

## SQLite-1-1

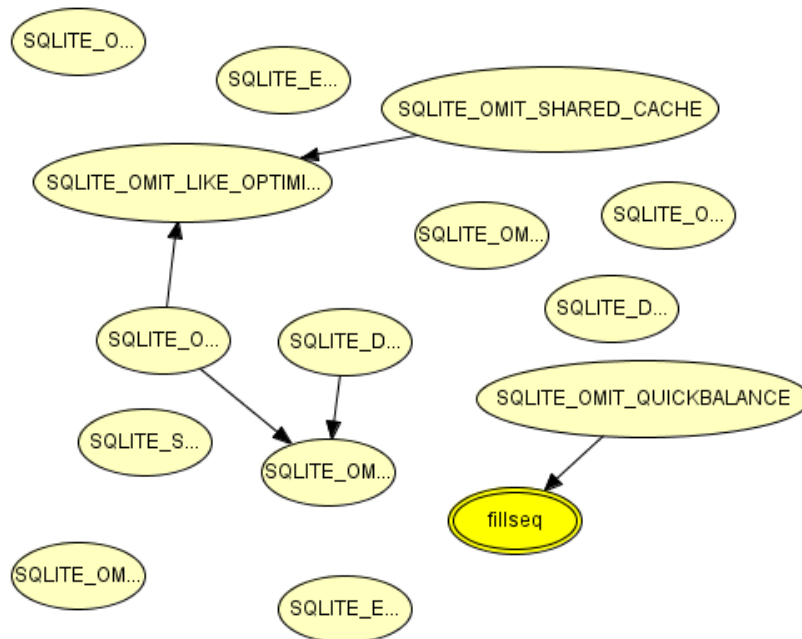
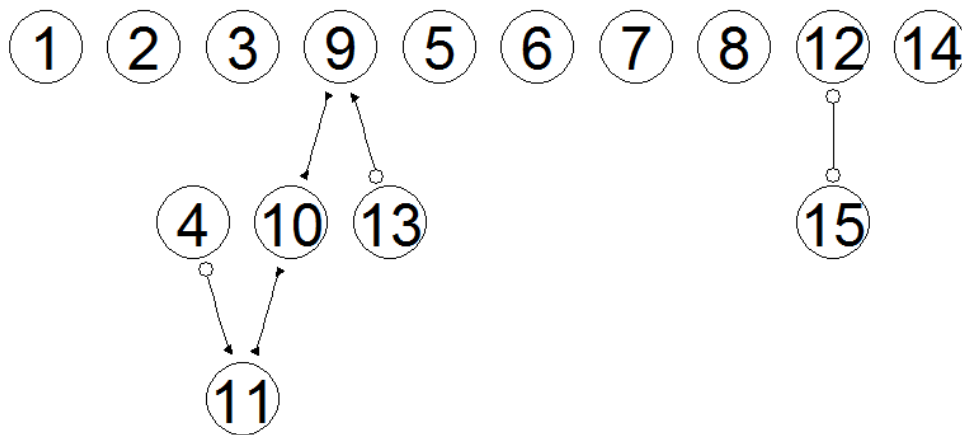
[1] "SQLITE\_SECURE\_DELETE" "SQLITE\_ENABLE\_ATOMIC\_WRITE" "SQLITE\_ENABLE\_STAT2"

[4] "SQLITE\_DISABLE\_LFS" "SQLITE\_DISABLE\_DIRSYNC"  
"SQLITE\_OMIT\_AUTOMATIC\_INDEX"

[7] "SQLITE\_OMIT\_BETWEEN\_OPTIMIZATION" "SQLITE\_OMIT\_BTREECOUNT"  
"SQLITE\_OMIT\_LIKE\_OPTIMIZATION"

[10] "SQLITE\_OMIT\_LOOKASIDE" "SQLITE\_OMIT\_OR\_OPTIMIZATION"  
"SQLITE\_OMIT\_QUICKBALANCE"

[13] "SQLITE\_OMIT\_SHARED\_CACHE" "SQLITE\_OMIT\_XFER\_OPT" "fillseq"

