

Figure 1: A Venn diagram of the amount of issues divided over the design decision types, across all domains. (RQ1)

| Domain | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
|--------|------|------|-----------|------|-----------|-----------|-----|----------|
| CM     | 0.69 | 0.44 |           | 0.74 | 0.41      | 0.66      |     | 1.03     |
| DSP    | 1.49 | 0.79 |           | 1.73 | 2.23      |           |     | 1.00     |
| DC     | 0.95 | 1.89 |           | 0.72 | 0.58      | 1.48      |     | 0.97     |
| SOAM   | 1.08 | 1.10 |           | 0.90 | 0.68      |           |     | 1.00     |
| SDT    | 0.46 | 0.78 |           | 0.41 | 0.27      |           |     | 1.02     |
| WD     | 0.75 | 1.33 |           | 0.57 | 0.32      |           |     | 0.99     |

Table 1: Chi-squared test results on decision types per domain, with intersected decision types. (RQ1) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| Domain | Exis | Exec | Prop | Non-Arch |
|--------|------|------|------|----------|
| CM     | 0.66 | 0.44 | 0.69 | 1.03     |
| DSP    | 1.57 | 0.79 | 1.79 |          |
| DC     | 0.91 | 1.89 | 0.72 | 0.97     |
| SOAM   |      | 1.10 | 0.87 | 1.00     |
| SDT    | 0.44 | 0.79 | 0.40 | 1.02     |
| WD     | 0.70 | 1.33 | 0.53 | 0.99     |

Table 2: Chi-squared test results on decision types per domain, with simplified decision types. (RQ1) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| Domains | Bug  | New Feature | Task | Epic |
|---------|------|-------------|------|------|
| CM      | 1.15 | 0.82        | 1.05 | 0.18 |
| DSP     | 1.12 | 1.29        | 0.82 | 0.51 |
| DC      | 1.15 | 0.92        | 0.77 | 4.55 |
| SOAM    | 0.66 |             | 1.23 | 0.66 |
| SDT     |      | 0.50        | 1.18 | 1.91 |
| WD      | 0.82 | 0.81        | 1.23 | 0.35 |

| Domains | Independent | Child | Parent |
|---------|-------------|-------|--------|
| CM      | 1.06        | 0.45  | 0.48   |
| DSP     | 0.89        | 1.97  | 2.06   |
| DC      | 1.08        | 0.18  | 0.33   |
| SOAM    |             |       |        |
| SDT     | 1.05        | 0.50  | 0.60   |
| WD      | 1.01        | 1.08  | 0.63   |

Table 3: Chi-squared test results on the hierarchy characteristic per domain. (RQ2) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Table 4: Chi-squared test results on the issue\_type characteristic per domain. (RQ2) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| Domains | Won'T Fix | Duplicate | Won'T Do | Fixed | Done |
|---------|-----------|-----------|----------|-------|------|
| CM      | 2.49      | 1.40      | 1.51     | 1.17  | 0.07 |
| DSP     | 1.37      | 1.31      | 0.72     | 1.10  | 0.56 |
| DC      | 0.38      | 1.25      |          | 1.24  | 0.38 |
| SOAM    | 0.74      | 0.44      | 1.23     | 0.95  | 1.33 |
| SDT     | 1.31      | 0.76      | 0.71     | 0.68  | 1.94 |
| WD      | 0.72      | 0.31      |          | 0.45  | 2.80 |

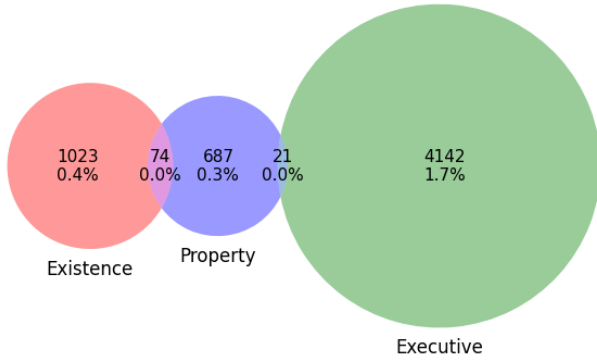
Table 5: Chi-squared test results on the resolution characteristic per domain. (RQ2) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| Domains | Closed | Open | Resolved | In Progress |
|---------|--------|------|----------|-------------|
| CM      | 1.14   |      | 0.67     | 0.60        |
| DSP     | 0.63   | 1.99 | 1.52     | 1.73        |
| DC      | 1.28   | 0.32 | 0.56     |             |
| SOAM    | 0.81   | 0.74 | 1.55     | 0.66        |
| SDT     | 1.35   | 0.63 | 0.31     | 0.58        |
| WD      | 1.15   | 0.54 | 0.81     | 0.43        |

Table 6: Chi-squared test results on the status characteristic per domain. (RQ2) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Content Management - Total Issues: 243860

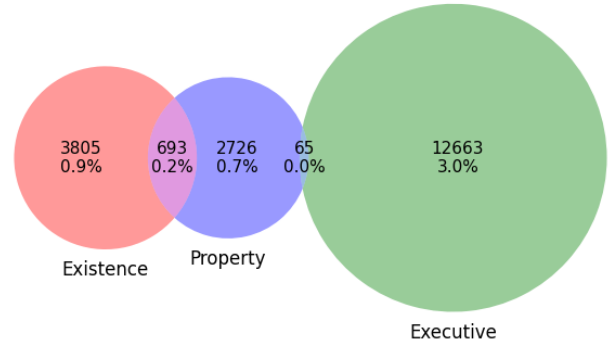
Non-architectural issues: 237913 (97.56%)



(a) Content Management

Data Storage & Processing - Total Issues: 416260

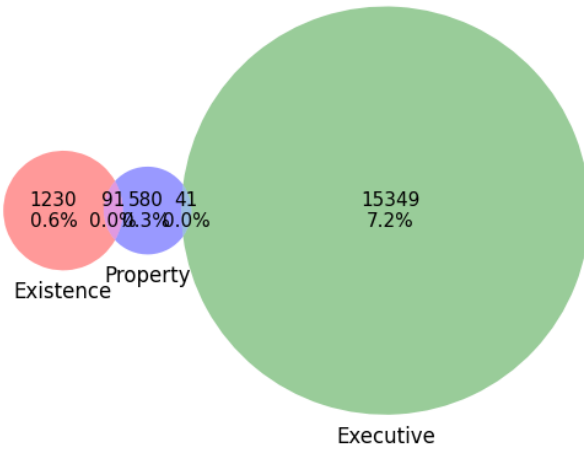
Non-architectural issues: 396308 (95.21%)



(b) Data Storage & Processing

DevOps And Cloud - Total Issues: 211759

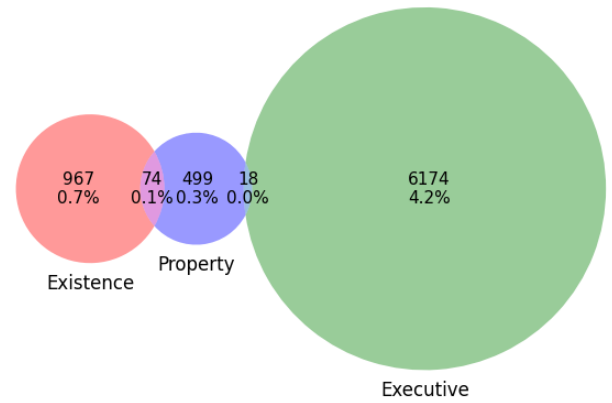
Non-architectural issues: 194468 (91.83%)



(c) DevOps and Cloud

Soa And Middlewares - Total Issues: 145933

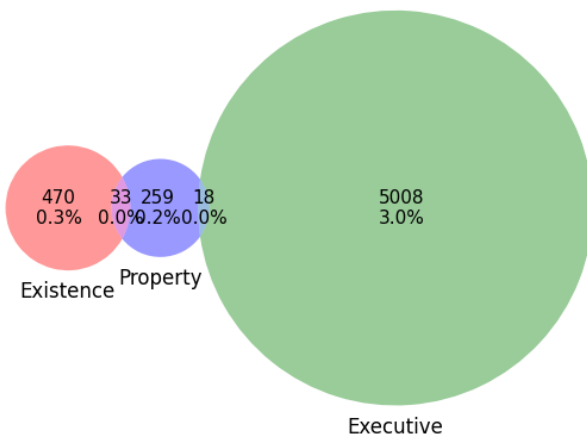
Non-architectural issues: 138201 (94.70%)



(d) SOA and Middlewares

Software Development Tools - Total Issues: 166588

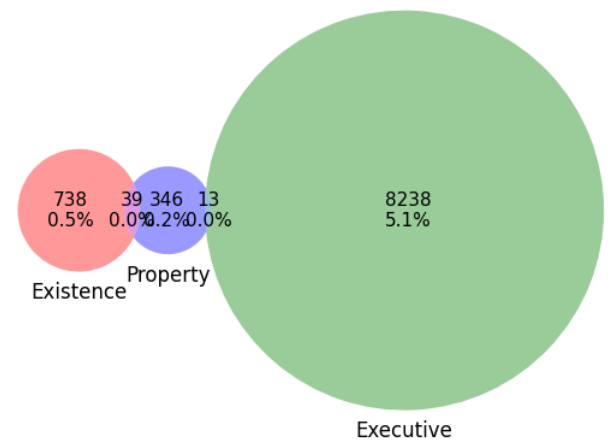
Non-architectural issues: 160800 (96.53%)



(e) Software Development Tools

Web Development - Total Issues: 161384

Non-architectural issues: 152010 (94.19%)



(f) Web Development

Figure 2: Venn diagrams of the amount of issues divided over the design decision types, per domain (RQ1).

