OneToOne bi-directional test on persistent instances

→ Cascaded link

∞ Non-cascaded backRef link

It is not possible to make an optimization to just set the entity referred in the mappedBy side, since the other side might have been associated with a different entity and will need to be unlinked (See test case 9).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **A** | | | | **B** | | | | **C** | | | | **D** | | | | **A** | **B** | **C** | **D** |
| ***Old*** | | ***New*** | | ***Old*** | | ***New*** | | ***Old*** | | ***New*** | | ***Old*** | | ***New*** | |  |  |  |  |
| **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** |  |  |  |  |
| 1 |  | ∅ |  | B | ∅ |  | A |  |  |  |  |  |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A |  |  |
| 2 |  | ∅ |  | B | ∅ |  | ∅ |  |  |  |  |  |  |  |  |  | AA → B | BA ∞ A |  |  |
| 3 |  | C |  | B | ∅ |  | A |  | A |  | ∅ |  |  |  |  |  | AA → B  AB → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  BB ∞ A | CC ∞ ∅  CA ∞ ∅ |  |
| 4 |  | C |  | B | ∅ |  | ∅ |  | A |  | ∅ |  |  |  |  |  | AA → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A | CA ∞ ∅  CC ∞ ∅ |  |
| 5 |  | ∅ |  | B | C |  | A |  |  | B |  | ∅ |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A  ~~B~~~~C~~ ∞ ~~∅~~ | CB → ∅  CC → ∅ |  |
| 6 |  | ∅ |  | B | C |  | ∅ |  |  | B |  | ∅ |  |  |  |  | AA → B | BA ∞ A  ~~B~~~~B~~ ∞ ~~∅~~  ~~B~~~~C~~ ∞ ~~∅~~ | CC → ∅  CB → ∅ |  |
| 7 |  | ∅ |  | B | C |  | A |  |  |  |  |  |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A | CB → ∅ |  |
| 8 |  | ∅ |  | B | C |  | ∅ |  |  |  |  |  |  |  |  |  | AA → B | BA ∞ A  ~~B~~~~B~~ ∞ ~~∅~~ | CB → ∅ |  |
| 9 |  | C |  | B | ∅ |  | A |  |  |  |  |  |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A | CA ∞ ∅ |  |
| 10 |  | C |  | B | ∅ |  | ∅ |  |  |  |  |  |  |  |  |  | AA → B | BA ∞ A | CA ∞ ∅ |  |
| 11 |  | C |  | B | D |  | A |  | A |  | ∅ |  |  | B |  | ∅ | AA → B  AB → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  BB ∞ A  ~~B~~~~D~~ ∞ ~~∅~~ | CC ∞ ∅  CA ∞ ∅ | DB → ∅  DD → ∅ |
| 12 |  | C |  | B | D |  | ∅ |  | A |  | ∅ |  |  | B |  | ∅ | AA → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  BB ∞ ~~∅~~  ~~B~~~~D~~ ∞ ~~∅~~ | CA ∞ ∅  CC ∞ ∅ | DB → ∅  DD → ∅ |
| 13 |  | C |  | B | D |  | A |  | A |  | D |  |  | B |  | C | AA → B  AB → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  BB ∞ A  ~~B~~~~D~~ ∞ ~~∅~~ | CC ∞ D  ~~C~~~~A~~ ∞ ~~∅~~  CD ∞ D | ~~D~~~~B~~ ~~→ ∅~~  DD → C  DC → C |
| 14 |  | C |  | B | D |  | ∅ |  | A |  | D |  |  | B |  | C | AA → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  ~~B~~~~B~~ ∞ ~~∅~~  ~~B~~~~D~~ ∞ ~~∅~~ | CC ∞ D  ~~C~~~~A~~ ∞ ~~∅~~  CD ∞ D | ~~D~~~~B~~ ~~→ ∅~~  DD → C  DC → C |
| 15 |  | C |  | B | D |  | ∅ |  | A |  | D |  |  | B |  | ∅ | AA → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  ~~B~~~~B~~ ∞ ~~∅~~  ~~B~~~~D~~ ∞ ~~∅~~ | CC ∞ D  ~~C~~~~A~~ ∞ ~~∅~~ | ~~D~~~~B~~ ~~→ ∅~~  ~~D~~~~D~~ ~~→ ∅~~  DC → C |
| 16 |  | C |  | B | D |  | ∅ |  | A |  | ∅ |  |  | B |  | ∅ | AA → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  ~~B~~~~B~~ ∞ ~~∅~~  ~~B~~~~D~~ ∞ ~~∅~~ | CC ∞ ∅  CA ∞ ∅ | ~~D~~~~B~~ ~~→ ∅~~  ~~D~~~~D~~ ~~→ ∅~~ |
| 17 |  | ∅ |  | B | ∅ |  | A |  | ∅ |  | A |  |  |  |  |  | AA → B  AB → B  AC → C | BA ∞ A  BB ∞ A | CC ∞ A |  |
| 18 |  | D |  | B | C |  | A |  |  |  |  |  |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A | CB → ∅ | DA ∞ ∅ |