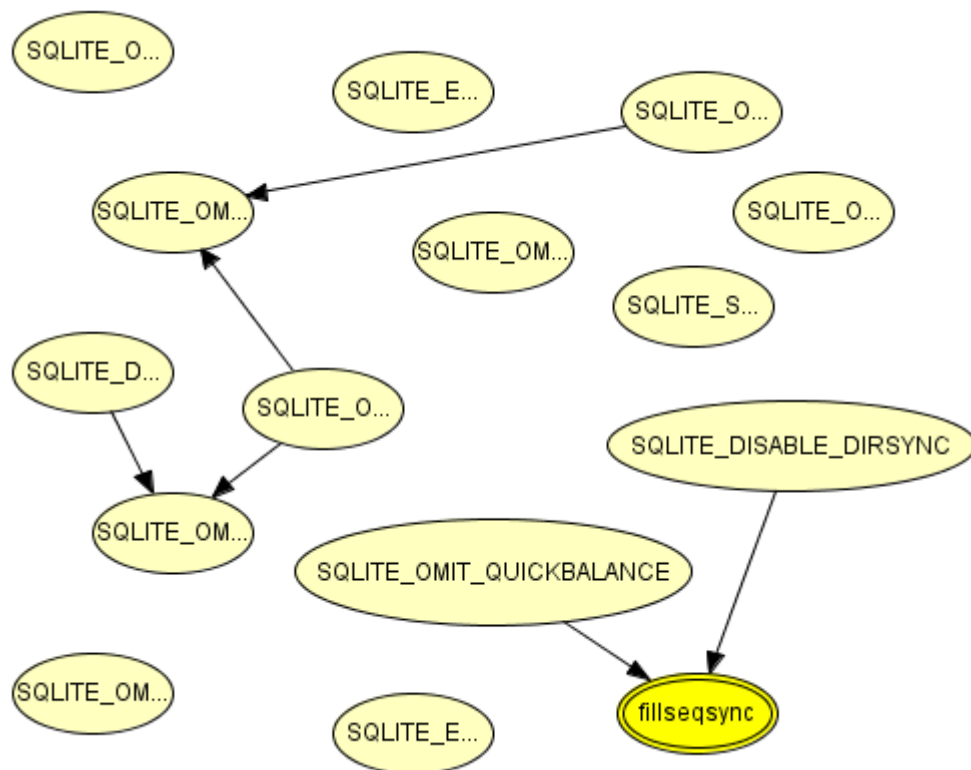
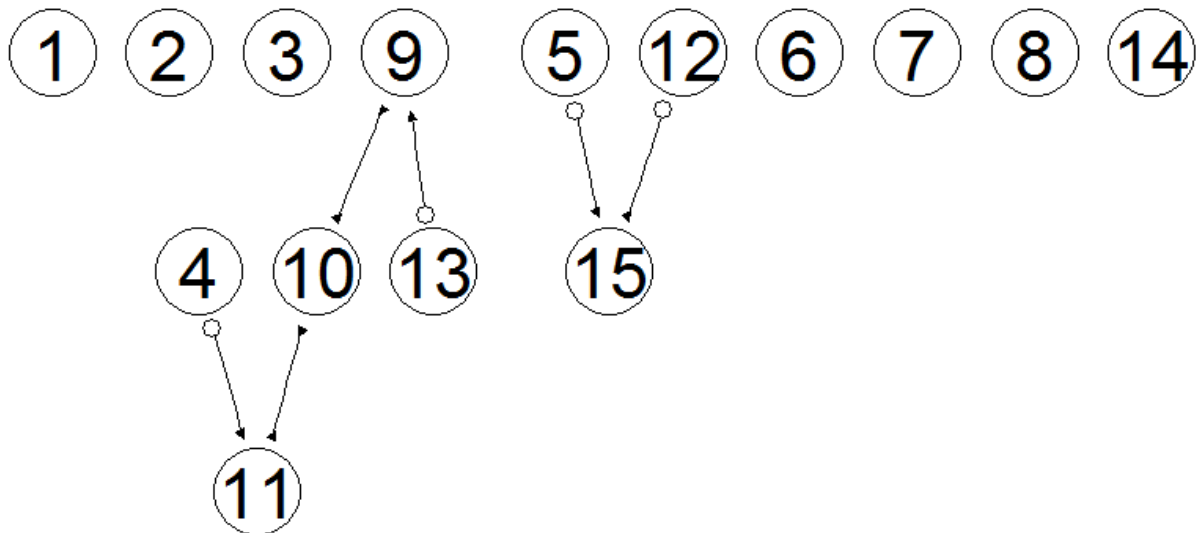


```
[13] "SQLITE_OMIT_SHARED_CACHE"      "SQLITE_OMIT_XFER_OPT"      "fillseqsync"
```

```
[13] "SQLITE_OMIT_SHARED_CACHE"
```

"SQLITE\_OMIT\_XFER\_OPT"

```
"fillseqsync"
```



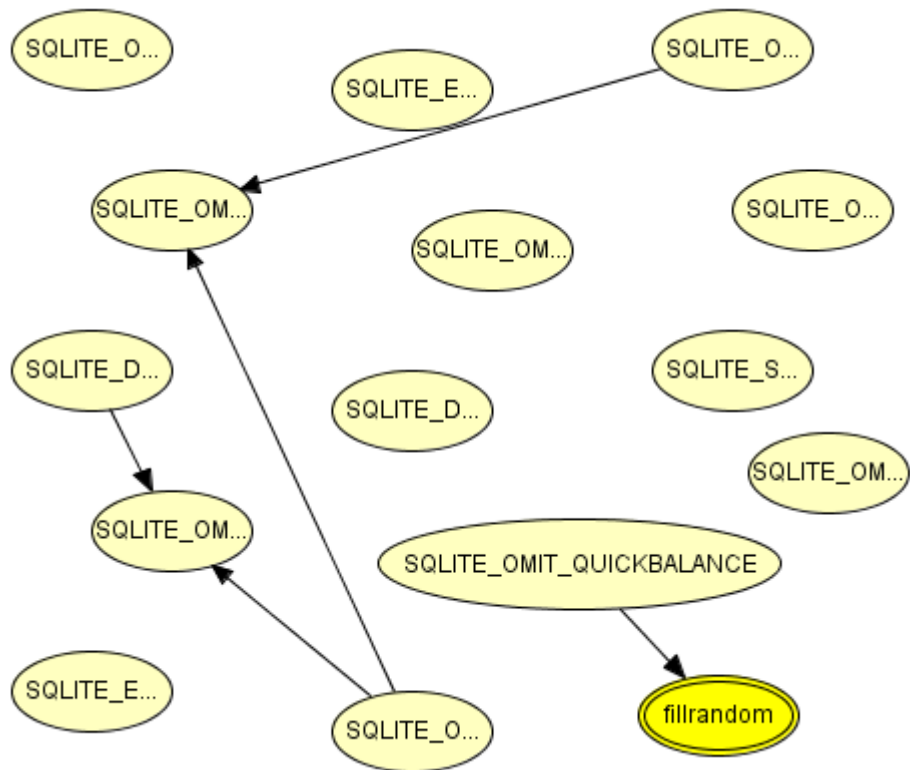
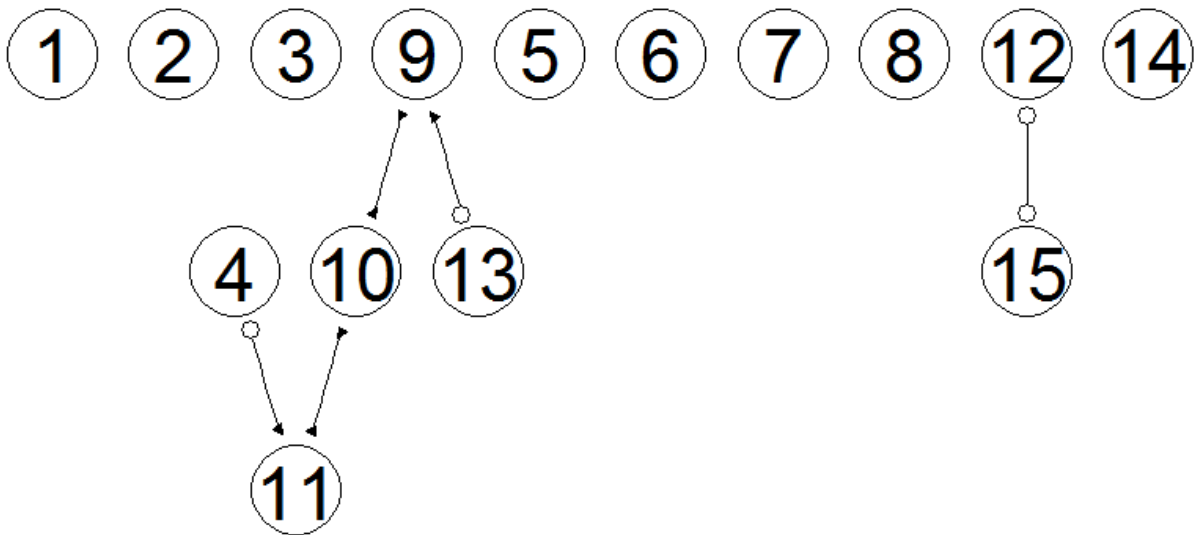