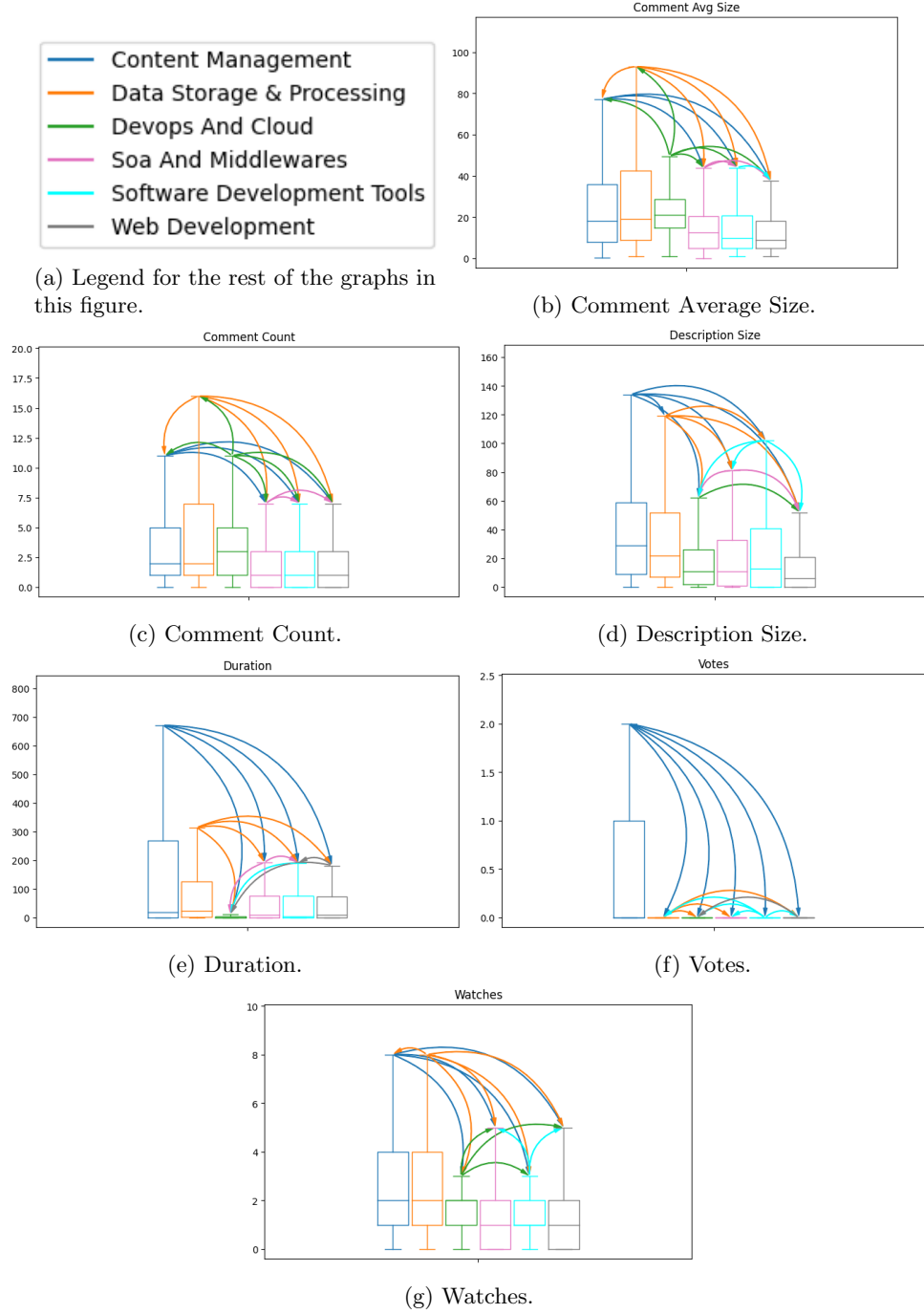
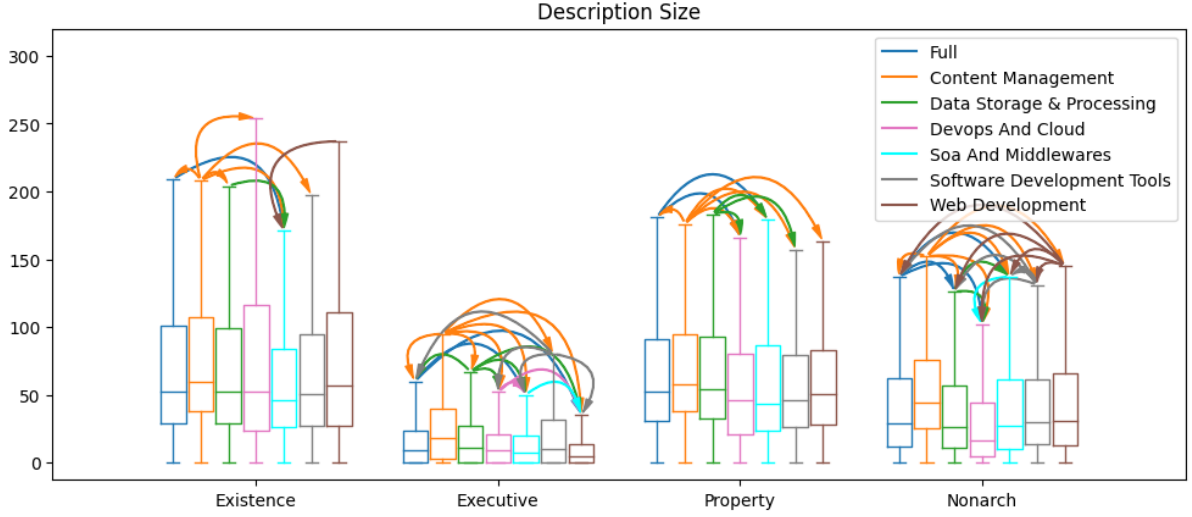


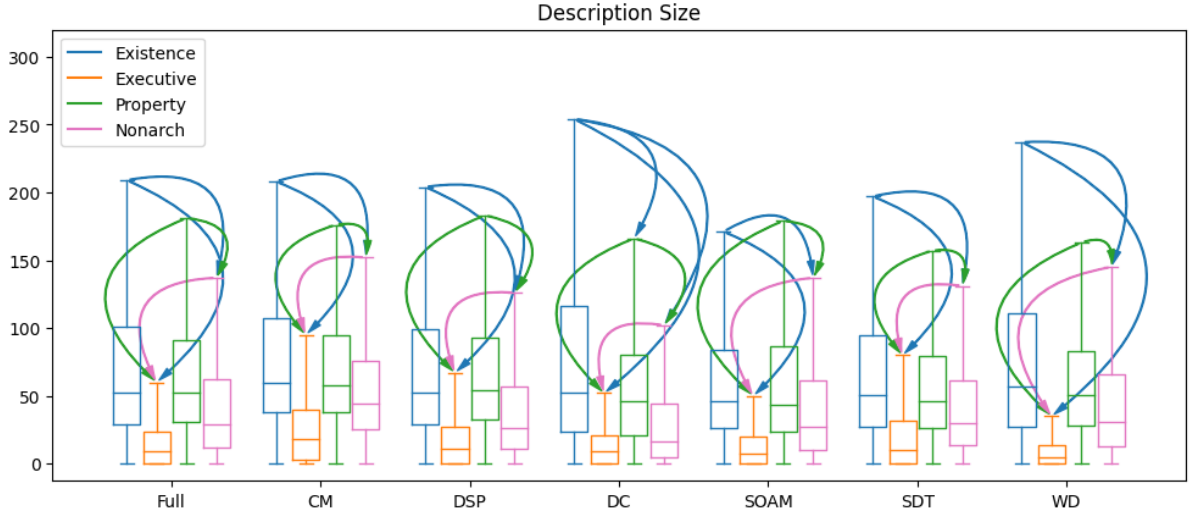
Figure 3: Box plots of the continuous data issue characteristics. Arrows indicate significantly larger means according to the Mann-Whitney test. (RQ2)

| All Domains | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
|-------------|------|------|-----------|------|-----------|-----------|-----|----------|
| Independent | 0.87 |      |           | 0.94 | 0.84      |           |     | 1.00     |
| Child       | 1.96 | 0.84 |           | 1.11 | 1.90      | 0.35      |     |          |
| Parent      | 5.90 | 1.92 |           | 5.11 | 8.62      | 5.52      |     | 0.91     |
| CM          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Independent | 0.94 | 0.99 |           | 0.97 | 0.90      |           |     | 1.00     |
| Child       | 3.05 | 1.48 |           | 1.69 | 3.31      |           |     | 0.98     |
| Parent      | 7.83 | 3.01 |           | 6.48 | 20.05     |           |     | 0.91     |
| DSP         | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Independent | 0.79 | 0.98 |           | 0.93 | 0.83      | 0.89      |     | 1.00     |
| Child       | 1.83 | 0.86 |           |      | 1.39      |           |     | 1.00     |
| Parent      | 5.41 | 2.76 |           | 4.74 | 6.77      | 9.68      |     | 0.86     |
| DC          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Independent | 0.96 | 1.04 |           |      |           |           |     | 1.00     |
| Parent      | 5.61 | 0.72 |           | 2.08 |           |           |     |          |
| Child       |      | 0.20 |           | 0.40 |           |           |     | 1.07     |
| SOAM        | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Independent | 0.96 | 0.96 |           | 1.03 |           |           |     | 1.00     |
| Parent      | 3.55 | 1.80 |           |      | 3.79      |           |     | 0.94     |
| Child       |      | 1.41 |           | 0.30 |           |           |     | 0.98     |
| SDT         | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Parent      | 4.28 | 1.58 |           | 5.31 | 6.41      |           |     | 0.96     |
| Independent |      | 1.01 |           |      |           |           |     |          |
| Child       |      | 0.69 |           | 0.40 |           |           |     | 1.01     |
| WD          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Independent | 0.95 | 0.96 |           |      |           |           |     | 1.00     |
| Child       |      | 1.59 |           | 0.49 |           |           |     | 0.97     |
| Parent      | 4.51 | 1.67 |           | 5.72 |           |           |     | 0.93     |

Table 7: Chi-squared test results for the relation between the hierarchy issue characteristic and simple decision type contained in the issue, RQ3. [intersected](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

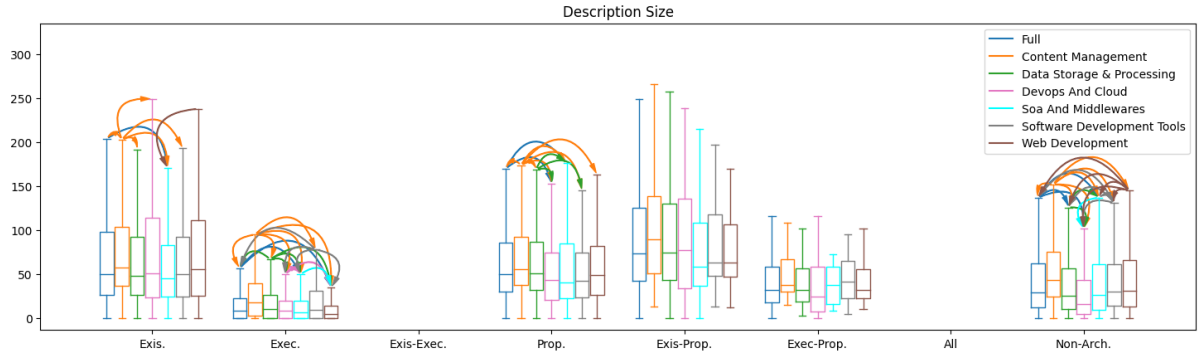


(a) Grouped by decision type first and subgrouped by domain.

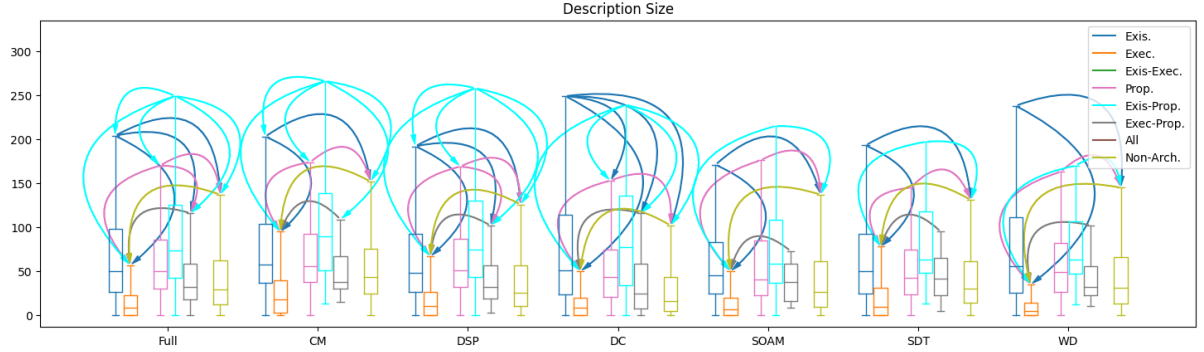


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 4: Mann-Whitney test on the relations between description size, domain, and decision type contained in the issue, simple decision view.



