|  |  |
| --- | --- |
| *Org. & social metrics ID* | Metrics calculation |
| *NoD* | *NoD= sum {Number of developers who modified the code}* |
| *TAP* |  |
| *LCP* |  |
| *DC* | Where:  *i is a node in graph g* 𝐶𝐷(𝑛∗) 𝑀𝑎𝑥 𝑣𝑎𝑙𝑢𝑒 𝑜𝑓 𝐷𝑒𝑔𝑟𝑒𝑒 𝐶𝑒𝑛𝑡𝑟𝑎𝑙𝑖𝑡𝑦 𝑖𝑛 𝑡ℎ𝑒 𝑁𝑒𝑡𝑤𝑜𝑟𝑘  𝐶𝐷(𝑖) 𝑣𝑎𝑙𝑢𝑒 𝑜𝑓 𝐷𝑒𝑔𝑟𝑒𝑒 𝐶𝑒𝑛𝑡𝑟𝑎𝑙𝑖𝑡𝑦 𝑖𝑛 𝑛𝑜𝑑𝑒 𝑖 𝑖𝑛 𝑔𝑟𝑎𝑝ℎ  *N is number of nodes in graph g* |
| *BC* | *Where:  x is a node in graph g  n is number of nodes in graph g*  *𝐶𝐵(𝑥) 𝑣𝑎𝑙𝑢𝑒 𝑜𝑓 𝐵𝑒𝑡𝑤𝑒𝑒𝑛𝑠 𝐶𝑒𝑛𝑡𝑟𝑎𝑙𝑖𝑡𝑦 𝑖𝑛 𝑛𝑜𝑑𝑒 𝑥 𝑖𝑛 𝑔𝑟𝑎𝑝ℎ* |
| *CC* | *Where:   x is a node in graph g  n is number of nodes in graph g  𝐶𝐶(𝑥) 𝑣𝑎𝑙𝑢𝑒 𝑜𝑓 𝐶𝑙𝑜𝑠𝑛𝑒𝑠𝑠 𝐶𝑒𝑛𝑡𝑟𝑎𝑙𝑖𝑡𝑦 𝑖𝑛 𝑛𝑜𝑑𝑒 𝑥 𝑖𝑛 𝑔𝑟𝑎𝑝ℎ* |
| *TZ* |  |
| *CD* |  |
| *RCD* |  |
| *SD* |  |
| *RSD* |  |
| *ND* | *ND= Number of density in a network* |
| *NT* |  |
| *LCT* | *Where n is the total number of tags in a project.* |
| *NC* |  |
| *NAC* | *Where n is the total number of communities in a project.* |
| *NCZ* | *Where n is the total number of time zones in a project* |
| *NAZ* | *Where n is the total number of time zones in a project.* |
| *NCC* | *Where n is the total number of communities in a project.* |
| *BFN* |  |
| *FN* |  |
| *TFN* | *This metrics calculated by truck factor algorithm* |
| *TFC* | *This metrics calculated by truck factor algorithm* |