### SQLite-1-4

[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"fillrandom"

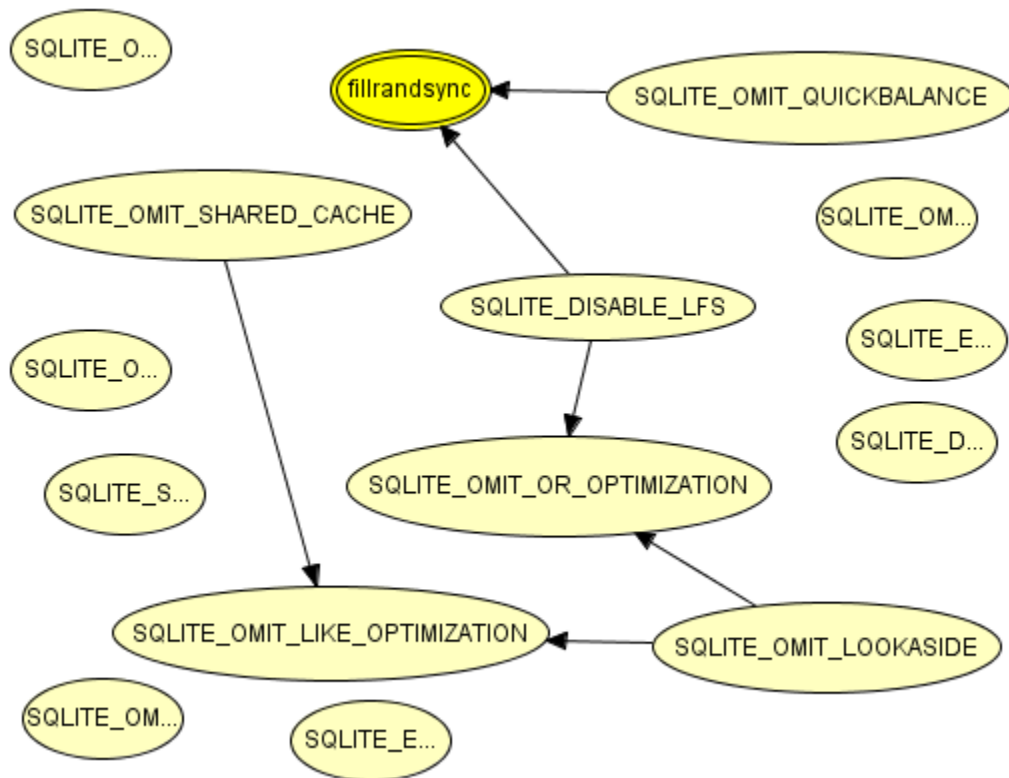
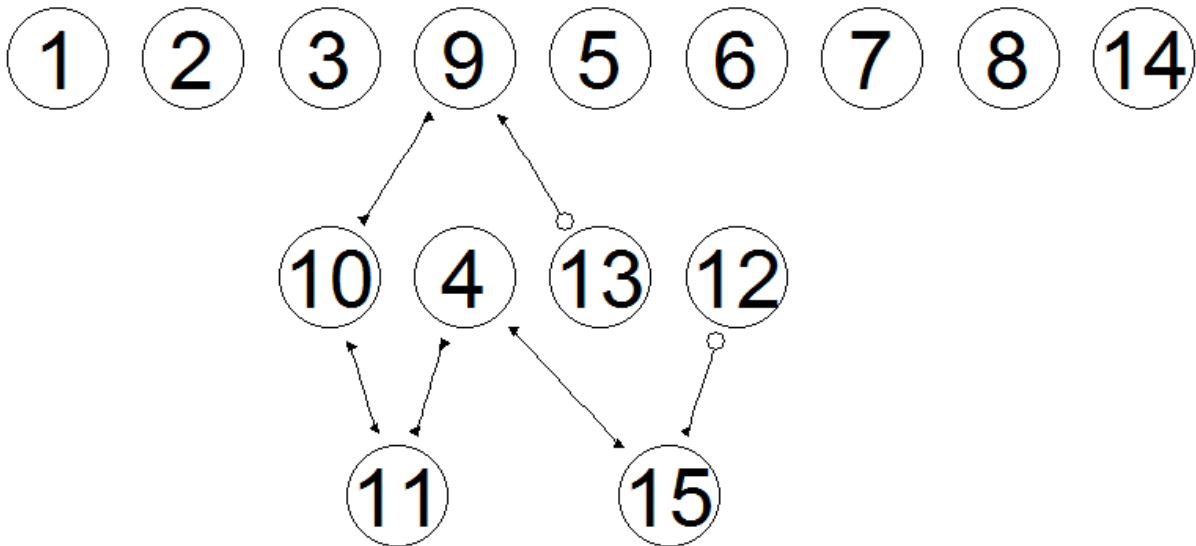


