage information on non-aligned variant sets from multiple VCFs

Objects from the Class

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

Slots

filenames: files will be held in `inst/rowdata`, named here

sampleNames: names of samples managed

Methods

[`signature(x = "raggedVariantSet", i = "ANY", j = "ANY", drop = "ANY")`: familiar
subsetting syntax

sampleNames `signature(object = "raggedVariantSet")`: getter

show `signature(object = "raggedVariantSet")`: concise report

variantGRanges `signature(rvs = "raggedVariantSet", delim = "GRanges", qthresh = "missing", applier = "m")`:
getter

variantGRanges `signature(rvs = "raggedVariantSet", delim = "GRanges", qthresh = "numeric", applier = "f")`:
getter with quality threshold

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Examples

```
showClass("raggedVariantSet")
```

variantGRanges *acquire a list of GRanges recording variants and locations*

Description

acquire a list of GRanges recording variants and locations

Usage

```
variantGRanges(rvs, delim, qthresh = 160, applier = lapply)
```

```
variantNames(rvs, delim, qthresh=160, applier=lapply)
```

Arguments

rvs	raggedVariantSet instance
delim	GRanges instance for confinement
qthresh	lower bound on quality
applier	lapply like function

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