

R documentation

of ‘Rigroup-package.Rd’ etc.

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R topics documented:

| | |
|------------------------|----|
| Rigroup | 1 |
| igroupAlls | 2 |
| igroupAnys | 3 |
| igroupCounts | 4 |
| igroupMaxs | 5 |
| igroupMeans | 6 |
| igroupMins | 7 |
| igroupProds | 8 |
| igroupRanges | 9 |
| igroupSums | 10 |

| | |
|--------------|-----------|
| Index | 11 |
|--------------|-----------|

| | |
|---------|--|
| Rigroup | <i>package to calculate selected basic statistics for each group</i> |
|---------|--|

Description

This package provides a number of optimized functions to quickly calculate a selected set of basic functions for each group in a data vector `x` where a small integer group vector `i` indicates group membership. Functions include `Alls`, `Anys`, `Counts`, `Maxs`, `Means`, `Mins`, `Prods`, `Ranges` and `Sums`.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupCounts](#) [igroupMaxs](#) [igroupMeans](#) [igroupMins](#)
[igroupProds](#) [igroupRanges](#) [igroupSums](#)

| | |
|------------|---|
| igroupAlls | <i>calculates logical All for small integer groups of logical vectors</i> |
|------------|---|

Description

This function allows a user to quickly calculate the logical All for each small integer group of a logical vector .

Usage

```
igroupAlls(x,i,na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating Alls for each group in a logical data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupAlls: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

See Also

[igroupAnys](#) [igroupCounts](#) [igroupMaxs](#) [igroupMeans](#) [igroupMins](#) [igroupProds](#)
[igroupRanges](#) [igroupSums](#)

Examples

```
y <- rnorm(100)
i <- rep(1:25,4)
x <- (y > 1.0)
alls <- igroupAlls(x,i)
alls
```

| | |
|------------|---|
| igroupAnys | <i>calculates logical Any for small integer groups of logical vectors</i> |
|------------|---|

Description

This function allows a user to quickly calculate the logical Any for each small integer group of a logical vector .

Usage

```
igroupAnys(x, i, na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating Anys for each group in a logical data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupAnys: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupCounts](#) [igroupMaxs](#) [igroupMeans](#) [igroupMins](#) [igroupProds](#)
[igroupRanges](#) [igroupSums](#)

Examples

```
y <- rnorm(100)
i <- rep(1:25,4)
x <- (y > 1.0)
anys <- igroupAnys(x,i)
anys
```

| | |
|--------------|--|
| igroupCounts | <i>calculate Counts for small integer groups</i> |
|--------------|--|

Description

This function allows a user to quickly calculate the number of observations in each small integer group of a data vector .

Usage

```
igroupCounts(x,i,na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A numeric, integer, or logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating counts for each group in a data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupCounts: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupMaxs](#) [igroupMeans](#) [igroupMins](#) [igroupProds](#) [igroupRanges](#)
[igroupSums](#)

Examples

```
x <- rnorm(100)
i <- rep(1:25,4)
cnts <- igroupCounts(x,i)
cnts
```

| | |
|------------|---|
| igroupMaxs | <i>calculate maximum for small integer groups</i> |
|------------|---|

Description

This function allows a user to quickly calculate the maximum for each small integer group of a data vector .

Usage

```
igroupMaxs(x, i, na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A numeric, integer, or logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating maximums for each group in a data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupMaxs: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupCounts](#) [igroupMeans](#) [igroupMins](#) [igroupProds](#)
[igroupRanges](#) [igroupSums](#)

Examples

```
x <- rnorm(100)
i <- rep(1:25, 4)
maxs <- igroupMaxs(x, i)
maxs
```

igroupMeans *calculate means for small integer groups*

Description

This function allows a user to quickly calculate the mean for each small integer group of a data vector .