### SQLite-1-5

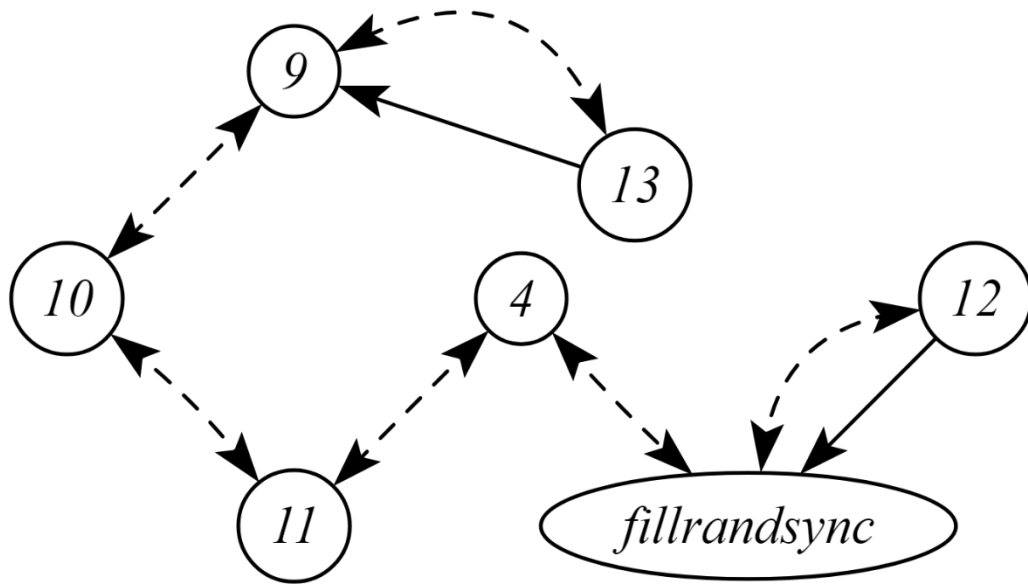
[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"fillrandsync"



## Identifiability



1  $P_4^*(fillrandsync) = P^*(fillrandsync)$

Derivation in Do Calculus

Expand All Collapse All

$\vdash P_4^*(fillrandsync)$  (1)

-  $P^*(fillrandsync)$  Rule 3:  $(4 \mid fillrandsync)_{G_4}$  (2)

Finally we get:  $P^*(fillrandsync)$

Subgraph:  $G$

☐ Show non active nodes/edges

Load

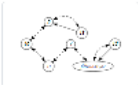
Derivation

Remove

$P_{12}^*(fillrandsync)$  is not identifiable from  $P(fillrandsync, 4, 12, 11, 10, 9, 13)P(fillrandsync, 4, 12, 11, 10, 9, 13)$ .

1

$$P_{13}^*(fillrandsync) = P^*(fillrandsync)$$



Load
Estimation
Derivation
Remove

Derivation in Do-Calculus

Expand All Collapse All

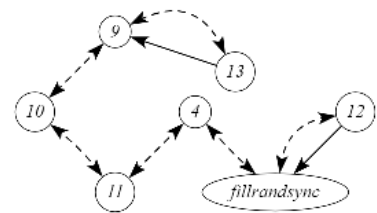
$\vdash P_{13}^*(fillrandsync)$  (1)  
-  $I^*(fillrandsync)$  Rule 3:  $(13 \mid fillrandsync)_{G_{\text{reg}}}$  (2)

Finally we get:  $I^*(fillrandsync)$

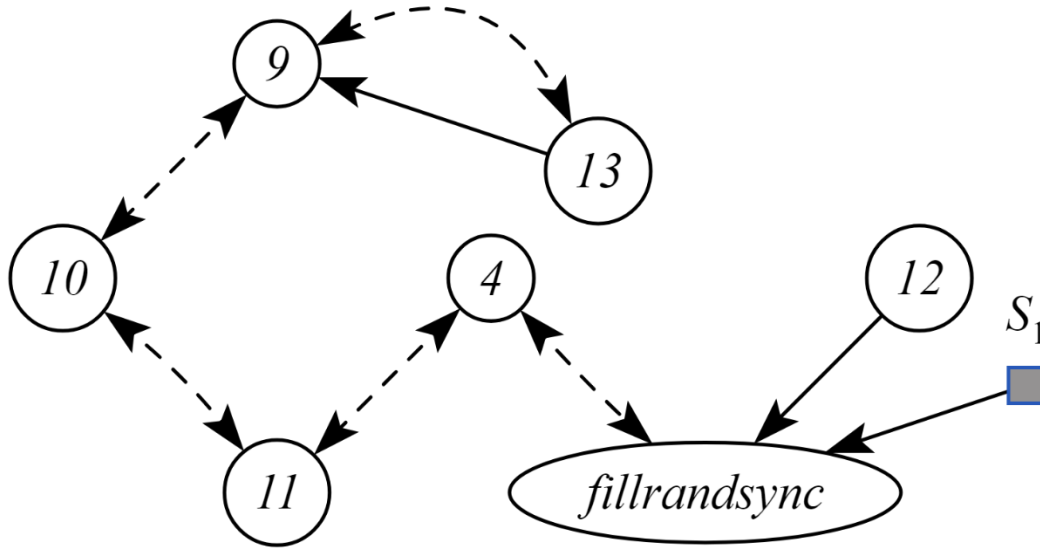
Subgraph:

$G$

☐ Show non active nodes/edges



## Transportability



1

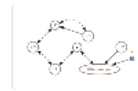
$$I_{12}^*(fillrandsync) = I^{**}(fillrandsync|12)$$

Derivation in **Do-Calculus**

[Expand All](#) [Collapse All](#)

$\vdash P_{12}^*(fillrandsync)$  (1)  
 $I^*(fillrandsync|12)$  Rule 2:  $(12 \perp fillrandsync)_{G_{12}}$  (2)

Finally we get:  $P^*(fillrandsync|12)$



Load

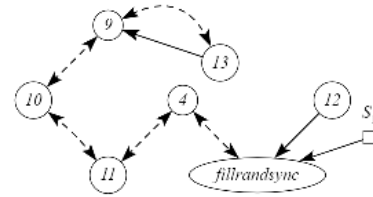
Derivation

Remove

Subgraph:

