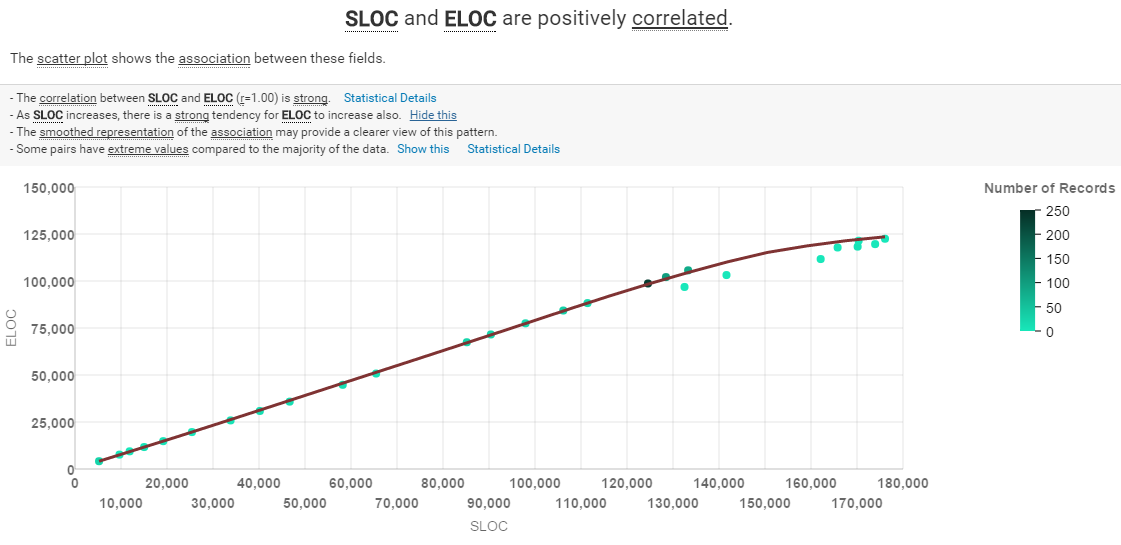
Maisqual Projects/Ant Analysis

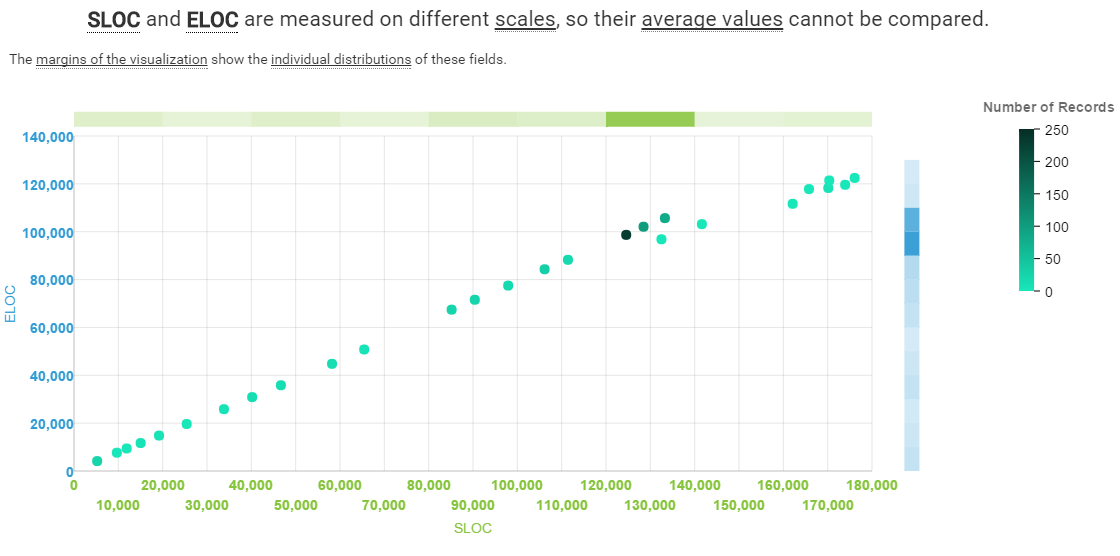
1) Does more source lines means there is more effective lines?