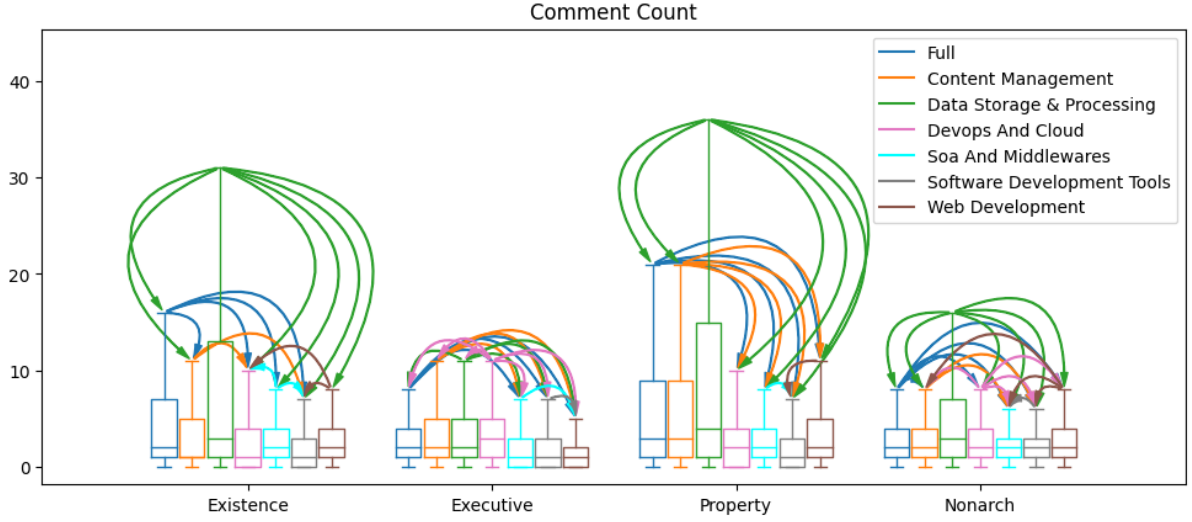
(a) Grouped by decision type first and subgrouped by domain.



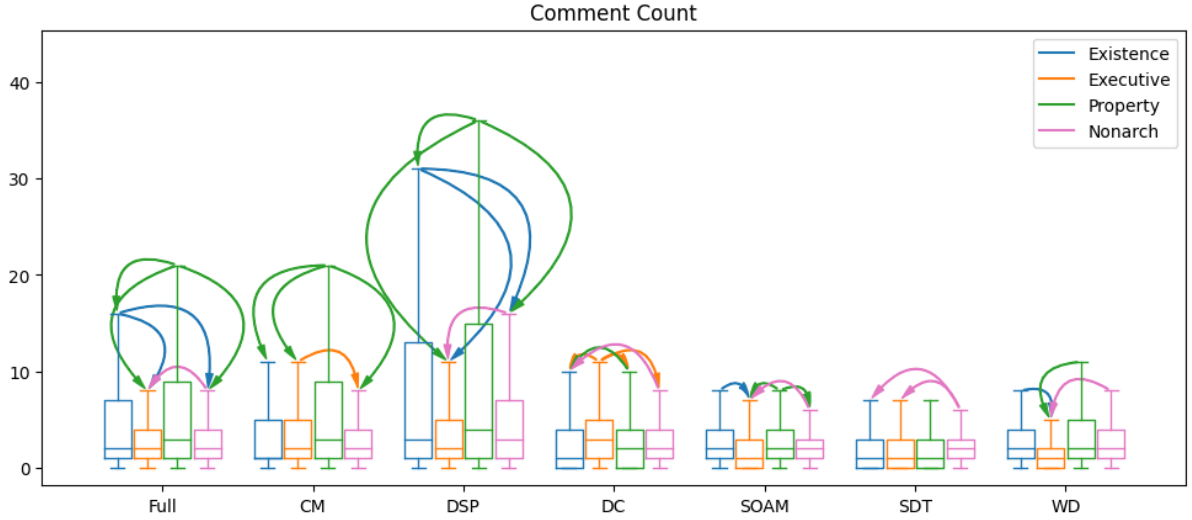
(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 5: Mann-Whitney test on the relations between description size, domain, and decision type contained in the issue, intersected decision view.



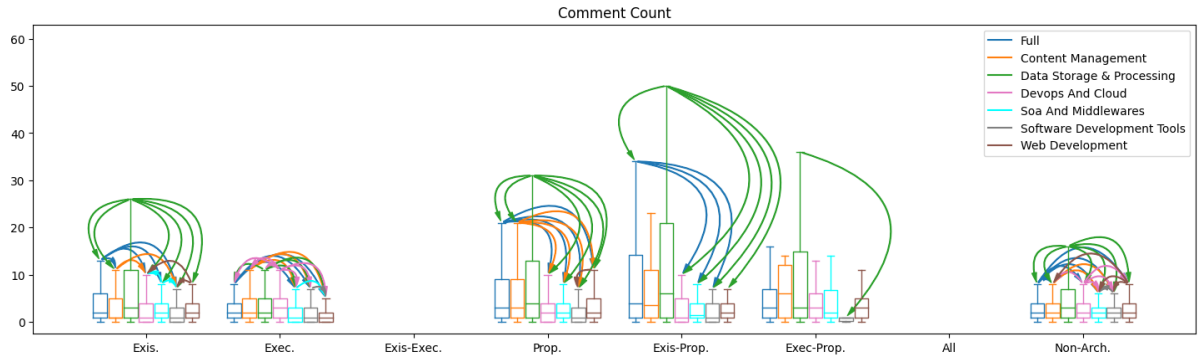


(a) Grouped by decision type first and subgrouped by domain.

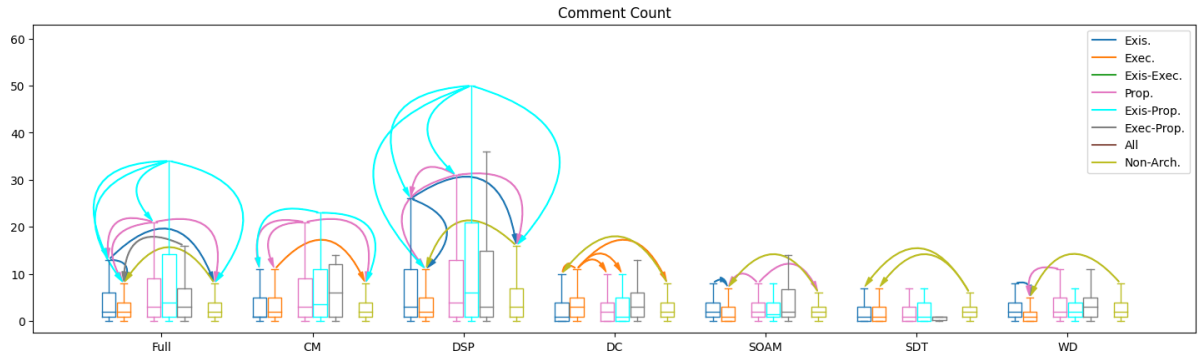


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 6: Mann-Whitney test on the relations between comment count, domain, and decision type contained in the issue, simple decision view.

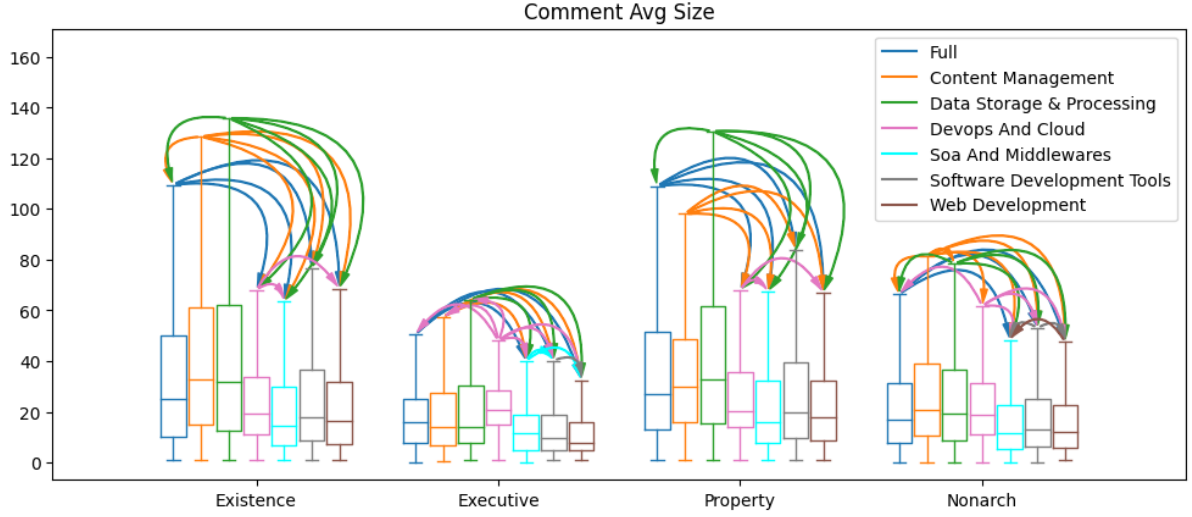


(a) Grouped by decision type first and subgrouped by domain.

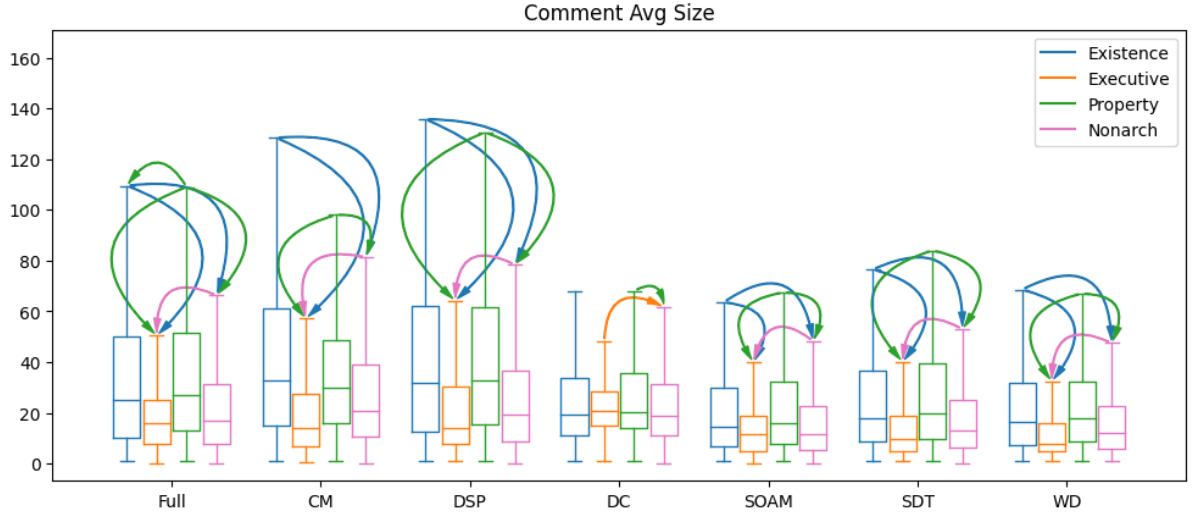


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 7: Mann-Whitney test on the relations between comment count, domain, and decision type contained in the issue, intersected decision view.