☐ Show non active nodes/edges

$G$



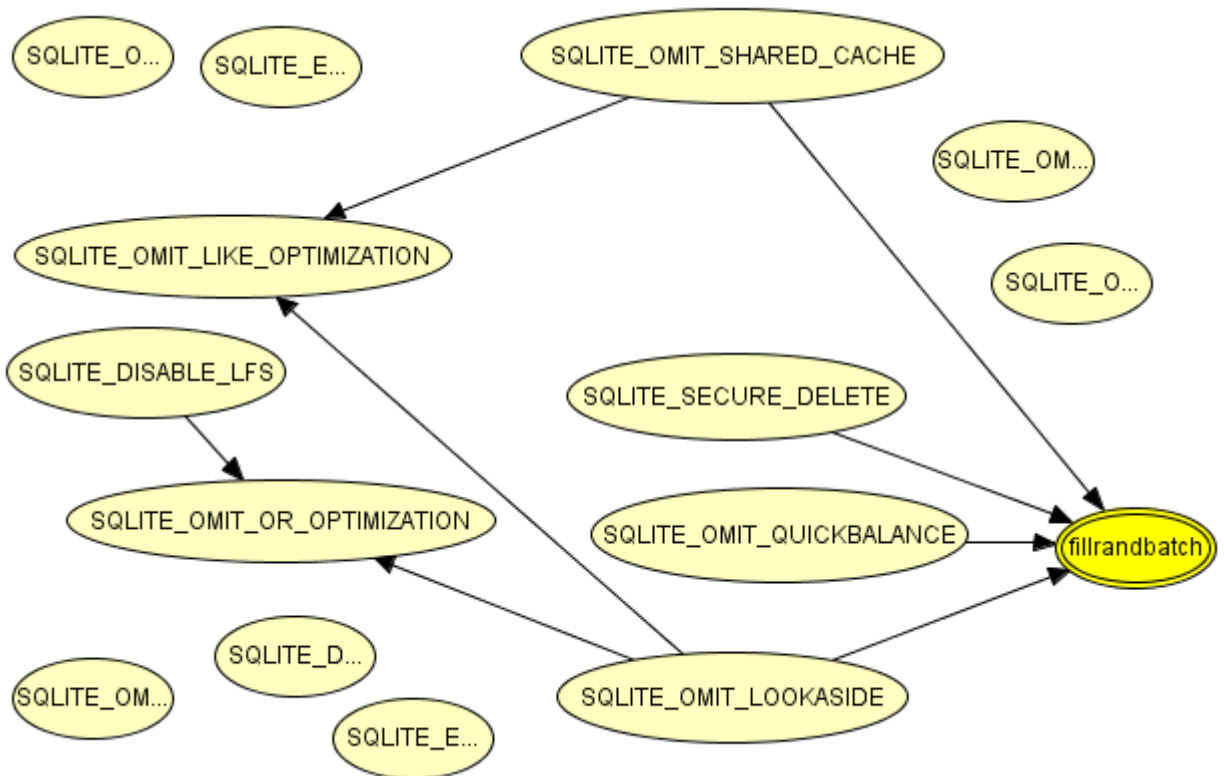
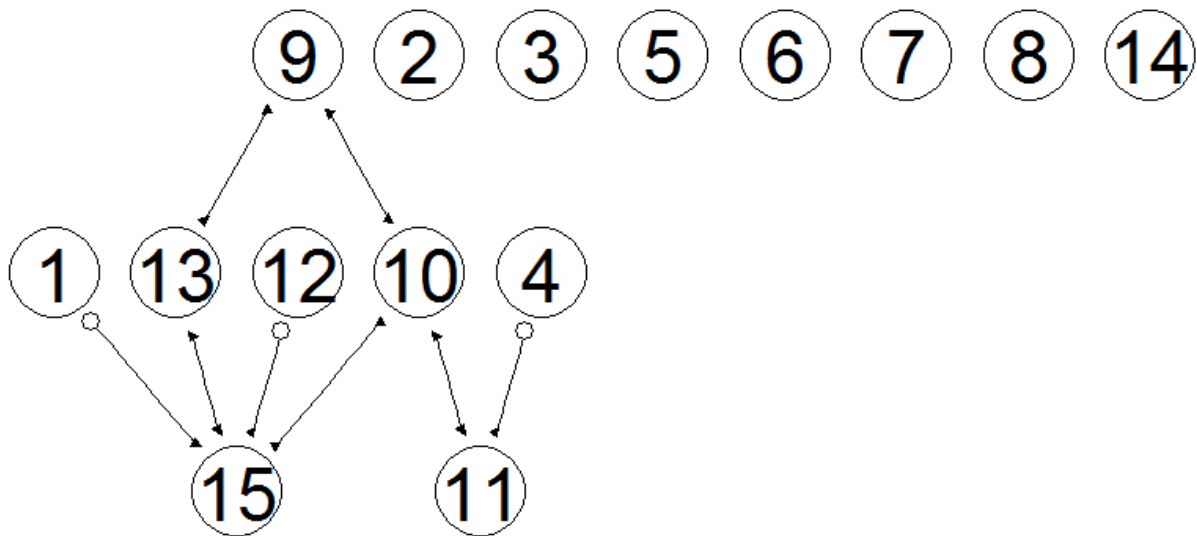


# SQLite-1-6

[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"fillrandbatch"