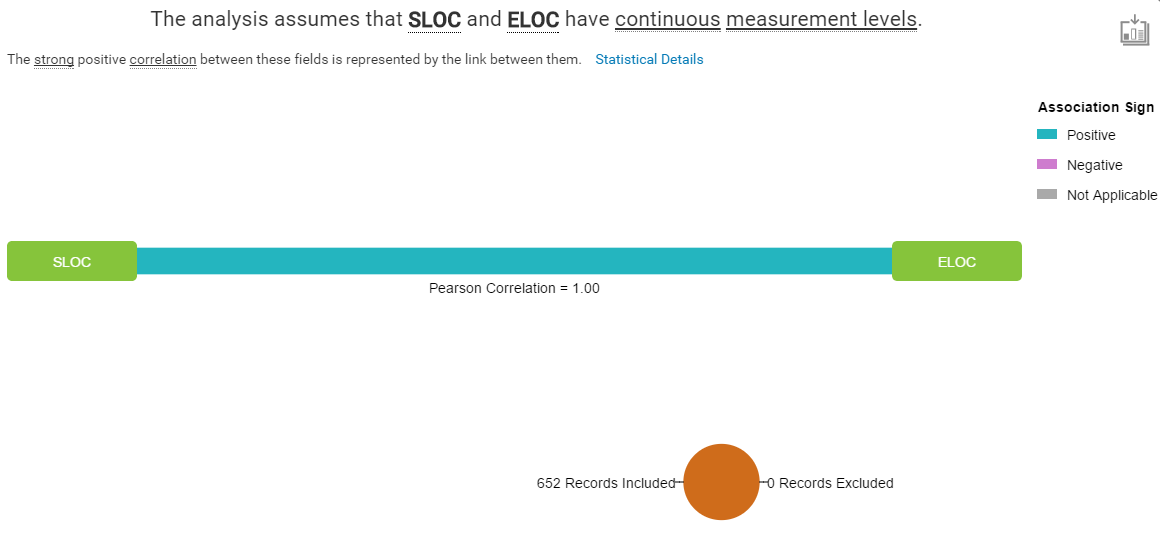
SLOC----source lines of code

ELOC----effective lines of code



From the regression graph we can see that source lines of code and effective lines of code is positively correlated





Looking at the Pearson Correlation which is 1, it indicate that there is a strong positive correlation between them. We can conclude that when there is more source lines of code, there is more effective lines of code.

2) How effective is the communication between users and developers?

COM\_USR\_SUBJ\_3M----the number of different subjects

(eg. A question and its response) that have

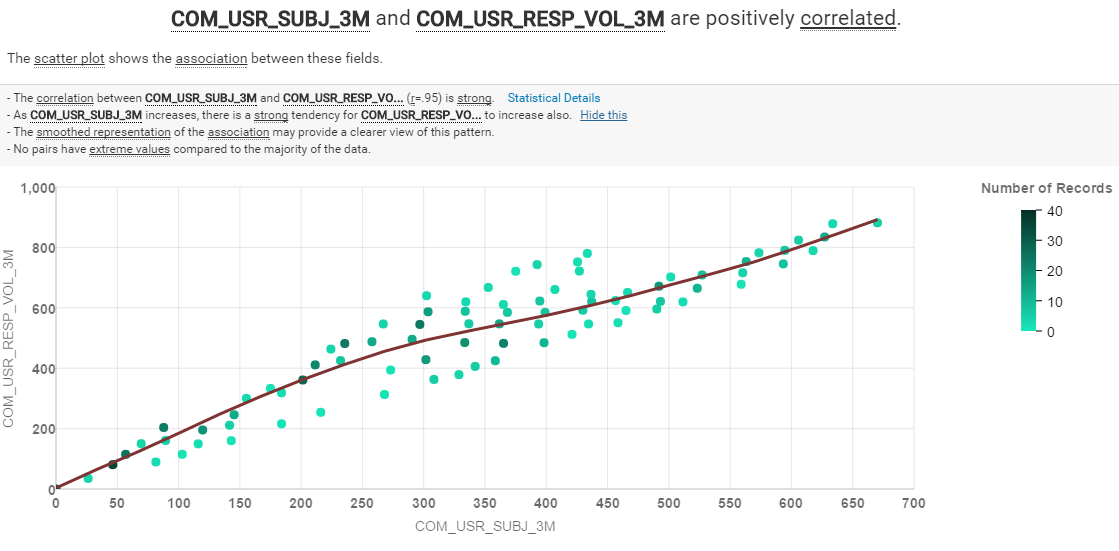
been posted on the mailing list in the last 3

