frmaTools

October 5, 2010

`convertPlatform` *convertPlatform*

Description

Convert an AffyBatch object from one platform to another where the new platform is a subset of the original (i.e. hgu133atag to hgu133a).

Usage

```
convertPlatform(object, new.platform)
```

Arguments

`object`	an AffyBatch object to be converted
`new.platform`	the name of the platform to be converted to

Value

An AffyBatch object containing the data from the original object that could be mapped to the new platform.

Author(s)

Matthew N. McCall

Examples

```
library(frmaExampleData)
data(AffyBatch133atag)
object <- convertPlatform(AffyBatch133atag, "hgu133a")
```

hgu133a2ASaFrma *hgu133a2ASaFrma*

Description

Preprocess Affymetrix HGU133a2 arrays as if they were HGU133a arrays using fRMA.

Usage

```
hgu133a2ASaFrma(object, verbose=FALSE)
```

Arguments

object	an AffyBatch object
verbose	logical value. If TRUE then some messages are displayed while the function runs

Value

A matrix of preprocessed expression values.

Author(s)

Matthew N. McCall

Examples

```
## this takes a long time
## Not run:
  data(AffyBatch133a2)
  e <- hgu133a2ASaFrma(AffyBatch133a2)

## End(Not run)
```

hgu133plus2ASaFrma *hgu133plus2ASaFrma*

Description

Preprocess Affymetrix HGU133plus2 arrays as if they were HGU133a arrays using fRMA.

Usage

```
hgu133plus2ASaFrma(object, verbose=FALSE)
```

Arguments

object	an AffyBatch object
verbose	logical value. If TRUE then some messages are displayed while the function runs

Value

A matrix of preprocessed expression values.

Author(s)

Matthew N. McCall

Examples

```
## this take a long time
## Not run:
  library(frmaExampleData)
  data(AffyBatch133plus2)
  e <- hgu133plus2ASaFrma(AffyBatch133plus2[,1])

## End(Not run)
```

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makeVectorPackage *makeVectorPackage*

Description

Make a package containing the vectors used by the frma package. If you don't plan to distribute and maintain this set of vectors, consider using the function makeVectors instead.

Usage

```
  makeVectorPackage(object, batch.id, version, maintainer, species, outdir=".",
  makeVectors(object, batch.id, verbose=TRUE)
```

Arguments

object	an AffyBatch object from which to create the vectors
batch.id	a vector of batch ids used to compute within and between batch variances
version	the version number of the package to be created
maintainer	typically your name
species	species of samples in object
outdir	directory in which to create the package
unlink	logical value. If TRUE and outdir already contains a file or directory with the same name as the package being generated, then try to unlink (remove) it.
verbose	logical value. If TRUE then some messages are displayed while the function runs

Value

The makeVectorPackage function creates a package with the name <array platform>frmavecs. For example is the object contains HGU133a arrays, the package would be called HGU133afrmavecs.

The makeVectors function creates a list with 5 elements:

normVec	normalization vector
probeVec	probe effect vector
probeVarWithin	within batch probe variance
probeVarBetween	between batch probe variance
probesetSD	within probeset standard deviation

Author(s)

Matthew N. McCall

Examples

```
## this takes a long time
## Not run:
  library(frmaExampleData)
  data(AffyBatch133a)
  batch.id <- rep(1:3, each=3)
  vecs <- makeVectors(AffyBatch133a, batch.id)

## End(Not run)
```

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