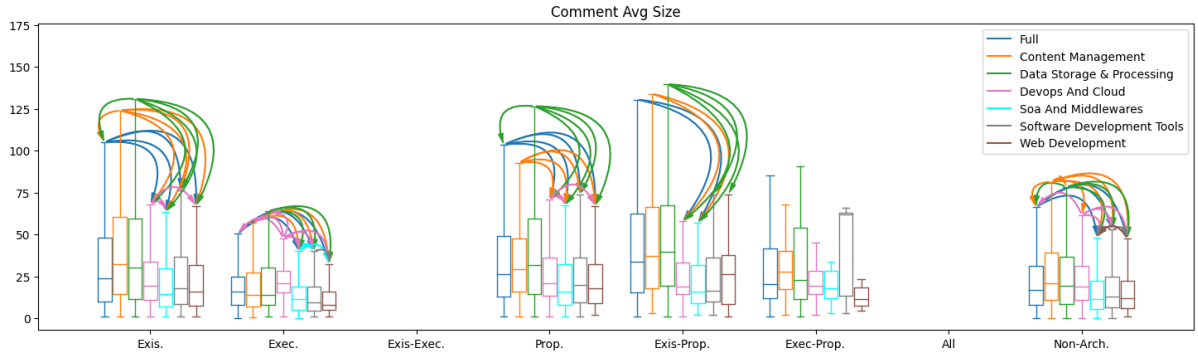


(a) Grouped by decision type first and subgrouped by domain.

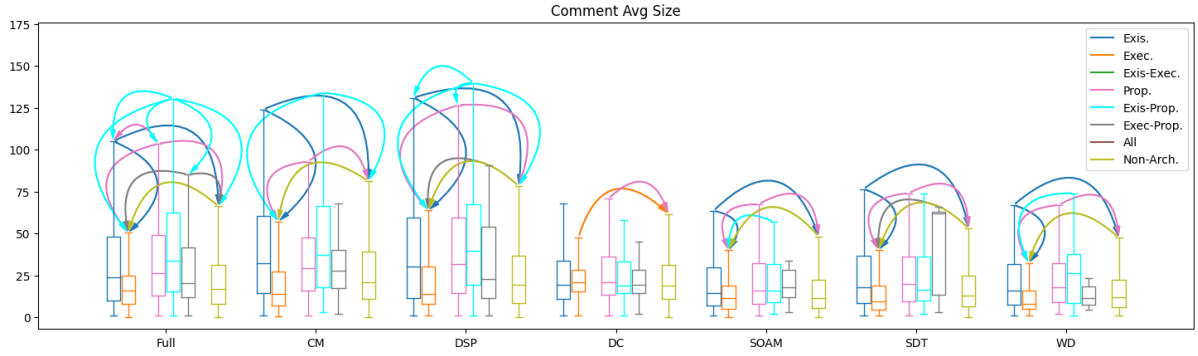


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 8: Mann-Whitney test on the relations between average comment size, domain, and decision type contained in the issue, simple decision view.

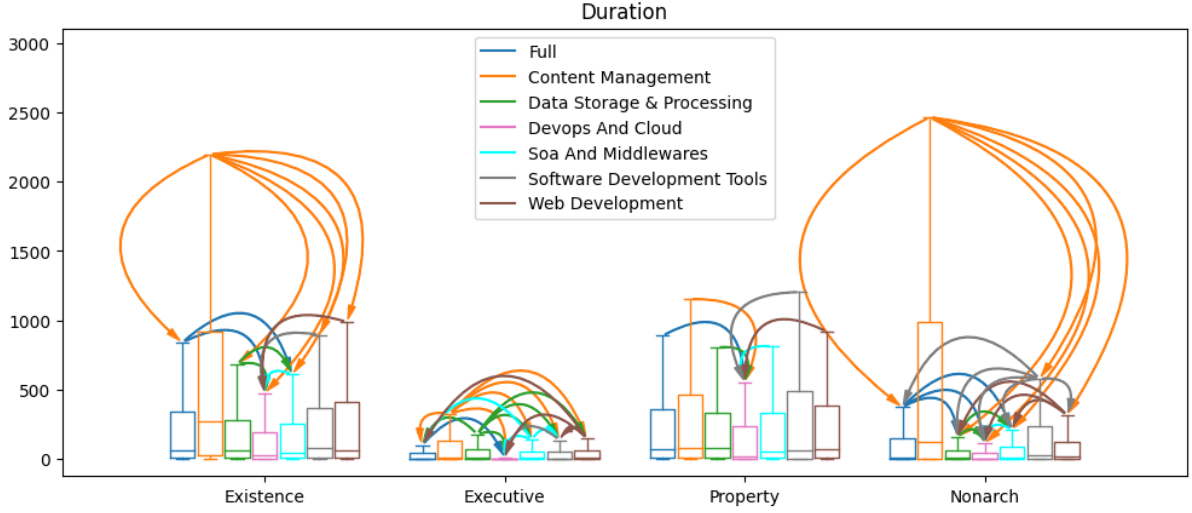


(a) Grouped by decision type first and subgrouped by domain.

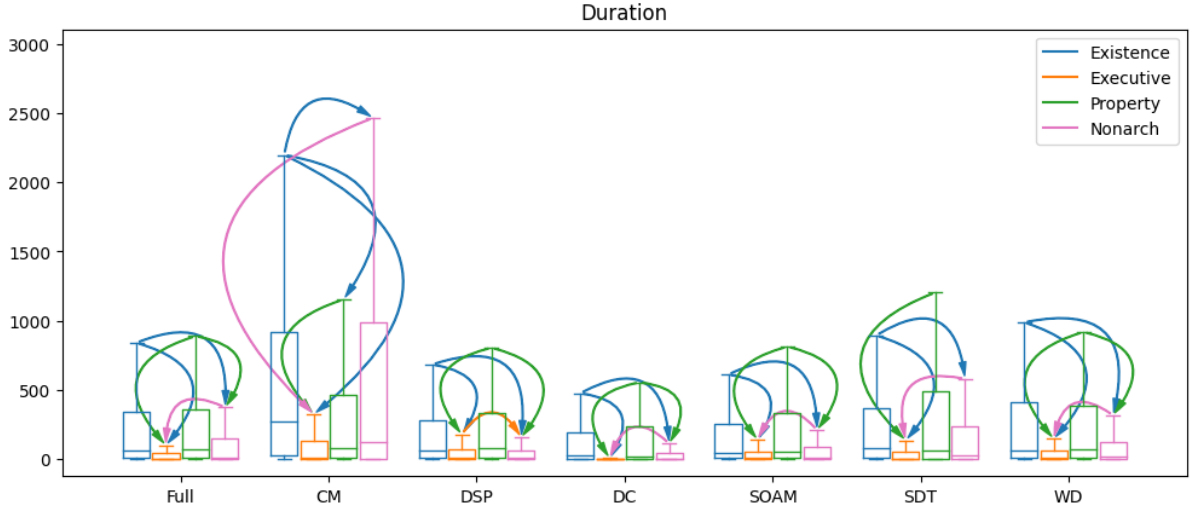


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 9: Mann-Whitney test on the relations between average comment size, domain, and decision type contained in the issue, intersected decision view.

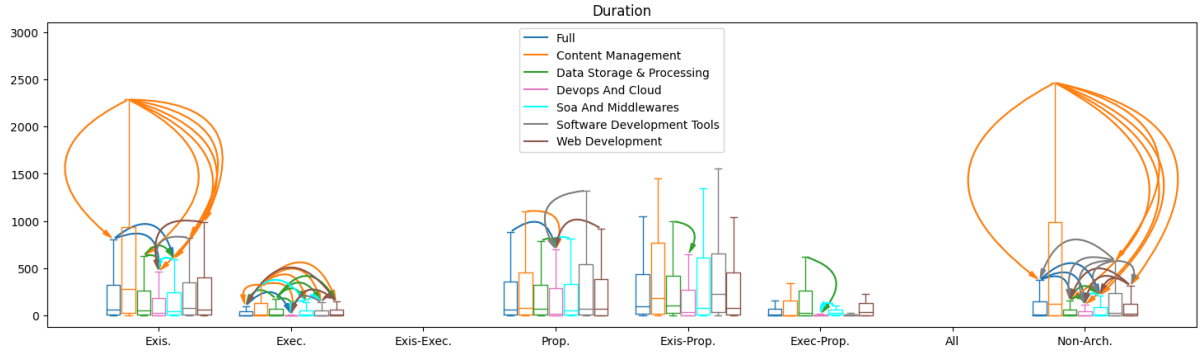


(a) Grouped by decision type first and subgrouped by domain.

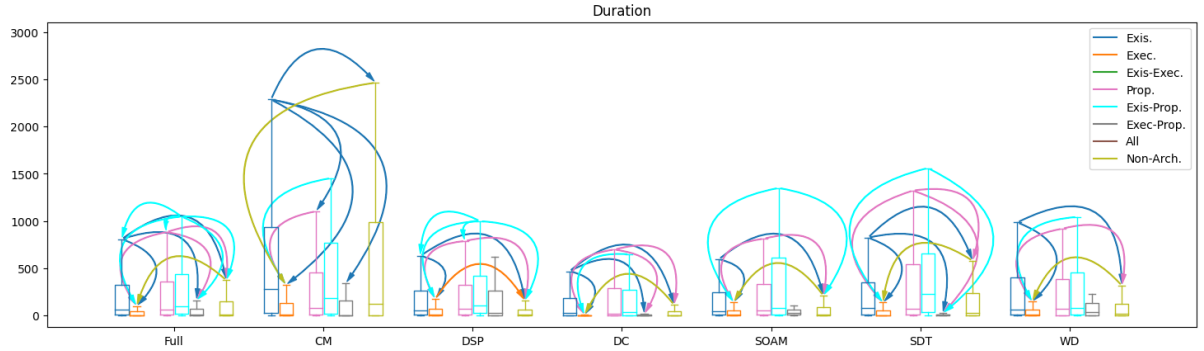


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 10: Mann-Whitney test on the relations between duration, domain, and decision type contained in the issue, simple decision view.

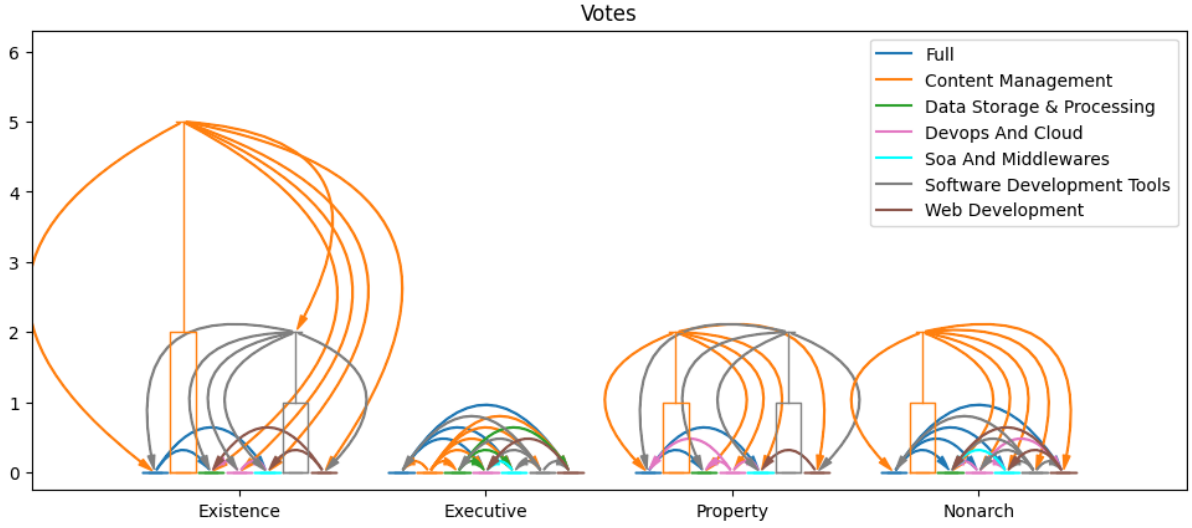


(a) Grouped by decision type first and subgrouped by domain.