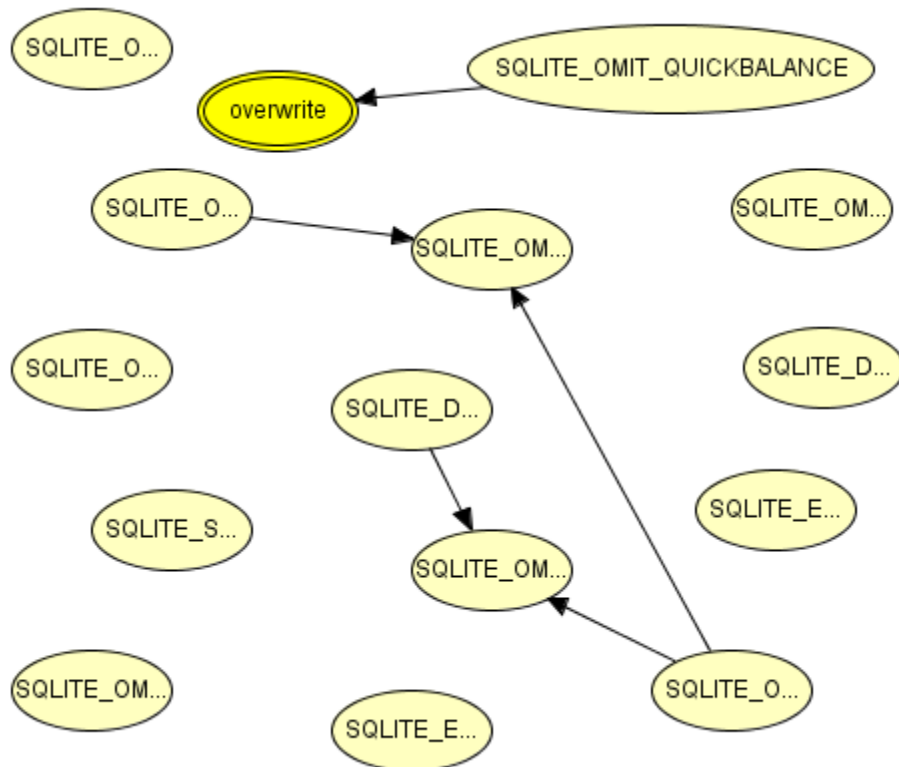
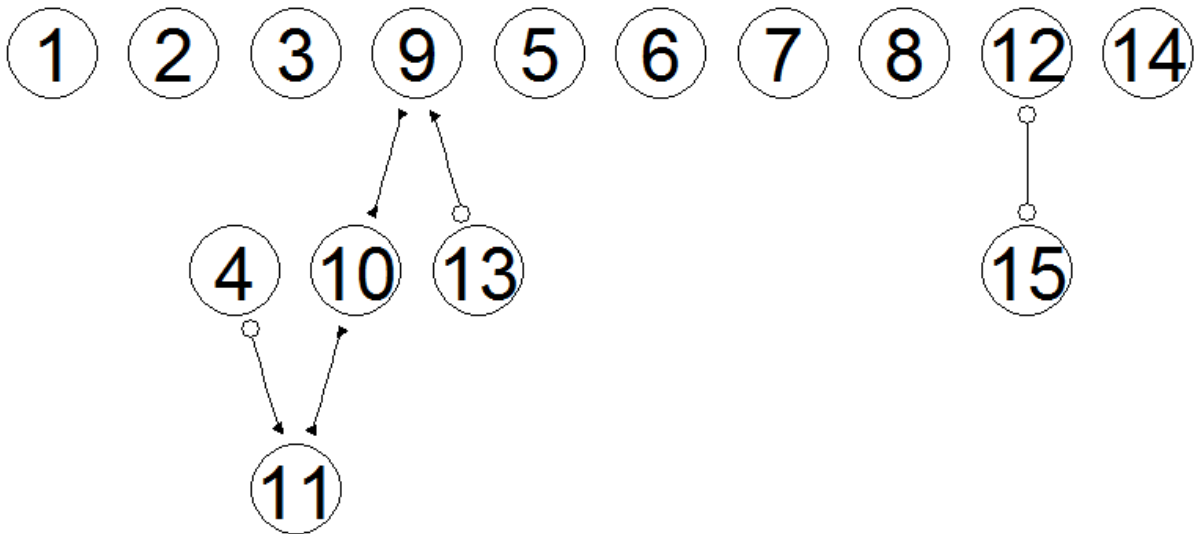


### SQLite-1-7

[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"overwrite"

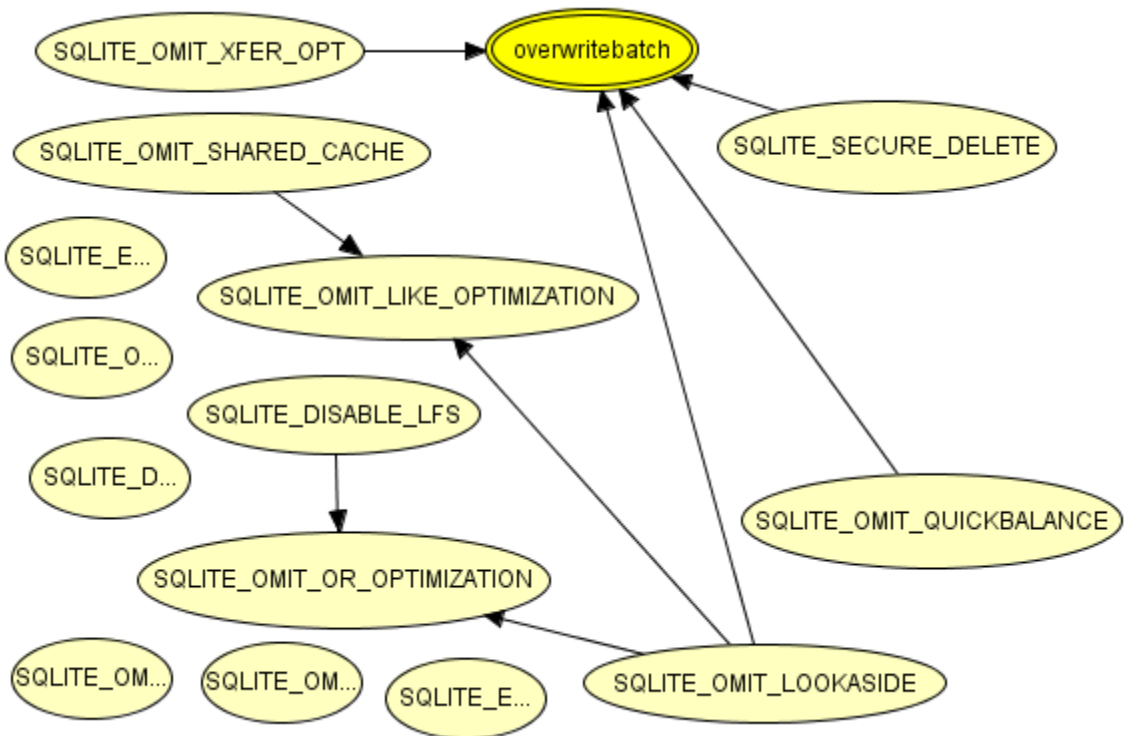
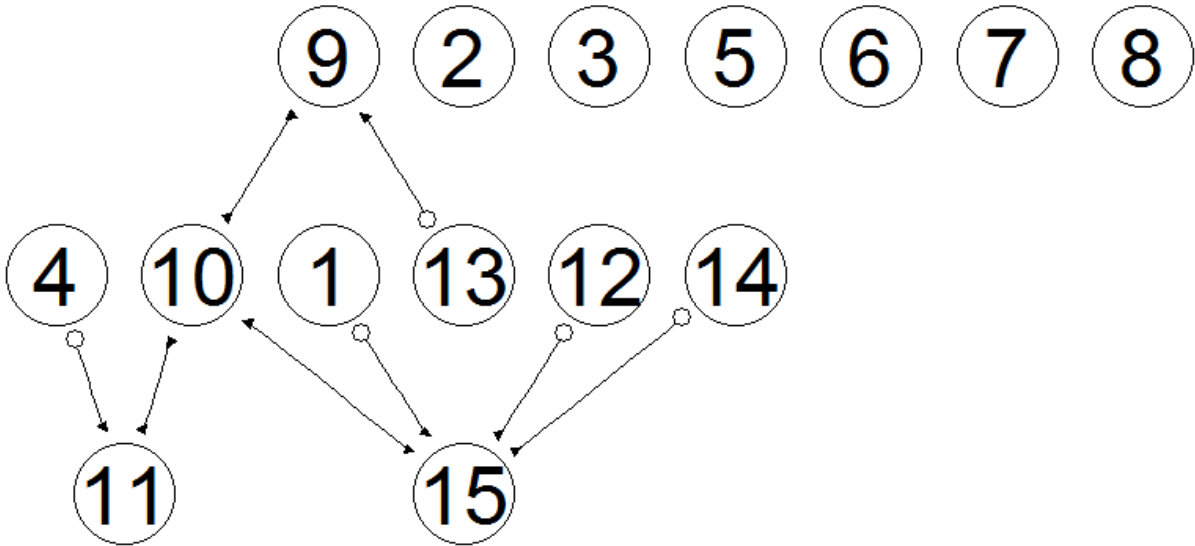


