

Today is December 8, 2012.

```
> rm(list = ls())
> library("trioClasses")

> data(ped)
> data(geno)
> pedigreeInfo <- within(ped.df, {
  F <- as.character(fid)
  M <- as.character(mid)
  O <- as.character(id)
})
> pedigreeInfo <- subset(pedigreeInfo, !is.na(F) & !is.na(M) &
  !is.na(O))
> tg.ped <- Pedigree(pedigreeInfo = pedigreeInfo)
> tg.ped
```

This pedigree object contains 1812 complete trios.
For access to the data frame use the `trios()` accessor function.

```
> id <- offspringNames(tg.ped)
> fid <- fatherNames(tg.ped)
> mid <- motherNames(tg.ped)
> names(fid) <- names(mid) <- id
> c(length(unique(id)), length(unique(fid)), length(unique(mid)))
```

```
[1] 1812 1812 1812
```

1 TrioSet

```
> head(geno.mat[, 1:6])
```

	snp1	snp2	snp3	snp4	snp5	snp6
578_01	2	2	0	2	2	1
578_02	1	0	1	0	2	2
578_03	0	2	2	0	2	2
1539_01	2	0	2	2	2	0
1539_02	1	1	2	0	1	0
1539_03	1	0	2	2	0	2

```
> geno.trio <- genoMat(tg.ped, geno.mat)
> (tg.ped.comp <- completeTrios(tg.ped, colnames(geno.trio)))
```

This pedigree object contains 33 complete trios.
For access to the data frame use the `trios()` accessor function.

```
> (ts <- TrioSet(tg.ped.comp, geno = geno.trio))
```

```
TrioSet (storageMode: lockedEnvironment)
assayData: 10 features, 33 samples
  element names: geno
```

```

protocolData: none
phenoData: none
featureData
  featureNames: 1 2 ... 10 (10 total)
  fvarLabels: position chromosome isSnp
  fvarMetadata: labelDescription
experimentData: use 'experimentData(object)'
Annotation:
genome: hg19

```

```
> assayDataElement(ts, "geno")
```

```
, , F
```

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	1	2	2	2	0	0	0	0	0	2	2	0	0	2	0	2	2	0	2	2	0	1	2	2	2
2	1	0	0	0	1	2	0	1	1	1	2	2	1	2	1	0	1	1	1	1	1	2	1	1	0
3	0	1	2	0	1	2	1	0	0	2	2	1	2	1	2	0	0	2	2	0	2	1	1	1	0
4	1	0	2	2	2	0	1	1	1	0	2	2	2	1	0	2	0	2	1	1	1	1	2	0	2
5	2	1	2	1	2	1	2	1	0	0	0	2	2	2	2	0	1	1	2	0	0	0	0	0	2
6	1	1	1	0	0	2	2	1	2	2	2	0	2	0	1	1	1	0	0	2	0	1	0	0	1
7	2	0	2	2	1	2	0	1	2	2	2	1	2	2	0	0	1	1	0	0	0	0	2	2	2
8	0	2	2	1	1	2	1	1	1	2	2	0	0	1	0	2	2	1	2	0	2	1	2	2	1
9	1	2	2	2	1	2	1	1	2	1	2	1	1	1	1	0	2	1	2	2	1	1	0	1	0
10	1	2	1	0	2	2	1	2	2	2	0	2	2	2	2	0	1	0	1	1	0	1	2	1	0
	26	27	28	29	30	31	32	33																	
1	0	1	0	0	0	2	1	2	2																
2	1	0	0	0	0	1	0	2	0																
3	1	1	1	2	1	1	1	1	1																
4	0	0	1	0	0	2	1	0																	
5	1	2	2	2	2	1	0	2																	
6	2	0	2	1	1	2	0	0																	
7	1	1	1	0	1	1	2	2																	
8	0	2	1	2	1	0	0	0																	
9	1	0	2	1	0	0	0	0																	
10	1	0	0	2	0	2	2	2	1																

```
, , M
```

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	0	1	2	1	2	1	2	1	1	2	0	0	2	0	0	1	0	0	1	0	0	1	1	0	1
2	0	1	1	2	2	2	2	2	0	1	2	1	2	2	2	1	0	0	0	0	1	2	0	0	0
3	1	2	0	0	2	1	2	2	1	1	1	0	1	1	2	2	0	1	1	1	0	2	1	0	2
4	1	2	0	2	0	0	2	1	1	2	2	0	0	2	1	2	1	2	2	2	1	0	1	1	2
5	2	0	0	2	2	0	1	1	1	2	2	2	2	0	1	0	2	0	0	0	0	2	1	1	2
6	0	1	2	0	0	2	1	0	1	0	2	1	1	1	1	0	2	1	0	1	0	2	0	0	2
7	0	1	1	0	2	0	2	2	2	2	2	0	1	1	0	0	0	1	0	2	1	1	0	1	1
8	1	1	1	1	2	2	2	2	2	1	2	1	2	0	1	0	0	0	0	2	2	0	1	0	1
9	0	0	2	2	1	1	1	0	0	0	2	2	2	2	0	1	0	2	2	2	1	0	1	1	0
10	2	0	1	2	2	2	2	2	1	1	2	0	1	2	0	0	1	2	1	1	1	1	2	0	1
	26	27	28	29	30	31	32	33																	
1	0	2	2	2	2	0	2	0																	

```

2  1  1  1  2  1  2  2  0
3  1  1  2  0  0  0  2  0
4  1  1  2  2  2  2  2  0
5  0  2  2  2  0  0  2  1
6  2  2  2  1  0  0  0  0
7  2  1  0  1  2  2  2  1
8  0  1  0  2  2  0  2  1
9  2  2  1  0  1  1  2  0
10 0  2  1  1  0  1  0  2

```

```
, , 0
```

```

      1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
1  2 1 2 0 1 1 2 1 2  0 2  0 0 2  1 0 0 0 2  2 1  2  1 0  2
2  2 0 2 0 2 1 0 2 0  2 0  0 2  2 2 2 0  1 1  1  2 0  2  2  2
3  2 0 1 2 2 2 1 2 2  2 1  1 0 0 0  1 2  2 0  2 0  2  1 0  1
4  0 2 2 0 0 1 0 1 2  0 0  2 2  2 2  1 1  2 1  0 2  1 0  2  2
5  0 2 0 2 0 2 0 1 0  1 1  1 0 0 2  1 0  1 2  2 1  0 2  1  2
6  1 2 1 1 2 0 0 1 2  1 2  2 2  1 0  0 0  1 2  0 2  0 2  2  1
7  1 1 2 2 0 0 0 2 0  0 1  1 2  0 2  1 2  2 0  1 1  0 2  1  0
8  2 2 1 2 0 1 2 2 0  0 2  1 0  1 2  0 1  0 0  0 1  2 2  1  0
9  2 0 2 1 1 1 2 1 2  0 2  2 2  1 0  0 0  0 1  2 0  1 2  2  1
10 2 1 1 0 1 0 2 1 2  0 1  0 1  2  1  1  2  0 0  0 2  1  2  1  2
      26 27 28 29 30 31 32 33
1  2  2  2  1  1  2  0  0
2  1  1  0  2  1  2  0  1
3  1  2  2  1  2  1  2  0
4  0  1  1  2  1  1  0  2
5  1  2  1  1  1  2  0  2
6  2  1  1  1  0  1  0  0
7  2  2  1  1  1  1  1  1
8  2  0  1  0  2  0  1  1
9  1  0  1  2  0  0  0  1
10 0  2  1  0  0  1  1  1

```

```
> ts <- TrioSet(tg.ped.comp)
```