OneToOne bi-directional test on mix of persistent and transient instances

A transient instance cannot have an old value. Transient instance are italicized.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **A** | | | | **B** | | | | **C** | | | | **D** | | | | **A** | **B** | **C** | **D** |
| ***Old*** | | ***New*** | | ***Old*** | | ***New*** | | ***Old*** | | ***New*** | | ***Old*** | | ***New*** | |  |  |  |  |
| **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** | **∞** | **→** |  |  |  |  |
| 19 |  | ∅ |  | B | ∅ |  | A |  |  |  |  |  |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A |  |  |
| 20 |  | ∅ |  | B | ∅ |  | ∅ |  |  |  |  |  |  |  |  |  | AA → B | BA ∞ A |  |  |
| 21 |  | ∅ |  | B | ∅ |  | ∅ |  |  |  |  |  |  |  |  |  | AA → B | BA ∞ A |  |  |
| 22 |  | C |  | B | ∅ |  | A |  | A |  | ∅ |  |  |  |  |  | AA → B  AB → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  BB ∞ A | CC ∞ ∅  CA ∞ ∅ |  |
| 23 |  | C |  | B | ∅ |  | ∅ |  | A |  | ∅ |  |  |  |  |  | AA → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A | CA ∞ ∅  CC ∞ ∅ |  |
| 24 |  | ∅ |  | B | C |  | A |  |  | B |  | ∅ |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A  ~~B~~~~C~~ ∞ ~~∅~~ | CB → ∅  CC → ∅ |  |
| 25 |  | ∅ |  | B | C |  | ∅ |  |  | B |  | ∅ |  |  |  |  | AA → B | BA ∞ A  ~~B~~~~B~~ ∞ ~~∅~~  ~~B~~~~C~~ ∞ ~~∅~~ | CC → ∅  CB → ∅ |  |
| 26 |  | ∅ |  | B | C |  | A |  |  |  |  |  |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A | CB → ∅ |  |
| 27 |  | ∅ |  | B | C |  | ∅ |  |  |  |  |  |  |  |  |  | AA → B | BA ∞ A  ~~B~~~~B~~ ∞ ~~∅~~ | CB → ∅ |  |
| 28 |  | C |  | B | ∅ |  | A |  |  |  |  |  |  |  |  |  | AA → B  AB → B | BA ∞ A  BB ∞ A | CA ∞ ∅ |  |
| 29 |  | C |  | B | ∅ |  | ∅ |  |  |  |  |  |  |  |  |  | AA → B | BA ∞ A | CA ∞ ∅ |  |
| 30 |  | C |  | B | ∅ |  | A | C | A |  | B |  |  |  |  |  | AA → B  AB → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  BB ∞ A  BC → C  BB → C | CA ∞ ∅  Cc ∞ B  CB ∞ B |  |
| 31 |  | C |  | B | ∅ |  | A |  | A |  | D |  |  | ∅ |  | C | AA → B  AB → B  ~~A~~~~C~~ ~~→ ∅~~ | BA ∞ A  BB ∞ A | ~~C~~~~A~~ ~~∞ ∅~~  CD ∞ D  CC ∞ D | DD → C  DC → C |
| 32 |  | ∅ |  | B | ∅ |  | A |  | ∅ |  | A |  |  |  |  |  | AA → B  AB → B  AC → C | BA ∞ A  BB ∞ A | CC ∞ A |  |

Notes

The first four columns specify what is present in the input. The last four columns specify the desired output in the database. An empty column represents that that data is not present in the input.

Each of these 4 objects (A, B, C and D) is of the same class and has OneToOne bi-directional relationship with one another.

This data table describes how the input and output for the OneToOne association is mapped after the value is set and the SetterAction objects that are triggered because of this.