## SQLite-1-8

```
[13] "SQLITE_OMIT_SHARED_CACHE"
```

"SQLITE\_OMIT\_XFER\_OPT"

```
"overwritebatch"
```

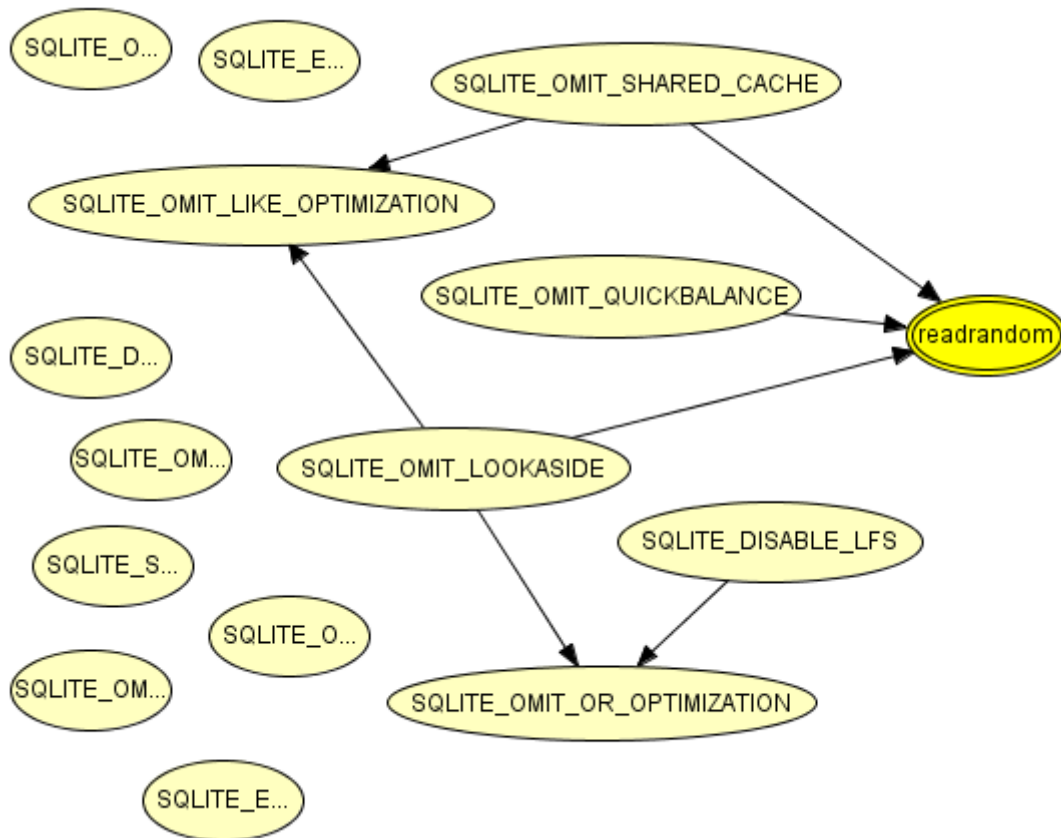
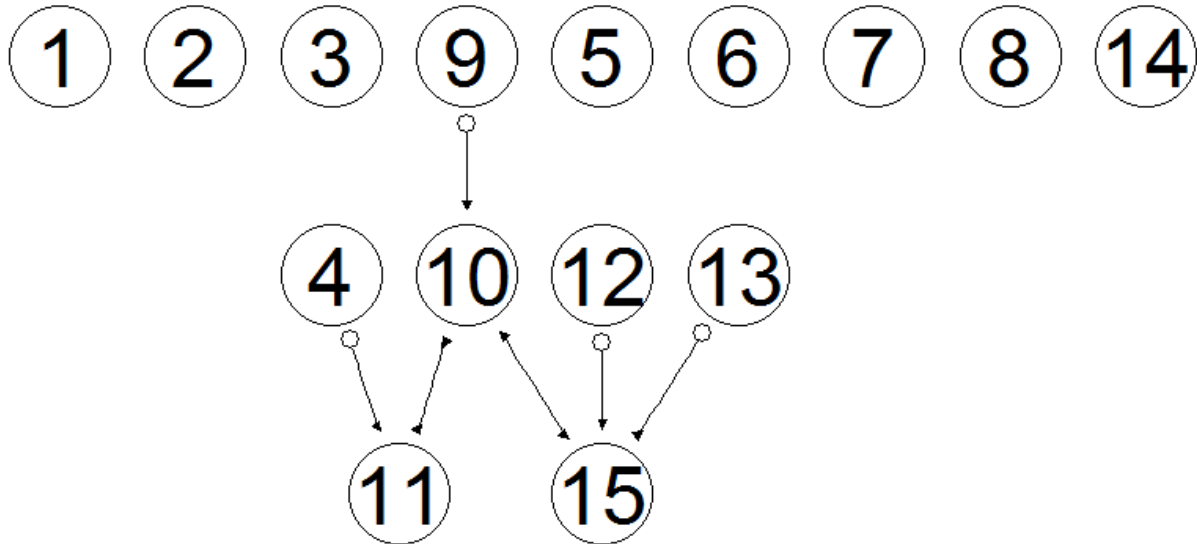


### SQLite-1-9

[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"readrandom"