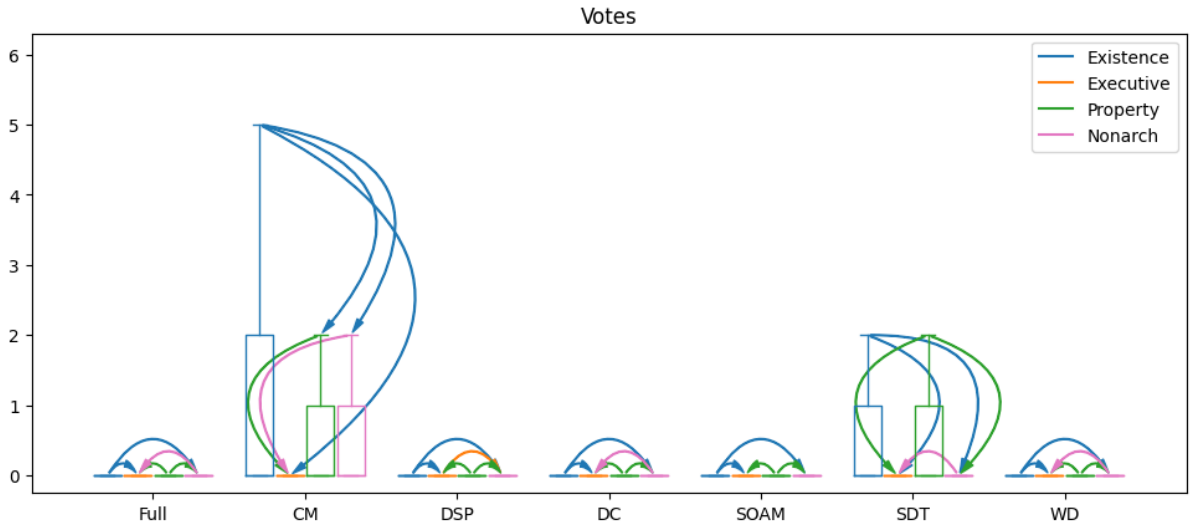


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 11: Mann-Whitney test on the relations between duration, domain, and decision type contained in the issue, intersected decision view.

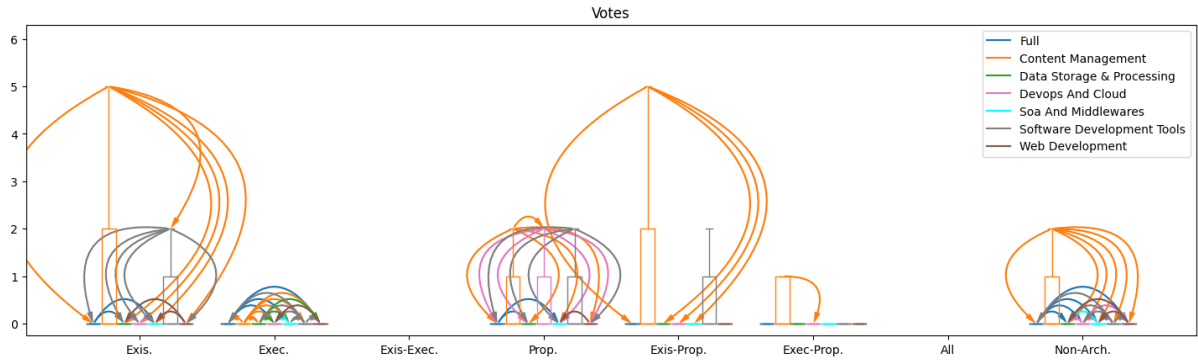


(a) Grouped by decision type first and subgrouped by domain.

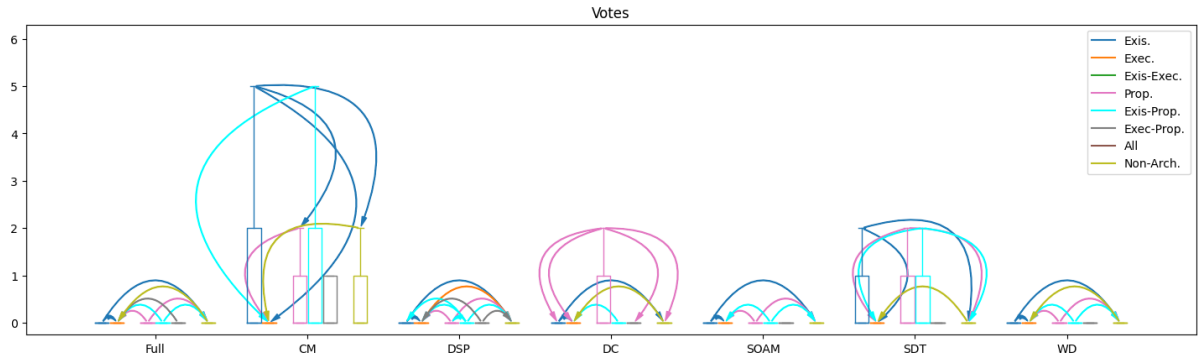


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 12: Mann-Whitney test on the relations between votes, domain, and decision type contained in the issue, simple decision view.



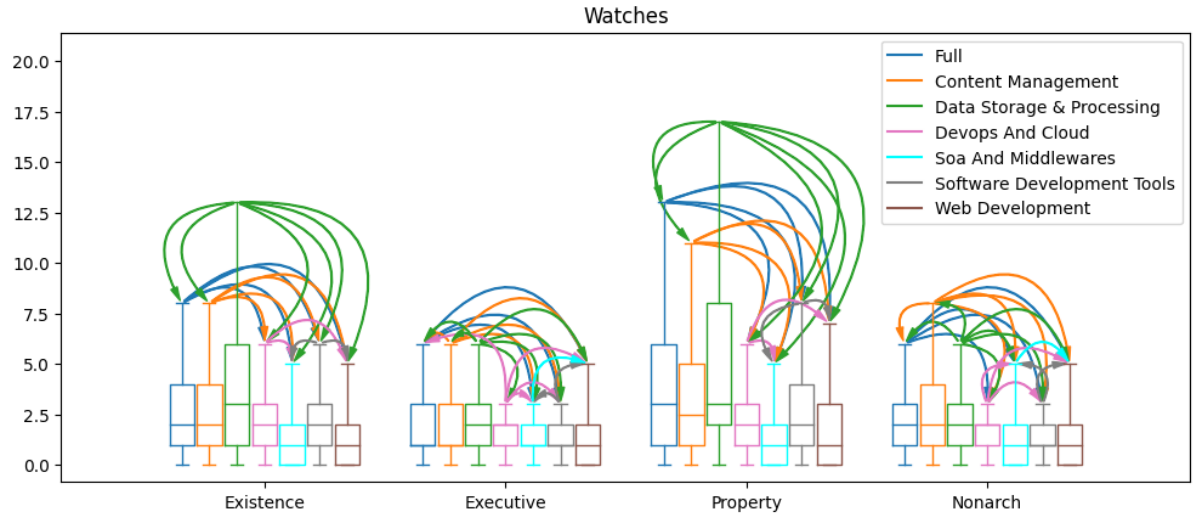
(a) Grouped by decision type first and subgrouped by domain.



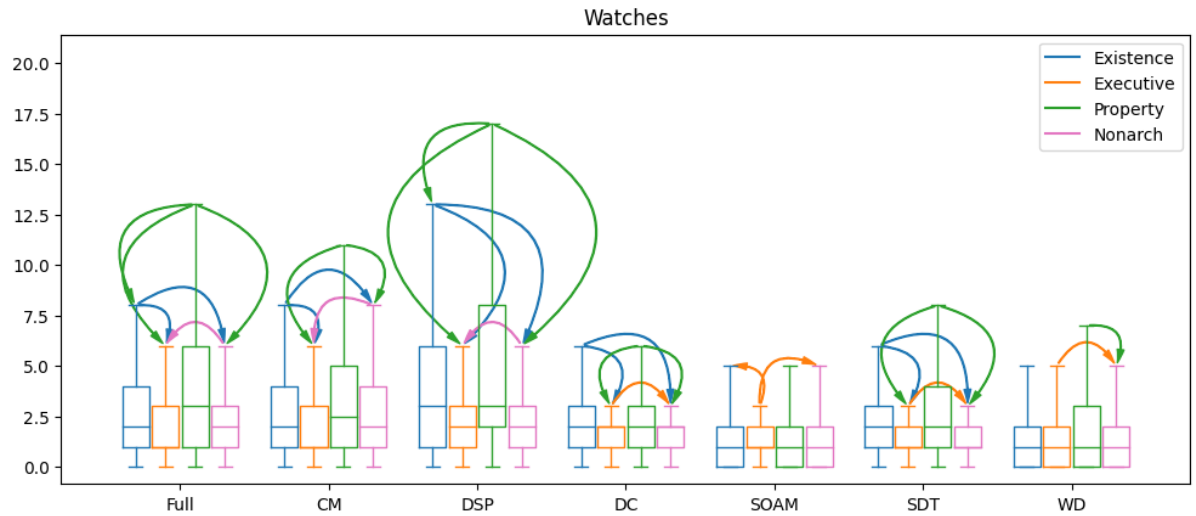
(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 13: Mann-Whitney test on the relations between votes, domain, and decision type contained in the issue, intersected decision view.



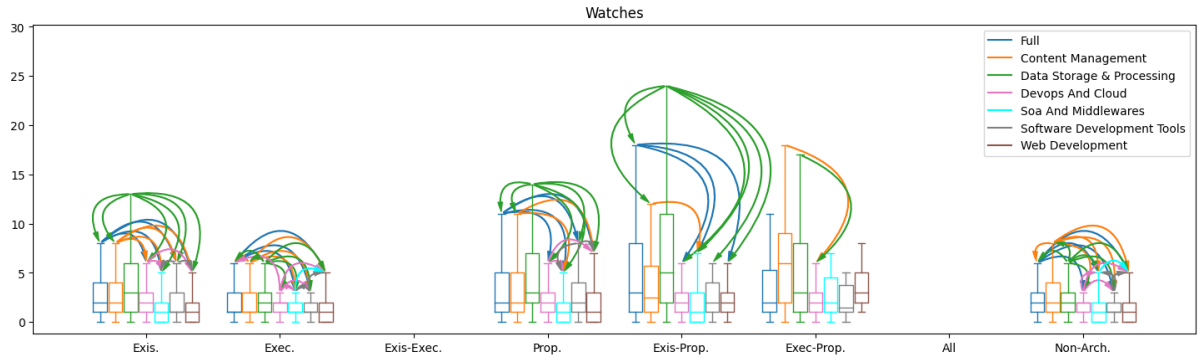


(a) Grouped by decision type first and subgrouped by domain.

