

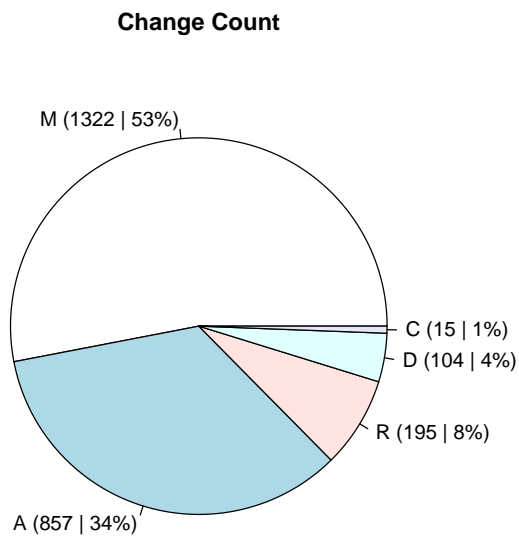
Wissensmanagement
Projektarbeit
Analyse eines GitHub-Repositorys mit Neo4j

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1 Diagramme und Analysen

1.1 Change-Count



1.2 Change-Count-by-Author

```
> csv <- read.table(file.path("../..result/dukecon/r/Change-Count-by-Author-2.csv"), sep=",",
> a <- as.data.frame(table(csv$Author))
> a$Var1
```

```
[1] Alexander Schwartz annam002 Aschemann, Gerd Christofer Dutz
[5] Dirk Mahler DukeCon Jenkins Falk Sippach Gerd Aschemann
[9] Michal Harakal Niko K  bler Niko Ko  bler PitTorf
[13] steffchep Stephanie Peters stephaniep
15 Levels: Alexander Schwartz annam002 Aschemann, Gerd ... stephaniep
```

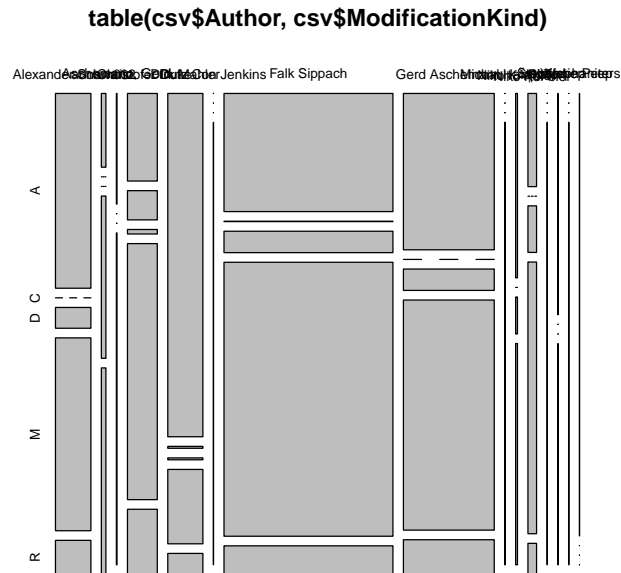
```
> b <- which(table(csv$Author) > 50, arr.ind = TRUE, useNames = TRUE)
> b
```

```
dim1
Alexander Schwartz 1
Christofer Dutz 4
Dirk Mahler 5
Falk Sippach 7
Gerd Aschemann 8
Niko Ko  bler 11
```

```
> c <- table(csv$Author) > 50
> c
```

```
Alexander Schwartz annam002 Aschemann, Gerd Christofer Dutz
TRUE FALSE FALSE TRUE
Dirk Mahler DukeCon Jenkins Falk Sippach Gerd Aschemann
TRUE FALSE TRUE TRUE
Michal Harakal Niko K  bler Niko Ko  bler PitTorf
FALSE FALSE TRUE FALSE
steffchep Stephanie Peters stephaniep
FALSE FALSE FALSE
```

```
> d <- csv[table(csv$Author) > 50, ]
> plot(table(csv$Author, csv$ModificationKind))
```



1.3 Change-Count-by-Date

```
> csv <- read.table(file.path("../result/dukecon/r/Change-Count-by-Date-2.csv"), sep=","
> # Create Line Chart
>
> # convert factor to numeric for convenience
> csv$ModificationKind <- as.numeric(csv$ModificationKind)
> ntrees <- max(csv$ModificationKind)
> # get the range for the x and y axis
> xrange <- range(as.yearmon(csv$CommitDate))
> yrange <- range(csv$ChangeCount)
> # set up the plot
> plot(xrange, yrange, type="b", xlab="CommitDate", ylab="ChangeCount" )
> colors <- rainbow(ntrees)
> linetype <- c(1:ntrees)
> plotchar <- seq(18,18+ntrees,1)
> # add lines
> for (i in 1:ntrees) {
+   x <- subset(csv, ModificationKind==i)
+   lines(as.yearmon(x$CommitDate), x$ChangeCount, type="b", lwd=1.5, lty=linetype[i], col=colors[i])
+ }
```