months

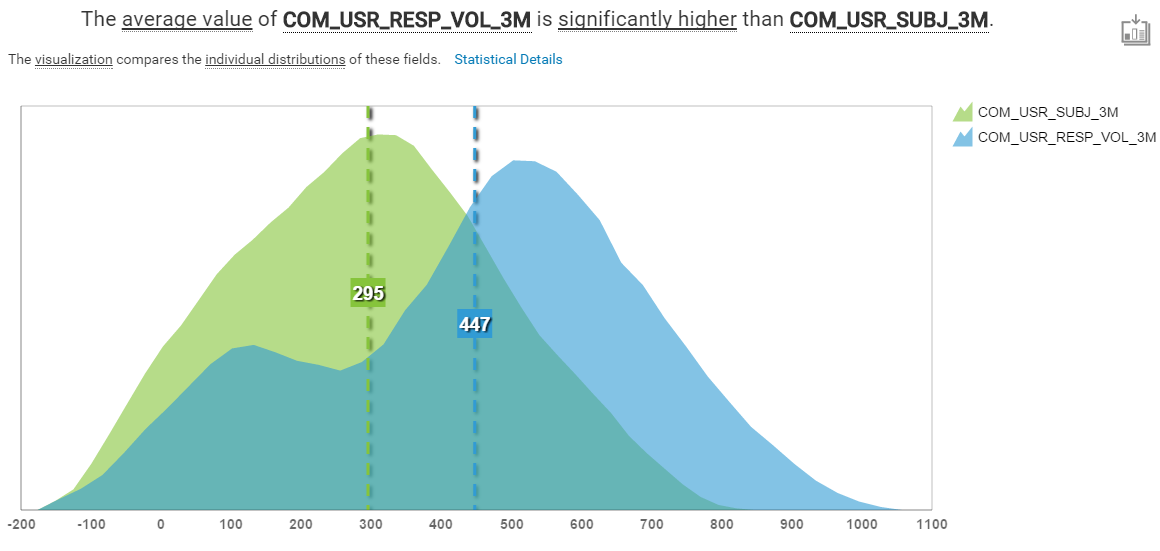
COM\_USR\_RESP\_VOL\_3M ----the total number of replies to requests