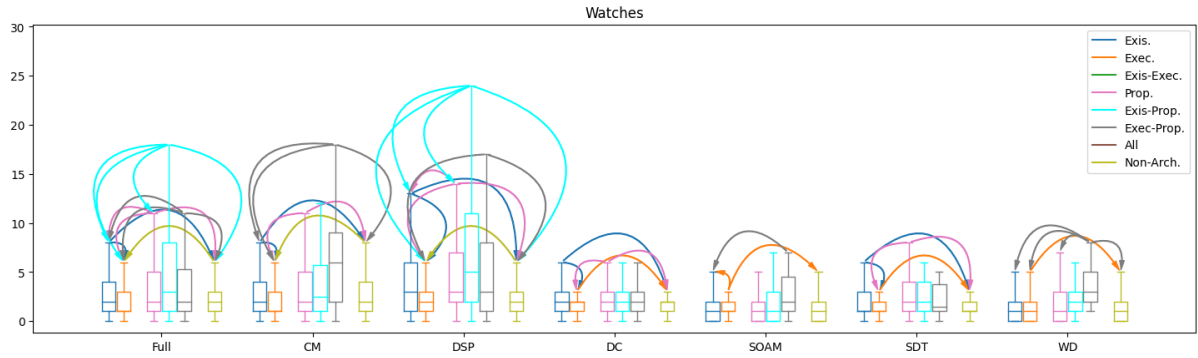


(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 14: Mann-Whitney test on the relations between watches, domain, and decision type contained in the issue, simple decision view.



(a) Grouped by decision type first and subgrouped by domain.



(b) Grouped by domain first and subgrouped by decision type. (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

Figure 15: Mann-Whitney test on the relations between watches, domain, and decision type contained in the issue, intersected decision view.

| All Domains | Exis | Exec | Prop | Non-Arch |
|-------------|------|------|------|----------|
| Independent | 0.87 |      | 0.93 | 1.00     |
| Child       | 1.95 | 0.83 | 1.21 |          |
| Parent      | 6.16 | 1.92 | 5.65 | 0.90     |
| CM          | Exis | Exec | Prop | Non-Arch |
| Independent | 0.94 | 0.99 | 0.96 | 1.00     |
| Child       | 3.07 | 1.47 | 1.80 | 0.98     |
| Parent      | 8.60 | 2.98 | 7.54 | 0.91     |
| DSP         | Exis | Exec | Prop | Non-Arch |
| Independent | 0.80 | 0.98 | 0.91 | 1.00     |
| Child       | 1.76 | 0.86 |      | 1.00     |
| Parent      | 5.56 | 2.76 | 5.18 | 0.85     |
| DC          | Exis | Exec | Prop | Non-Arch |
| Independent | 0.97 | 1.04 | 1.02 | 1.00     |
| Parent      | 5.46 | 0.72 | 2.15 |          |
| Child       |      | 0.20 | 0.36 | 1.07     |
| SOAM        | Exis | Exec | Prop | Non-Arch |
| Independent | 0.96 | 0.96 | 1.03 | 1.00     |
| Parent      | 3.56 | 1.80 | 1.78 | 0.94     |
| Child       |      | 1.41 | 0.28 | 0.99     |
| SDT         | Exis | Exec | Prop | Non-Arch |
| Parent      | 4.41 | 1.58 | 5.11 | 0.96     |
| Independent | 0.98 | 1.01 |      |          |
| Child       |      | 0.69 | 0.41 | 1.01     |
| WD          | Exis | Exec | Prop | Non-Arch |
| Independent | 0.95 | 0.96 |      | 1.00     |
| Child       |      | 1.59 | 0.48 | 0.97     |
| Parent      | 4.55 | 1.66 | 5.49 | 0.93     |

Table 8: Chi-squared test results for the relation between the hierarchy issue characteristic and simple decision type contained in the issue, RQ3. [simple](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| All Domains | Exis | Exec | Prop | Non-Arch |
|-------------|------|------|------|----------|
| Independent | 0.87 |      | 0.93 | 1.00     |
| Child       | 1.95 | 0.83 | 1.21 |          |
| Parent      | 6.16 | 1.92 | 5.65 | 0.90     |

Table 9: Chi-squared test results for the relation between the hierarchy issue characteristic and simple decision type contained in the issue, RQ3. [simple full-domain only](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| CM          | Exis | Exec | Prop | Non-Arch |
|-------------|------|------|------|----------|
| Independent | 0.94 | 0.99 | 0.96 | 1.00     |
| Child       | 3.07 | 1.47 | 1.80 | 0.98     |
| Parent      | 8.60 | 2.98 | 7.54 | 0.91     |
| DSP         | Exis | Exec | Prop | Non-Arch |
| Independent | 0.80 | 0.98 | 0.91 | 1.00     |
| Child       | 1.76 | 0.86 |      | 1.00     |
| Parent      | 5.56 | 2.76 | 5.18 | 0.85     |
| DC          | Exis | Exec | Prop | Non-Arch |
| Independent | 0.97 | 1.04 | 1.02 | 1.00     |
| Parent      | 5.46 | 0.72 | 2.15 |          |
| Child       |      | 0.20 | 0.36 | 1.07     |
| SOAM        | Exis | Exec | Prop | Non-Arch |
| Independent | 0.96 | 0.96 | 1.03 | 1.00     |
| Parent      | 3.56 | 1.80 | 1.78 | 0.94     |
| Child       |      | 1.41 | 0.28 | 0.99     |
| SDT         | Exis | Exec | Prop | Non-Arch |
| Parent      | 4.41 | 1.58 | 5.11 | 0.96     |
| Independent | 0.98 | 1.01 |      |          |
| Child       |      | 0.69 | 0.41 | 1.01     |
| WD          | Exis | Exec | Prop | Non-Arch |
| Independent | 0.95 | 0.96 |      | 1.00     |
| Child       |      | 1.59 | 0.48 | 0.97     |
| Parent      | 4.55 | 1.66 | 5.49 | 0.93     |

Table 10: Chi-squared test results for the relation between the hierarchy issue characteristic and simple decision type contained in the issue, RQ3. [simple without full](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| All Domains | Exis  | Exec  | Exis-Exec | Prop  | Exis-Prop | Exec-Prop | All | Non-Arch |
|-------------|-------|-------|-----------|-------|-----------|-----------|-----|----------|
| Bug         | 0.21  | 0.34  |           | 0.44  | 0.16      |           |     | 1.02     |
| New Feature | 9.39  | 2.40  |           | 7.10  | 11.25     | 2.73      |     | 0.92     |
| Task        | 1.41  | 4.53  |           | 1.29  |           |           |     | 0.91     |
| Epic        | 12.94 | 2.07  |           | 7.80  | 9.74      |           |     | 0.91     |
| CM          | Exis  | Exec  | Exis-Exec | Prop  | Exis-Prop | Exec-Prop | All | Non-Arch |
| Bug         | 0.20  | 0.33  |           | 0.52  | 0.05      |           |     | 1.01     |
| New Feature | 21.40 | 3.17  |           | 11.92 | 23.68     |           |     | 0.91     |
| Task        |       | 13.18 |           | 1.90  |           |           |     | 0.80     |
| Epic        | 43.50 |       |           | 40.29 | 96.94     |           |     | 0.83     |
| DSP         | Exis  | Exec  | Exis-Exec | Prop  | Exis-Prop | Exec-Prop | All | Non-Arch |
| Task        | 1.43  | 3.95  |           |       |           |           |     | 0.92     |
| New Feature | 7.87  | 2.35  |           | 6.34  | 9.29      | 3.21      |     | 0.90     |
| Bug         | 0.24  | 0.40  |           | 0.44  | 0.18      |           |     | 1.02     |
| Epic        | 9.53  | 3.92  |           | 7.07  | 10.94     |           |     | 0.84     |
| DC          | Exis  | Exec  | Exis-Exec | Prop  | Exis-Prop | Exec-Prop | All | Non-Arch |
| Epic        | 12.35 |       |           | 6.99  | 13.93     |           |     | 0.92     |
| Task        |       | 2.73  |           |       |           |           |     | 0.96     |
| New Feature | 5.79  | 2.60  |           | 5.59  | 6.98      |           |     | 0.93     |
| Bug         | 0.12  | 0.48  |           | 0.37  | 0.04      |           |     | 1.02     |
| SOAM        | Exis  | Exec  | Exis-Exec | Prop  | Exis-Prop | Exec-Prop | All | Non-Arch |
| New Feature | 8.34  | 2.15  |           | 5.41  | 9.44      |           |     | 0.92     |
| Bug         | 0.25  | 0.23  |           | 0.47  | 0.22      |           |     | 1.03     |
| Task        |       | 3.10  |           |       |           |           |     | 0.93     |
| Epic        | 4.54  | 1.66  |           | 8.54  |           |           |     | 0.95     |
| SDT         | Exis  | Exec  | Exis-Exec | Prop  | Exis-Prop | Exec-Prop | All | Non-Arch |
| Epic        | 32.51 | 3.14  |           | 20.44 |           |           |     | 0.89     |
| Bug         | 0.13  | 0.33  |           | 0.42  | 0.26      |           |     | 1.02     |
| Task        | 2.31  | 5.73  |           | 1.96  |           |           |     | 0.90     |
| New Feature | 8.73  | 1.99  |           | 6.22  | 10.03     |           |     | 0.96     |
| WD          | Exis  | Exec  | Exis-Exec | Prop  | Exis-Prop | Exec-Prop | All | Non-Arch |
| New Feature | 10.26 | 1.95  |           | 6.15  | 11.90     |           |     | 0.94     |
| Task        | 1.34  | 4.94  |           | 1.99  |           |           |     | 0.91     |
| Bug         | 0.21  | 0.27  |           | 0.43  | 0.08      |           |     | 1.02     |
| Epic        | 6.41  | 1.79  |           |       |           |           |     | 0.97     |

Table 11: Chi-squared test results for the relation between the issue\_type issue characteristic and simple decision type contained in the issue, RQ3. [intersected](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

|             |       |      |      |          |
|-------------|-------|------|------|----------|
| All Domains | Exis  | Exec | Prop | Non-Arch |
| Bug         | 0.20  | 0.34 | 0.41 | 1.02     |
| New Feature | 9.55  | 2.39 | 7.58 | 0.91     |
| Task        | 1.36  | 4.51 | 1.20 | 0.91     |
| Epic        | 12.55 | 2.05 | 7.75 | 0.91     |

|             |       |       |       |          |
|-------------|-------|-------|-------|----------|
| CM          | Exis  | Exec  | Prop  | Non-Arch |
| Bug         | 0.19  | 0.33  | 0.49  | 1.01     |
| New Feature | 21.53 | 3.17  | 12.78 | 0.91     |
| Task        |       | 13.11 | 1.90  | 0.80     |
| Epic        | 48.08 |       | 43.63 | 0.81     |

|             |      |      |      |          |
|-------------|------|------|------|----------|
| DSP         | Exis | Exec | Prop | Non-Arch |
| Task        | 1.35 | 3.92 |      | 0.92     |
| New Feature | 8.01 | 2.34 | 6.80 | 0.89     |
| Bug         | 0.23 | 0.41 | 0.40 | 1.02     |
| Epic        | 9.64 | 3.86 | 7.59 | 0.84     |

|             |       |      |      |          |
|-------------|-------|------|------|----------|
| DC          | Exis  | Exec | Prop | Non-Arch |
| Epic        | 12.41 |      | 7.60 | 0.91     |
| Task        |       | 2.73 |      | 0.96     |
| New Feature | 5.88  | 2.57 | 5.44 | 0.92     |
| Bug         | 0.11  | 0.49 | 0.36 | 1.02     |

|             |      |      |      |          |
|-------------|------|------|------|----------|
| SOAM        | Exis | Exec | Prop | Non-Arch |
| New Feature | 8.39 | 2.15 | 5.83 | 0.91     |
| Bug         | 0.25 | 0.24 | 0.46 | 1.03     |
| Task        |      | 3.09 |      | 0.93     |
| Epic        | 4.19 | 1.65 | 6.78 | 0.95     |

|             |       |      |       |          |
|-------------|-------|------|-------|----------|
| SDT         | Exis  | Exec | Prop  | Non-Arch |
| Epic        | 31.54 | 3.12 | 17.79 | 0.89     |
| Bug         | 0.14  | 0.34 | 0.49  | 1.02     |
| Task        | 2.30  | 5.70 | 1.77  | 0.90     |
| New Feature | 8.79  | 1.97 | 5.90  | 0.96     |

|             |       |      |      |          |
|-------------|-------|------|------|----------|
| WD          | Exis  | Exec | Prop | Non-Arch |
| New Feature | 10.32 | 1.95 | 6.58 | 0.94     |
| Task        | 1.35  | 4.92 | 1.84 | 0.91     |
| Bug         | 0.20  | 0.27 | 0.43 | 1.02     |
| Epic        | 6.10  | 1.78 |      | 0.97     |

