

# Package: PlinkMatrix (via r-universe)

May 29, 2026

**Title** DelayedArray interface for plink bed files

**Version** 1.0.0

**Description** This package provides a DelayedArray interface for plink bed files. There is support for interfacing to plink genotype data via RangedSummarizedExperiment. Example data from the GEUVADIS project ([internationalgenome.org](http://internationalgenome.org)) are used for demonstration.

**Depends** R (>= 4.1.0), methods, Rcpp, DelayedArray, SummarizedExperiment

**Suggests** knitr, BiocStyle, testthat, rmarkdown, irlba, GenomeInfoDb

**Imports** BiocFileCache, GenomicRanges, IRanges

**License** MIT + file LICENSE

**VignetteBuilder** knitr

**biocViews** Infrastructure, Genetics

**Encoding** UTF-8

**URL** <https://github.com/vjcitn/PlinkMatrix>

**BugReports** <https://github.com/vjcitn/PlinkMatrix/issues>

**RoxygenNote** 7.3.3

**LinkingTo** Rcpp

**Config/pak/sysreqs** libicu-dev libssl-dev zlib1g-dev

**Repository** <https://bioc-release.r-universe.dev>

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dim,PlinkSeed-method    *Method: dim for delayed plink*

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### Description

Method: dim for delayed plink

### Usage

```
## S4 method for signature 'PlinkSeed'
dim(x)
```

### Arguments

x                    PlinkSeed instance

### Value

2-vector

### Examples

```
methods(class="PlinkSeed")
```

---

dimnames,PlinkSeed-method

*Method: dimnames for delayed plink*

---

### Description

Method: dimnames for delayed plink

### Usage

```
## S4 method for signature 'PlinkSeed'  
dimnames(x)
```

### Arguments

x                   PlinkSeed instance

### Value

list of dimnames

---

example\_GRanges

*sample GRanges coordinated with example\_PlinkMatrix*

---

### Description

sample GRanges coordinated with example\_PlinkMatrix

### Usage

```
data("example_GRanges", package="PlinkMatrix")
```

### Format

GRanges

### Examples

```
data("example_GRanges", package="PlinkMatrix")  
head(example_GRanges)
```

example\_PlinkMatrix     *produce PlinkMatrix from example data*

---

**Description**

produce PlinkMatrix from example data

**Usage**

```
example_PlinkMatrix(folder = tempdir(), as_RSE = FALSE)
```

**Arguments**

folder                    a path where unzipped example data will be managed  
as\_RSE                    logical(1) if TRUE (default is FALSE) a RangedSummarizedExperiment is returned

**Value**

a SummarizedExperiment or RangedSummarizedExperiment with rowRanges calculated from SNP ids

**Examples**

```
example_PlinkMatrix()
```

---

g445samples                    *sample characteristics of 445 GEUVADIS samples*

---

**Description**

sample characteristics of 445 GEUVADIS samples

**Usage**

```
data("g445samples", package="PlinkMatrix")
```

**Format**

data.frame

**Note**

Example data are those provided with tensorqtl, see <https://github.com/broadinstitute/tensorqtl/tree/0c4db65a0cdc47f3b824ae530b89d270ef5e0096/example/data>.

**Examples**

```
data("g445samples", package="PlinkMatrix")
g445samples[seq_len(4), seq_len(4)]
```

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`get_plink_example_path`

*operate with BiocFileCache to retrieve zip file of plink example data*

---

**Description**

operate with BiocFileCache to retrieve zip file of plink example data

**Usage**

```
get_plink_example_path(ca = BiocFileCache::BiocFileCache())
```

**Arguments**

ca                    BiocFileCache instance

**Value**

character string with path to example in cache

**Examples**

```
get_plink_example_path()
```

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`getSampleData`

*Get sample metadata*

---

**Description**

Get sample metadata

**Usage**

```
getSampleData(x)
```

**Arguments**

x                    DelayedArray instance

**Value**

data.frame

**Examples**

```
tst <- example_PlinkMatrix()
head(getSampleData(tst))
```

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getVariantData	<i>Get variant metadata</i>
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**Description**

Get variant metadata

**Usage**

```
getVariantData(x)
```

**Arguments**

x                      DelayedArray instance

**Value**

data.frame

**Examples**

```
tst <- example_PlinkMatrix()
dim(getVariantData(tst))
```

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plid2gr	<i>produce GRanges from variant notation for plink example from geuvadis</i>
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---

**Description**

produce GRanges from variant notation for plink example from geuvadis

**Usage**

```
plid2gr(x, sepused = "_")
```

**Arguments**

x                      character vector of variant names  
 sepused                single character, defaults to "\_"

**Value**

GRanges instance

**Examples**

```
plid2gr("chr18_80259028_AG_A_b38")
```

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PlinkMatrix	<i>Constructor for DelayedArray</i>
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**Description**

Constructor for DelayedArray

**Usage**

```
PlinkMatrix(filepath)
```

**Arguments**

filepath            path to plink bed, bim, fam resources without suffixes

**Value**

An instance of PlinkMatrix

**Examples**

```
PlinkMatrix
```

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PlinkMatrix-pkg	<i>Delayed interface to Plink genotype files</i>
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**Description**

This package includes C++ code to interface to Plink files. Large-scale genotype calls can be managed in a RangedSummarized Experiment instance.

**Value**

side effects

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read_bed_subset	<i>read subset for use in delayed matrix approach</i>
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**Description**

read subset for use in delayed matrix approach

**Usage**

```
read_bed_subset(prefix, snp_indices, sample_indices, n_total_samples = NULL)
```

**Arguments**

prefix	character path to bed resources and file prefix
snp_indices	integer vector of snp indices
sample_indices	integer vector of sample indices
n_total_samples	optional

**Value**

matrix

**Examples**

```
read_bed_subset
```

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show,PlinkSeed-method	<i>present seed concisely</i>
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**Description**

present seed concisely

**Usage**

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

**Arguments**

object	instance of PlinkSeed
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**Value**

side effect of cat

**Examples**

```
ex <- example_PlinkMatrix()  
ex
```

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