Usage

```
igroupMeans(x,i,na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A numeric, integer, or logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating means for each group in a data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupMeans: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupCounts](#) [igroupMaxs](#) [igroupMins](#) [igroupProds](#)
[igroupRanges](#) [igroupSums](#)

Examples

```
x <- rnorm(100)
i <- rep(1:25,4)
means <- igroupMeans(x,i)
means
```

| | |
|------------|--|
| igroupMins | <i>calculate minimums for small integer groups</i> |
|------------|--|

Description

This function allows a user to quickly calculate the minimum for each small integer group of a data vector .

Usage

```
igroupMins(x, i, na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A numeric, integer, or logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating minimums for each group in a data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupMins: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupCounts](#) [igroupMaxs](#) [igroupMeans](#) [igroupProds](#)
[igroupRanges](#) [igroupSums](#)

Examples

```
x <- rnorm(100)
i <- rep(1:25,4)
mins <- igroupMins(x,i)
mins
```

| | |
|-------------|--|
| igroupProds | <i>calculate products for small integer groups</i> |
|-------------|--|

Description

This function allows a user to quickly calculate the product for each small integer group of a data vector .

Usage

```
igroupProds(x,i,na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A numeric, integer, or logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating products for each group in a data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupProds: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupCounts](#) [igroupMaxs](#) [igroupMeans](#) [igroupMins](#)
[igroupRanges](#) [igroupSums](#)

Examples

```
x <- rnorm(100)
i <- rep(1:25,4)
prods <- igroupProds(x,i)
prods
```

| | |
|--------------|--|
| igroupRanges | <i>calculate ranges for small integer groups</i> |
|--------------|--|

Description

This function allows a user to quickly calculate the range for each small integer group of a data vector .

Usage

```
igroupRanges(x, i, na.rm=TRUE)
```

Arguments

| | |
|-------|--|
| x | A numeric, integer, or logical data vector |
| i | A small integer vector indicating group membership 1:ngroups |
| na.rm | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating ranges for each group in a data vector where a small integer vector (1:number of groups) indicates group membership. na.rm is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

igroupRanges: Returns a vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupCounts](#) [igroupMaxs](#) [igroupMeans](#) [igroupMins](#)
[igroupProds](#) [igroupSums](#)

Examples

```
x <- rnorm(100)
i <- rep(1:25,4)
rngs <- igroupRanges(x,i)
rngs
```

`igroupSums`*calculate Sums for small integer groups*

Description

This function allows a user to quickly calculate the sums for each small integer group of a data vector .

Usage

```
igroupSums(x,i,na.rm=TRUE)
```

Arguments

| | |
|--------------------|--|
| <code>x</code> | A numeric, integer, or logical data vector |
| <code>i</code> | A small integer vector indicating group membership 1:ngroups |
| <code>na.rm</code> | if TRUE remove NAs before use (defaults to TRUE) |

Details

This package provides a fast implementation for calculating sums for each group in a data vector where a small integer vector (1:number of groups) indicates group membership. `na.rm` is used to determine how NAs are handled. The return value is a vector with length(number of groups).

Value

`igroupSums`: Returns an vector with length equal to the number of groups.

Author(s)

K. Hendricks with lots of help from B. Dunlap

References

None

See Also

[igroupAlls](#) [igroupAnys](#) [igroupCounts](#) [igroupMaxs](#) [igroupMeans](#) [igroupMins](#)
[igroupProds](#) [igroupRanges](#)

Examples

```
x <- rnorm(100)
i <- rep(1:25,4)
sums <- igroupSums(x,i)
sums
```

Index

*Topic **package**

Rigroup, [1](#)

*Topic **utilities**

igroupAlls, [2](#)

igroupAnys, [3](#)

igroupCounts, [4](#)

igroupMaxs, [5](#)

igroupMeans, [6](#)

igroupMins, [7](#)

igroupProds, [8](#)

igroupRanges, [9](#)

igroupSums, [10](#)

igroupAlls, [1](#), [2](#), [3–10](#)

igroupAnys, [1](#), [2](#), [3](#), [4–10](#)

igroupCounts, [1–3](#), [4](#), [5–10](#)

igroupMaxs, [1–4](#), [5](#), [6–10](#)

igroupMeans, [1–5](#), [6](#), [7–10](#)

igroupMins, [1–6](#), [7](#), [8–10](#)

igroupProds, [1–7](#), [8](#), [9](#), [10](#)

igroupRanges, [1–8](#), [9](#), [10](#)

igroupSums, [1–9](#), [10](#)

Rigroup, [1](#)