Table 12: Chi-squared test results for the relation between the issue\_type issue characteristic and simple decision type contained in the issue, RQ3. **simple** (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

|             |       |      |      |          |
|-------------|-------|------|------|----------|
| All Domains | Exis  | Exec | Prop | Non-Arch |
| Bug         | 0.20  | 0.34 | 0.41 | 1.02     |
| New Feature | 9.55  | 2.39 | 7.58 | 0.91     |
| Task        | 1.36  | 4.51 | 1.20 | 0.91     |
| Epic        | 12.55 | 2.05 | 7.75 | 0.91     |

Table 13: Chi-squared test results for the relation between the issue\_type issue characteristic and simple decision type contained in the issue, RQ3. **simple full-domain only** (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

|             |       |       |       |          |
|-------------|-------|-------|-------|----------|
| CM          | Exis  | Exec  | Prop  | Non-Arch |
| Bug         | 0.19  | 0.33  | 0.49  | 1.01     |
| New Feature | 21.53 | 3.17  | 12.78 | 0.91     |
| Task        |       | 13.11 | 1.90  | 0.80     |
| Epic        | 48.08 |       | 43.63 | 0.81     |
| DSP         | Exis  | Exec  | Prop  | Non-Arch |
| Task        | 1.35  | 3.92  |       | 0.92     |
| New Feature | 8.01  | 2.34  | 6.80  | 0.89     |
| Bug         | 0.23  | 0.41  | 0.40  | 1.02     |
| Epic        | 9.64  | 3.86  | 7.59  | 0.84     |
| DC          | Exis  | Exec  | Prop  | Non-Arch |
| Epic        | 12.41 |       | 7.60  | 0.91     |
| Task        |       | 2.73  |       | 0.96     |
| New Feature | 5.88  | 2.57  | 5.44  | 0.92     |
| Bug         | 0.11  | 0.49  | 0.36  | 1.02     |
| SOAM        | Exis  | Exec  | Prop  | Non-Arch |
| New Feature | 8.39  | 2.15  | 5.83  | 0.91     |
| Bug         | 0.25  | 0.24  | 0.46  | 1.03     |
| Task        |       | 3.09  |       | 0.93     |
| Epic        | 4.19  | 1.65  | 6.78  | 0.95     |
| SDT         | Exis  | Exec  | Prop  | Non-Arch |
| Epic        | 31.54 | 3.12  | 17.79 | 0.89     |
| Bug         | 0.14  | 0.34  | 0.49  | 1.02     |
| Task        | 2.30  | 5.70  | 1.77  | 0.90     |
| New Feature | 8.79  | 1.97  | 5.90  | 0.96     |
| WD          | Exis  | Exec  | Prop  | Non-Arch |
| New Feature | 10.32 | 1.95  | 6.58  | 0.94     |
| Task        | 1.35  | 4.92  | 1.84  | 0.91     |
| Bug         | 0.20  | 0.27  | 0.43  | 1.02     |
| Epic        | 6.10  | 1.78  |       | 0.97     |

Table 14: Chi-squared test results for the relation between the issue\_type issue characteristic and simple decision type contained in the issue, RQ3. [simple without full](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| All Domains | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
|-------------|------|------|-----------|------|-----------|-----------|-----|----------|
| Won'T Fix   | 1.41 | 0.43 |           | 1.19 | 1.42      | 0.31      |     | 1.02     |
| Duplicate   |      | 0.75 |           | 1.21 |           |           |     | 1.01     |
| Won'T Do    | 0.80 | 0.48 |           |      | 0.33      |           |     | 1.03     |
| Fixed       | 0.98 | 1.03 |           | 1.05 | 1.08      | 1.25      |     | 1.00     |
| Done        | 0.92 | 1.30 |           | 0.68 | 0.54      | 0.37      |     | 0.99     |
| CM          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Won'T Fix   | 1.50 | 0.36 |           | 0.81 |           |           |     | 1.01     |
| Duplicate   | 1.24 | 0.55 |           |      |           |           |     | 1.01     |
| Won'T Do    | 0.26 | 0.19 |           | 0.32 |           |           |     | 1.02     |
| Fixed       | 0.86 | 1.42 |           | 1.20 |           |           |     | 0.99     |
| Done        |      | 2.68 |           |      |           |           |     | 0.96     |
| DSP         | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Fixed       | 0.90 | 0.93 |           | 0.90 | 0.90      |           |     | 1.00     |
| Won'T Fix   | 1.97 | 1.18 |           | 2.01 | 2.19      |           |     | 0.98     |
| Duplicate   |      |      |           | 1.58 | 1.54      | 3.18      |     | 0.99     |
| Won'T Do    | 2.32 |      |           |      |           |           |     | 0.99     |
| Done        | 1.21 | 1.47 |           |      |           |           |     | 0.98     |
| DC          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Done        | 1.35 | 0.46 |           |      |           |           |     | 1.05     |
| Won'T Do    | 1.91 | 0.67 |           | 2.44 |           |           |     | 1.03     |
| Duplicate   |      | 0.83 |           | 0.60 |           |           |     | 1.02     |
| Fixed       | 0.89 | 1.20 |           |      |           | 1.31      |     | 0.98     |
| Won'T Fix   |      | 0.39 |           |      |           |           |     | 1.06     |
| SOAM        | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Fixed       |      | 1.05 |           |      |           |           |     | 1.00     |
| Won'T Fix   | 1.45 | 0.64 |           |      |           |           |     | 1.01     |
| Duplicate   |      |      |           |      | 4.03      |           |     |          |
| Done        | 0.82 | 0.96 |           | 0.84 |           |           |     | 1.00     |
| Won'T Do    |      |      |           |      |           |           |     |          |
| SDT         | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Done        | 1.27 | 1.34 |           | 0.59 |           |           |     | 0.99     |
| Fixed       | 0.68 | 0.97 |           |      |           | 1.99      |     | 1.00     |
| Won'T Fix   | 1.43 | 0.52 |           |      |           |           |     | 1.02     |
| Duplicate   |      | 0.44 |           |      |           |           |     | 1.02     |
| Won'T Do    |      |      |           | 3.23 |           |           |     |          |
| WD          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Fixed       |      | 0.58 |           | 1.16 |           |           |     | 1.02     |
| Won'T Fix   | 2.23 | 0.31 |           |      | 3.62      |           |     | 1.03     |
| Won'T Do    |      |      |           | 2.45 |           |           |     |          |
| Done        | 0.76 | 1.62 |           | 0.69 |           |           |     | 0.96     |
| Duplicate   |      | 0.56 |           |      |           |           |     | 1.03     |

Table 15: Chi-squared test results for the relation between the resolution issue characteristic and simple decision type contained in the issue, RQ3. [intersected](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

|             |      |      |      |          |
|-------------|------|------|------|----------|
| All Domains | Exis | Exec | Prop | Non-Arch |
| Won'T Fix   | 1.41 | 0.43 | 1.20 | 1.02     |
| Duplicate   |      | 0.75 | 1.22 | 1.01     |
| Won'T Do    | 0.75 | 0.48 | 0.73 | 1.03     |
| Fixed       |      | 1.03 | 1.06 | 1.00     |
| Done        | 0.89 | 1.29 | 0.65 | 0.99     |
| CM          | Exis | Exec | Prop | Non-Arch |
| Won'T Fix   | 1.49 | 0.36 |      | 1.01     |
| Duplicate   |      | 0.55 | 0.74 | 1.01     |
| Won'T Do    | 0.24 | 0.20 | 0.31 | 1.02     |
| Fixed       | 0.88 | 1.42 | 1.21 | 0.99     |
| Done        |      | 2.67 |      | 0.96     |
| DSP         | Exis | Exec | Prop | Non-Arch |
| Fixed       | 0.90 | 0.93 | 0.90 | 1.00     |
| Won'T Fix   | 2.00 | 1.18 | 2.02 | 0.98     |
| Duplicate   |      |      | 1.60 | 0.99     |
| Won'T Do    | 2.21 |      |      | 0.98     |
| Done        | 1.16 | 1.46 |      | 0.98     |
| DC          | Exis | Exec | Prop | Non-Arch |
| Done        | 1.33 | 0.46 |      | 1.05     |
| Won'T Do    | 1.80 | 0.67 | 1.99 | 1.03     |
| Duplicate   |      | 0.83 | 0.64 | 1.02     |
| Fixed       | 0.90 | 1.20 |      | 0.98     |
| Won'T Fix   |      | 0.39 |      | 1.06     |
| SOAM        | Exis | Exec | Prop | Non-Arch |
| Fixed       |      | 1.05 |      | 1.00     |
| Won'T Fix   | 1.50 | 0.64 | 1.51 | 1.01     |
| Duplicate   |      |      |      | 0.99     |
| Done        | 0.81 | 0.96 | 0.82 | 1.00     |
| Won'T Do    |      |      |      |          |
| SDT         | Exis | Exec | Prop | Non-Arch |
| Done        | 1.24 | 1.33 | 0.56 | 0.99     |
| Fixed       | 0.71 |      | 1.17 | 1.00     |
| Won'T Fix   | 1.40 | 0.52 |      | 1.02     |
| Duplicate   |      | 0.45 |      | 1.02     |
| Won'T Do    |      |      |      |          |
| WD          | Exis | Exec | Prop | Non-Arch |
| Fixed       |      | 0.58 |      | 1.02     |
| Won'T Fix   | 2.30 | 0.31 | 1.64 | 1.03     |
| Won'T Do    |      |      |      |          |
| Done        | 0.75 | 1.62 | 0.70 | 0.96     |
| Duplicate   |      | 0.56 |      | 1.03     |

Table 16: Chi-squared test results for the relation between the resolution issue characteristic and simple decision type contained in the issue, RQ3. [simple](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

|             |      |      |      |          |
|-------------|------|------|------|----------|
| All Domains | Exis | Exec | Prop | Non-Arch |
| Won'T Fix   | 1.41 | 0.43 | 1.20 | 1.02     |
| Duplicate   |      | 0.75 | 1.22 | 1.01     |
| Won'T Do    | 0.75 | 0.48 | 0.73 | 1.03     |
| Fixed       |      | 1.03 | 1.06 | 1.00     |
| Done        | 0.89 | 1.29 | 0.65 | 0.99     |

