Table 1 the number of faults detected in subject Flex

| Version |        | I      | Bottom-u | p      |        | Top-down |        |        |        |        |  |
|---------|--------|--------|----------|--------|--------|----------|--------|--------|--------|--------|--|
|         | 2-wise | 3-wise | 4-wise   | 5-wise | 6-wise | 2-wise   | 3-wise | 4-wise | 5-wise | 6-wise |  |
| v1      | 17     | 22     | 27       | 28     | 32     | 16       | 21     | 24     | 28     | 31     |  |
| v2      | 19     | 23     | 27       | 28     | 32     | 18       | 23     | 26     | 28     | 31     |  |
| v3      | 10     | 15     | 17       | 18     | 20     | 12       | 15     | 17     | 18     | 19     |  |
| v4      | 19     | 23     | 28       | 29     | 33     | 18       | 23     | 26     | 29     | 32     |  |
| v5      | 18     | 22     | 27       | 28     | 32     | 17       | 22     | 25     | 28     | 31     |  |

Table 2 the number of faults detected in subject Grep(SIR)

| Version |        | I      | Bottom-u | p      |        | Top-down |        |        |        |        |  |
|---------|--------|--------|----------|--------|--------|----------|--------|--------|--------|--------|--|
| version | 2-wise | 3-wise | 4-wise   | 5-wise | 6-wise | 2-wise   | 3-wise | 4-wise | 5-wise | 6-wise |  |
| v1      | 32     | 37     | 39       | 39     | 39     | 35       | 37     | 38     | 39     | 39     |  |
| v2      | 17     | 18     | 18       | 18     | 18     | 17       | 18     | 18     | 18     | 18     |  |
| v3      | 15     | 15     | 15       | 15     | 15     | 15       | 15     | 15     | 15     | 15     |  |
| v4      | 19     | 19     | 19       | 19     | 19     | 19       | 19     | 19     | 19     | 19     |  |
| v5      | 40     | 46     | 53       | 54     | 54     | 39       | 50     | 53     | 54     | 54     |  |

Table 3 the number of faults detected in subject Gzip

| Version  |        | I      | Bottom-u | p      |        | Top-down |        |        |        |        |  |
|----------|--------|--------|----------|--------|--------|----------|--------|--------|--------|--------|--|
| VEISIOII | 2-wise | 3-wise | 4-wise   | 5-wise | 6-wise | 2-wise   | 3-wise | 4-wise | 5-wise | 6-wise |  |
| v1       | 8      | 8      | 8        | 8      | 8      | 8        | 8      | 8      | 8      | 8      |  |
| v2       | 8      | 8      | 8        | 8      | 8      | 8        | 8      | 8      | 8      | 8      |  |
| v3       | 7      | 7      | 7        | 7      | 7      | 7        | 7      | 7      | 7      | 7      |  |
| v4       | 7      | 7      | 7        | 7      | 7      | 7        | 7      | 7      | 7      | 7      |  |
| v5       | 7      | 7      | 7        | 7      | 7      | 7        | 7      | 7      | 7      | 7      |  |

Table 4 the number of faults detected in subject Make

| Version |        | I      | Bottom-u <sub>j</sub> | p      |        | Top-down |        |        |        |        |  |
|---------|--------|--------|-----------------------|--------|--------|----------|--------|--------|--------|--------|--|
|         | 2-wise | 3-wise | 4-wise                | 5-wise | 6-wise | 2-wise   | 3-wise | 4-wise | 5-wise | 6-wise |  |
| v1      | 3      | 4      | 4                     | 4      | 4      | 2        | 3      | 4      | 4      | 4      |  |
| v2      | 3      | 3      | 3                     | 3      | 3      | 2        | 3      | 3      | 3      | 3      |  |
| v3      | 2      | 3      | 3                     | 3      | 4      | 3        | 3      | 3      | 4      | 4      |  |
| v4      | 2      | 3      | 3                     | 3      | 3      | 3        | 3      | 3      | 3      | 3      |  |
| v5      | 3      | 4      | 4                     | 4      | 4      | 3        | 3      | 4      | 4      | 4      |  |

Table 5 the number of faults detected in subject Sed

|         |        |        |           |        |        |          | J      |        |        |        |  |  |
|---------|--------|--------|-----------|--------|--------|----------|--------|--------|--------|--------|--|--|
| Version |        | I      | 3ottom-uj | p      |        | Top-down |        |        |        |        |  |  |
| Version | 2-wise | 3-wise | 4-wise    | 5-wise | 6-wise | 2-wise   | 3-wise | 4-wise | 5-wise | 6-wise |  |  |
| v1      | 12     | 14     | 15        | 15     | 15     | 13       | 15     | 15     | 15     | 15     |  |  |
| v2      | 11     | 14     | 15        | 15     | 15     | 12       | 15     | 15     | 15     | 15     |  |  |
| v3      | 12     | 15     | 16        | 16     | 16     | 13       | 16     | 16     | 16     | 16     |  |  |
| v4      | 13     | 16     | 17        | 17     | 17     | 14       | 17     | 17     | 17     | 17     |  |  |
| v5      | 15     | 18     | 19        | 19     | 19     | 17       | 19     | 19     | 19     | 19     |  |  |

