Package 'cgdv17'

October 18, 2017

Title Complete Genomics Diversity Panel, chr17 on 46 individuals

Version 0.14.0

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Description Complete Genomics Diversity Panel, chr17 on 46 individuals

Depends R (>= 2.15), methods, VariantAnnotation (>= 1.15.15)

Imports BiocGenerics, S4Vectors, IRanges, GenomicRanges, Biobase

Suggests parallel, GGtools, TxDb.Hsapiens.UCSC.hg19.knownGene, org.Hs.eg.db, illuminaHumanv1.db

License Artistic-2.0

LazyLoad yes

biocViews SequencingData, SNPData, BiocViews

NeedsCompilation no

R topics documented:

`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

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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` *count variants in a raggedVariantSet instance*

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

Author(s)

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`getRVS` *acquire data for and construct a ragged variant set instance*

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/rowranges where row ranges of `readVcf` results are held

Author(s)

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

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	GRanges instance
qthresh	quality lower bound for retention of variant
applier	lapply like function

Author(s)

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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/rowranges, 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` getter

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

Author(s)

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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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