Table 17: Chi-squared test results for the relation between the resolution issue characteristic and simple decision type contained in the issue, RQ3. [simple full-domain only](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)



| CM        | Exis | Exec | Prop | Non-Arch |
|-----------|------|------|------|----------|
| Won'T Fix | 1.49 | 0.36 |      | 1.01     |
| Duplicate |      | 0.55 | 0.74 | 1.01     |
| Won'T Do  | 0.24 | 0.20 | 0.31 | 1.02     |
| Fixed     | 0.88 | 1.42 | 1.21 | 0.99     |
| Done      |      | 2.67 |      | 0.96     |
| DSP       | Exis | Exec | Prop | Non-Arch |
| Fixed     | 0.90 | 0.93 | 0.90 | 1.00     |
| Won'T Fix | 2.00 | 1.18 | 2.02 | 0.98     |
| Duplicate |      |      | 1.60 | 0.99     |
| Won'T Do  | 2.21 |      |      | 0.98     |
| Done      | 1.16 | 1.46 |      | 0.98     |
| DC        | Exis | Exec | Prop | Non-Arch |
| Done      | 1.33 | 0.46 |      | 1.05     |
| Won'T Do  | 1.80 | 0.67 | 1.99 | 1.03     |
| Duplicate |      | 0.83 | 0.64 | 1.02     |
| Fixed     | 0.90 | 1.20 |      | 0.98     |
| Won'T Fix |      | 0.39 |      | 1.06     |
| SOAM      | Exis | Exec | Prop | Non-Arch |
| Fixed     |      | 1.05 |      | 1.00     |
| Won'T Fix | 1.50 | 0.64 | 1.51 | 1.01     |
| Duplicate |      |      |      | 0.99     |
| Done      | 0.81 | 0.96 | 0.82 | 1.00     |
| Won'T Do  |      |      |      |          |
| SDT       | Exis | Exec | Prop | Non-Arch |
| Done      | 1.24 | 1.33 | 0.56 | 0.99     |
| Fixed     | 0.71 |      | 1.17 | 1.00     |
| Won'T Fix | 1.40 | 0.52 |      | 1.02     |
| Duplicate |      | 0.45 |      | 1.02     |
| Won'T Do  |      |      |      |          |
| WD        | Exis | Exec | Prop | Non-Arch |
| Fixed     |      | 0.58 |      | 1.02     |
| Won'T Fix | 2.30 | 0.31 | 1.64 | 1.03     |
| Won'T Do  |      |      |      |          |
| Done      | 0.75 | 1.62 | 0.70 | 0.96     |
| Duplicate |      | 0.56 |      | 1.03     |

Table 18: Chi-squared test results for the relation between the resolution issue characteristic and simple decision type contained in the issue, RQ3. [simple without full](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| All Domains | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
|-------------|------|------|-----------|------|-----------|-----------|-----|----------|
| Closed      | 0.75 | 1.04 |           | 0.72 | 0.59      |           |     | 1.00     |
| Open        | 1.97 | 0.59 |           | 2.21 | 2.58      |           |     | 1.00     |
| Resolved    | 1.24 | 1.07 |           | 1.24 | 1.39      |           |     | 0.99     |
| In Progress | 4.14 |      |           | 2.10 | 6.19      |           |     | 0.97     |
| CM          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Closed      | 0.83 | 0.87 |           | 0.75 | 0.73      |           |     | 1.00     |
| Open        | 2.89 | 1.15 |           | 2.99 | 3.95      |           |     | 0.98     |
| Resolved    | 1.42 | 2.17 |           | 2.10 |           |           |     | 0.97     |
| In Progress |      |      |           |      |           |           |     | 0.98     |
| DSP         | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Resolved    | 0.95 |      |           | 0.90 |           |           |     | 1.00     |
| Open        | 1.50 | 0.79 |           | 1.62 | 1.66      |           |     | 1.00     |
| In Progress | 2.79 | 1.51 |           |      | 3.77      |           |     | 0.96     |
| Closed      | 0.83 | 1.09 |           | 0.85 | 0.78      | 0.62      |     |          |
| DC          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Closed      | 0.82 | 0.99 |           | 0.80 | 0.73      |           |     | 1.00     |
| In Progress | 8.30 | 0.23 |           | 2.62 | 15.16     |           |     | 1.02     |
| Resolved    | 1.52 | 1.60 |           | 1.30 |           |           |     | 0.94     |
| Open        | 1.87 | 0.28 |           | 2.99 | 2.88      |           |     | 1.05     |
| SOAM        | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Resolved    |      | 1.29 |           |      |           |           |     | 0.99     |
| Closed      | 0.92 | 0.87 |           | 0.89 | 0.69      |           |     | 1.01     |
| Open        | 1.63 | 0.68 |           | 1.77 | 2.78      |           |     | 1.01     |
| In Progress |      | 2.38 |           |      |           |           |     | 0.93     |
| SDT         | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Closed      | 0.82 | 1.04 |           | 0.93 | 0.81      |           |     | 1.00     |
| Open        | 2.27 | 0.60 |           | 1.55 | 2.73      |           |     | 1.01     |
| Resolved    | 1.73 |      |           |      |           |           |     |          |
| In Progress |      |      |           |      |           |           |     |          |
| WD          | Exis | Exec | Exis-Exec | Prop | Exis-Prop | Exec-Prop | All | Non-Arch |
| Closed      |      | 1.09 |           | 0.91 |           |           |     | 1.00     |
| Resolved    | 0.83 | 0.90 |           |      |           |           |     | 1.01     |
| Open        | 2.05 | 0.48 |           | 1.96 | 2.52      |           |     | 1.02     |
| In Progress |      | 2.23 |           |      |           | 76.75     |     | 0.92     |

Table 19: Chi-squared test results for the relation between the status issue characteristic and simple decision type contained in the issue, RQ3. [intersected](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| All Domains | Exis | Exec | Prop | Non-Arch |
|-------------|------|------|------|----------|
| Closed      | 0.73 | 1.04 | 0.70 | 1.00     |
| Open        | 2.03 | 0.60 | 2.24 | 1.00     |
| Resolved    | 1.25 | 1.07 | 1.26 | 0.99     |
| In Progress | 4.36 |      | 2.74 | 0.97     |
| CM          | Exis | Exec | Prop | Non-Arch |
| Closed      | 0.82 | 0.87 | 0.75 | 1.00     |
| Open        | 2.97 | 1.16 | 3.05 | 0.98     |
| Resolved    | 1.44 | 2.17 | 2.06 | 0.97     |
| In Progress |      |      |      | 0.98     |
| DSP         | Exis | Exec | Prop | Non-Arch |
| Resolved    | 0.94 |      | 0.91 | 1.00     |
| Open        | 1.52 | 0.79 | 1.62 | 1.00     |
| In Progress | 2.93 | 1.50 | 1.92 | 0.95     |
| Closed      | 0.82 | 1.09 | 0.83 |          |
| DC          | Exis | Exec | Prop | Non-Arch |
| Closed      | 0.82 | 0.99 | 0.82 | 1.00     |
| In Progress | 8.75 | 0.22 | 3.92 |          |
| Resolved    | 1.50 | 1.60 |      | 0.94     |
| Open        | 1.94 | 0.28 | 2.80 | 1.05     |
| SOAM        | Exis | Exec | Prop | Non-Arch |
| Resolved    |      | 1.29 |      | 0.99     |
| Closed      | 0.90 | 0.87 | 0.88 | 1.01     |
| Open        | 1.71 | 0.68 | 1.89 | 1.00     |
| In Progress |      | 2.37 |      | 0.93     |
| SDT         | Exis | Exec | Prop | Non-Arch |
| Closed      | 0.82 | 1.04 | 0.93 | 1.00     |
| Open        | 2.30 | 0.60 | 1.63 | 1.01     |
| Resolved    | 1.69 |      |      |          |
| In Progress |      |      | 4.95 |          |
| WD          | Exis | Exec | Prop | Non-Arch |
| Closed      | 0.94 | 1.09 | 0.90 | 1.00     |
| Resolved    | 0.83 | 0.90 |      | 1.01     |
| Open        | 2.08 | 0.48 | 2.05 | 1.02     |
| In Progress |      | 2.35 |      | 0.91     |

Table 20: Chi-squared test results for the relation between the status issue characteristic and simple decision type contained in the issue, RQ3. [simple](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| All Domains | Exis | Exec | Prop | Non-Arch |
|-------------|------|------|------|----------|
| Closed      | 0.73 | 1.04 | 0.70 | 1.00     |
| Open        | 2.03 | 0.60 | 2.24 | 1.00     |
| Resolved    | 1.25 | 1.07 | 1.26 | 0.99     |
| In Progress | 4.36 |      | 2.74 | 0.97     |

Table 21: Chi-squared test results for the relation between the status issue characteristic and simple decision type contained in the issue, RQ3. [simple full-domain only](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)

| CM          | Exis | Exec | Prop | Non-Arch |
|-------------|------|------|------|----------|
| Closed      | 0.82 | 0.87 | 0.75 | 1.00     |
| Open        | 2.97 | 1.16 | 3.05 | 0.98     |
| Resolved    | 1.44 | 2.17 | 2.06 | 0.97     |
| In Progress |      |      |      | 0.98     |
| DSP         | Exis | Exec | Prop | Non-Arch |
| Resolved    | 0.94 |      | 0.91 | 1.00     |
| Open        | 1.52 | 0.79 | 1.62 | 1.00     |
| In Progress | 2.93 | 1.50 | 1.92 | 0.95     |
| Closed      | 0.82 | 1.09 | 0.83 |          |
| DC          | Exis | Exec | Prop | Non-Arch |
| Closed      | 0.82 | 0.99 | 0.82 | 1.00     |
| In Progress | 8.75 | 0.22 | 3.92 |          |
| Resolved    | 1.50 | 1.60 |      | 0.94     |
| Open        | 1.94 | 0.28 | 2.80 | 1.05     |
| SOAM        | Exis | Exec | Prop | Non-Arch |
| Resolved    |      | 1.29 |      | 0.99     |
| Closed      | 0.90 | 0.87 | 0.88 | 1.01     |
| Open        | 1.71 | 0.68 | 1.89 | 1.00     |
| In Progress |      | 2.37 |      | 0.93     |
| SDT         | Exis | Exec | Prop | Non-Arch |
| Closed      | 0.82 | 1.04 | 0.93 | 1.00     |
| Open        | 2.30 | 0.60 | 1.63 | 1.01     |
| Resolved    | 1.69 |      |      |          |
| In Progress |      |      | 4.95 |          |
| WD          | Exis | Exec | Prop | Non-Arch |
| Closed      | 0.94 | 1.09 | 0.90 | 1.00     |
| Resolved    | 0.83 | 0.90 |      | 1.01     |
| Open        | 2.08 | 0.48 | 2.05 | 1.02     |
| In Progress |      | 2.35 |      | 0.91     |

Table 22: Chi-squared test results for the relation between the status issue characteristic and simple decision type contained in the issue, RQ3. [simple without full](#) (CM = Content Management, DSP = Data Storage and Processing, DC = DevOps and Cloud, SOAM = SOA and Middlewares, SDT = Software Development Tools, WD = Web Development)