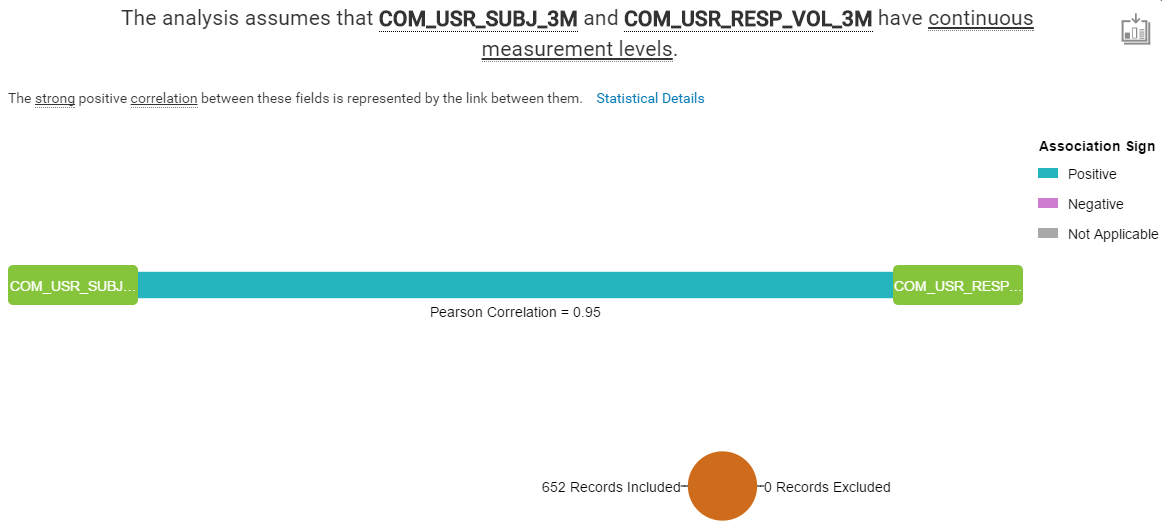
on the user mailing list in the last 3

months



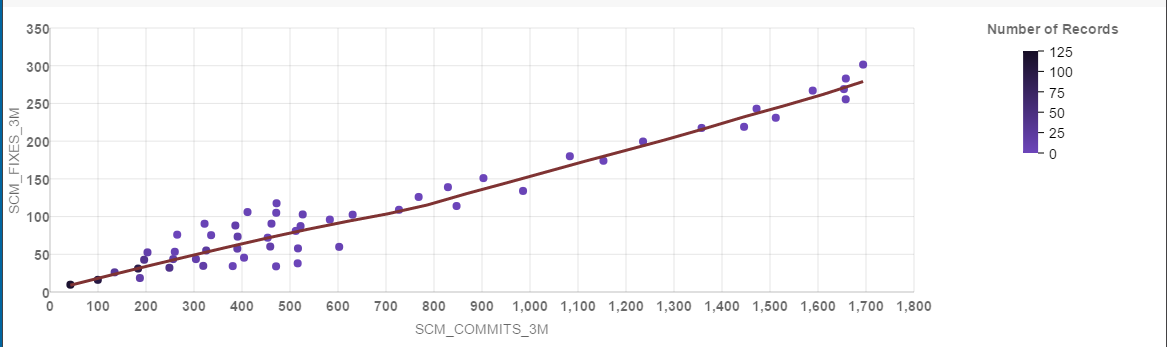
From the regression graph we can see that the number of different subjects that have been posted on the mailing list in the last 3 months and the total number of replies to requests on the user mailing list in the last 3 months is positively correlated.





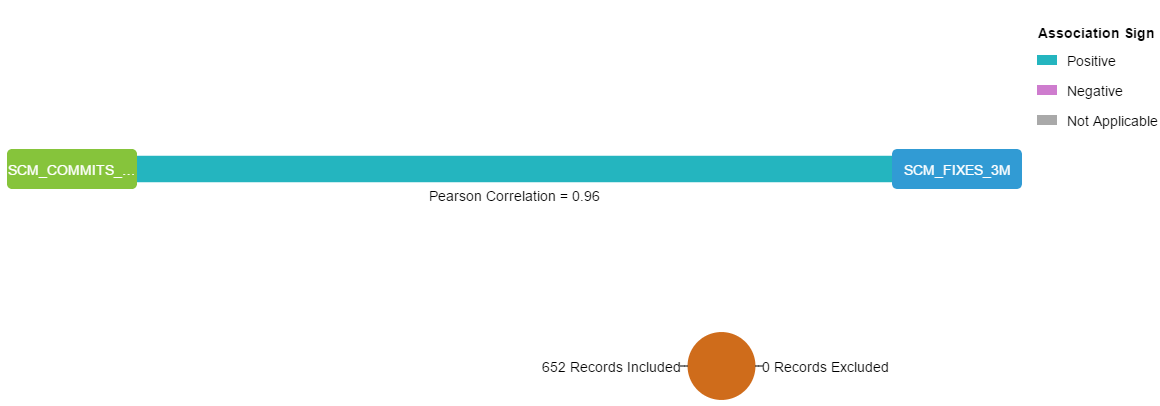
Looking at the Pearson Correlation which is 0.95, it indicate that there is a strong positive correlation between them. We can conclude that when there is more number of different subjects that have been posted on the mailing list, there is more total number of replies to requests on the user mailing list. Which suggest that there is an effective communication between users and developers.

HO: The more the number of developers involved, the more bugs fixed and increase of number of commits.

SCM\_COMMITS\_3M and SCM\_FIXES\_3M are positively correlated

The correlation between SCM\_COMMITS\_3M and SCM\_FIXES\_3M (r=0.96) is strong. As SCM\_COMMITS\_3M increases, there is a strong tendency for SCM\_FIXES\_3M to increase also.

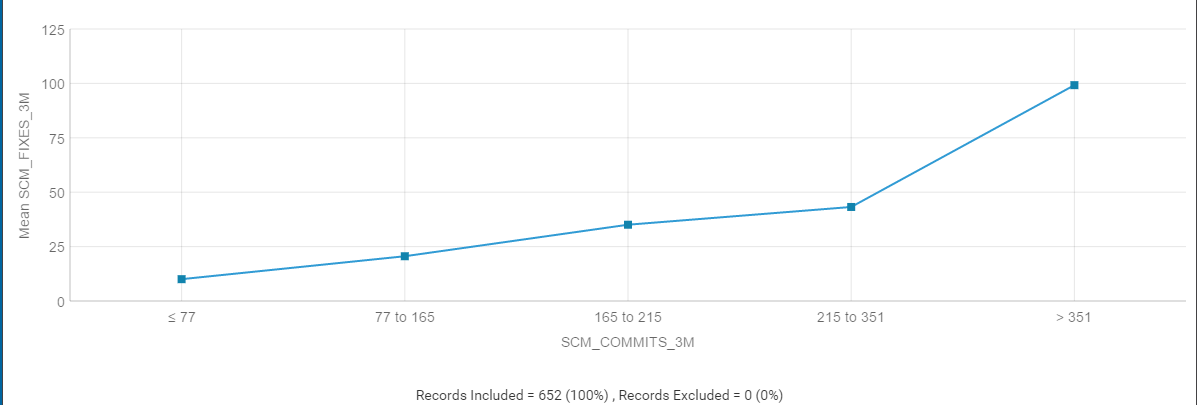
The analysis assumes that SCM\_COMMITS\_3M and SCM\_FIXES\_3M have continuous measurement levels