Table 6 the number of faults detected in subject Findutils

| Version  |        | E      | Bottom-U | р      |        | Top-Down |        |        |        |        |  |
|----------|--------|--------|----------|--------|--------|----------|--------|--------|--------|--------|--|
| version  | 2-wise | 3-wise | 4-wise   | 5-wise | 6-wise | 2-wise   | 3-wise | 4-wise | 5-wise | 6-wise |  |
| e6680237 | 1      | 1      | 1        | 1      | 1      | 0        | 1      | 1      | 1      | 1      |  |
| 183115d0 | 0      | 0      | 0        | 0      | 0      | 0        | 0      | 0      | 1      | 1      |  |
| e1d0a991 | 1      | 1      | 1        | 1      | 1      | 1        | 1      | 1      | 1      | 1      |  |
| 93623752 | 0      | 0      | 0        | 0      | 1      | 0        | 0      | 0      | 0      | 1      |  |
| b445af98 | 0      | 1      | 1        | 1      | 1      | 0        | 1      | 1      | 1      | 1      |  |
| c8491c11 | 0      | 0      | 0        | 0      | 0      | 0        | 0      | 0      | 1      | 1      |  |
| f7197f3a | 0      | 0      | 0        | 0      | 0      | 0        | 0      | 0      | 1      | 1      |  |
| dbcb10e9 | 0      | 0      | 1        | 1      | 1      | 0        | 0      | 0      | 1      | 1      |  |
| 66c536bb | 1      | 1      | 1        | 1      | 1      | 1        | 1      | 1      | 1      | 1      |  |
| 24bf33c0 | 1      | 1      | 1        | 1      | 1      | 1        | 1      | 1      | 1      | 1      |  |
| 091557f6 | 1      | 1      | 1        | 1      | 1      | 1        | 1      | 1      | 1      | 1      |  |
| 07b941b1 | 1      | 1      | 1        | 1      | 1      | 1        | 1      | 1      | 1      | 1      |  |
| 24e2271e | 0      | 0      | 0        | 1      | 1      | 0        | 0      | 0      | 0      | 0      |  |
| ff248a20 | 0      | 0      | 1        | 1      | 1      | 1        | 1      | 1      | 1      | 1      |  |
| 6e4cecb6 | 1      | 1      | 1        | 1      | 1      | 1        | 1      | 1      | 1      | 1      |  |

Table 7 the number of faults detected in subject Grep(CoRE)

| Vancian  |       | Е     | Bottom-U | ſр    |       | Top-Down |       |       |       |       |  |
|----------|-------|-------|----------|-------|-------|----------|-------|-------|-------|-------|--|
| Version  | 2-way | 3-way | 4-way    | 5-way | 6-way | 2-way    | 3-way | 4-way | 5-way | 6-way |  |
| 074842d3 | 0     | 0     | 0        | 0     | 0     | 0        | 0     | 0     | 0     | 0     |  |
| 2be0c659 | 0     | 0     | 0        | 1     | 1     | 0        | 0     | 0     | 1     | 1     |  |
| 3220317a | 0     | 1     | 1        | 1     | 1     | 1        | 1     | 1     | 1     | 1     |  |
| 3c3bdace | 1     | 1     | 1        | 1     | 1     | 1        | 1     | 1     | 1     | 1     |  |
| 54d55bba | 1     | 1     | 1        | 1     | 1     | 1        | 1     | 1     | 1     | 1     |  |
| 55cf7b6a | 1     | 1     | 1        | 1     | 1     | 0        | 0     | 1     | 1     | 1     |  |
| 58195fab | 1     | 1     | 1        | 1     | 1     | 1        | 1     | 1     | 1     | 1     |  |
| 5fa8c7c9 | 0     | 0     | 1        | 1     | 1     | 0        | 1     | 1     | 1     | 1     |  |
| 6d952bee | 0     | 0     | 1        | 1     | 1     | 0        | 1     | 1     | 1     | 1     |  |
| 7aa698d3 | 0     | 0     | 1        | 1     | 1     | 0        | 1     | 1     | 1     | 1     |  |
| 8f08d8e2 | 1     | 1     | 1        | 1     | 1     | 0        | 1     | 1     | 1     | 1     |  |
| 9c45c193 | 0     | 1     | 1        | 1     | 1     | 1        | 1     | 1     | 1     | 1     |  |
| c1cb19fe | 0     | 1     | 1        | 1     | 1     | 0        | 0     | 1     | 1     | 1     |  |
| c96b0f2c | 0     | 0     | 1        | 1     | 1     | 0        | 1     | 1     | 1     | 1     |  |
| db9d6340 | 0     | 0     | 0        | 1     | 1     | 0        | 0     | 1     | 1     | 1     |  |