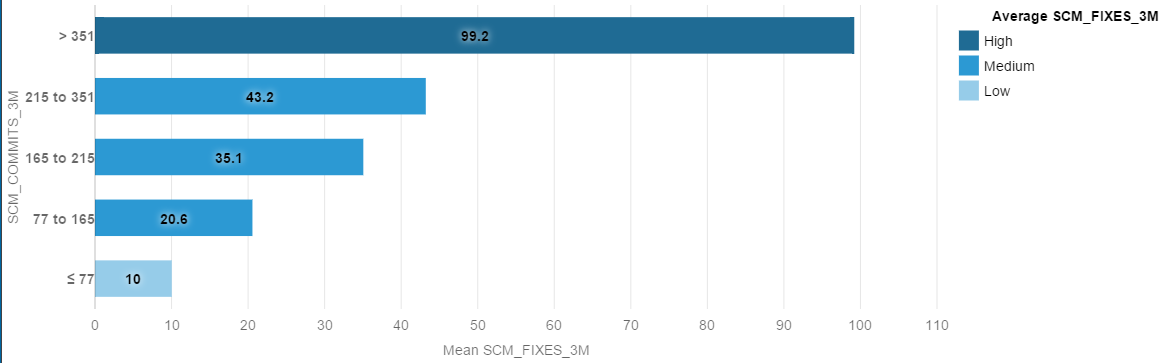


The strong positive correlation between these fields is represented by the link between them.

What influences SCM\_FIXES\_3M?

SCM\_FIXES\_3M is a continuous target, so a linear regression (ANOVA) based approached is used.

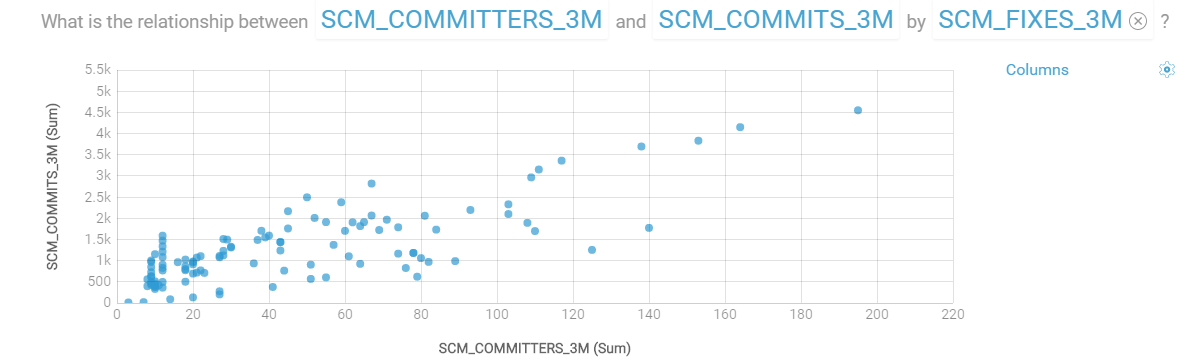
There is a significant strong main effect of SCM\_COMMITS\_3M on SCM\_FIXES\_3M. Reason being, as the bugs are being fixed, it will then commits to the repository.

SCM\_COMMITS\_3M drives SCM\_FIXES\_3M( Predictive strength: 53%)

Each bar represents the SCM\_FIXES\_3M average at a level of SCM\_COMMITS\_3M.

Levels with high or low SCM\_FIXES\_3M averages have more influences.

Grouping the levels into high, medium, or low averages may reveal additional insights about the impact of SCM\_COMMITS\_3M on SCM\_FIXES\_3M.

This line graph shows that the relationship between committers and commits is rather linear proving that with more contributions from committers, more commits are happening.