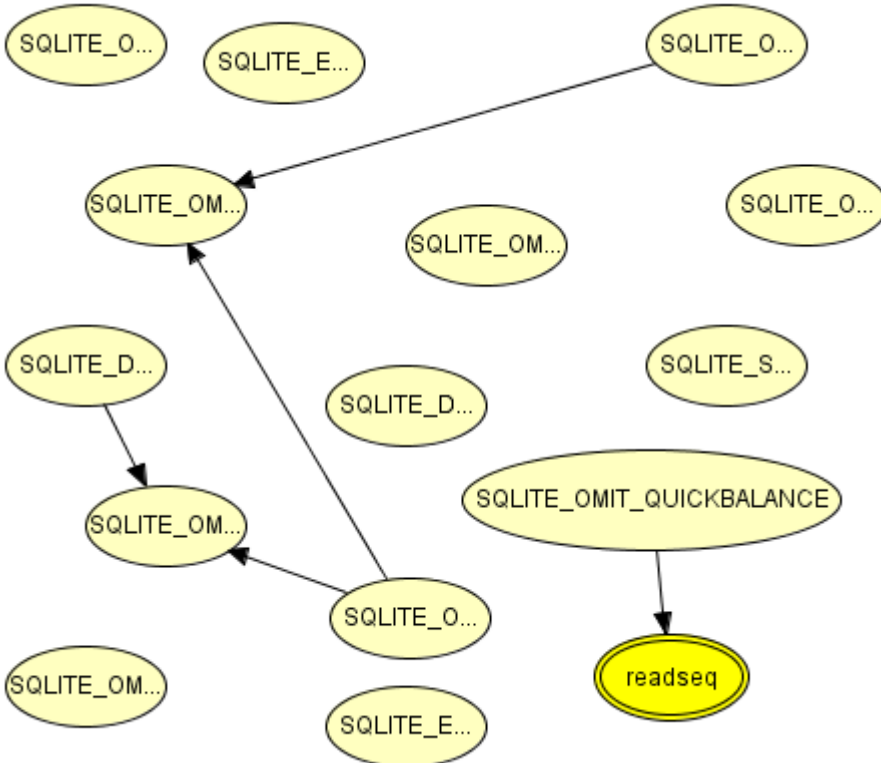
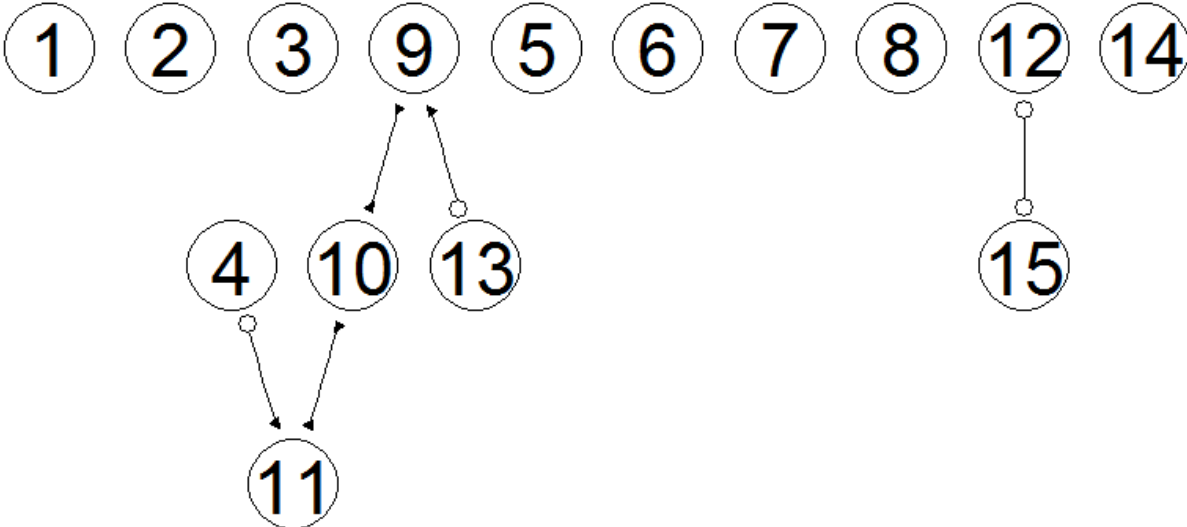


## SQLite-1-10

```
[13] "SQLITE_OMIT_SHARED_CACHE"
```

"SQLITE\_OMIT\_XFER\_OPT"

```
"readseq"
```

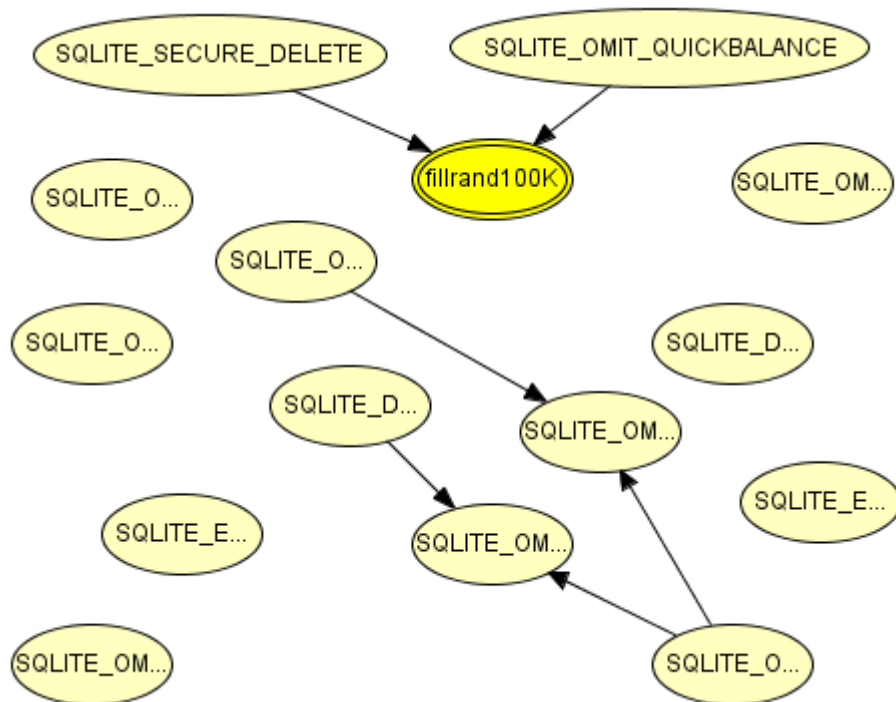
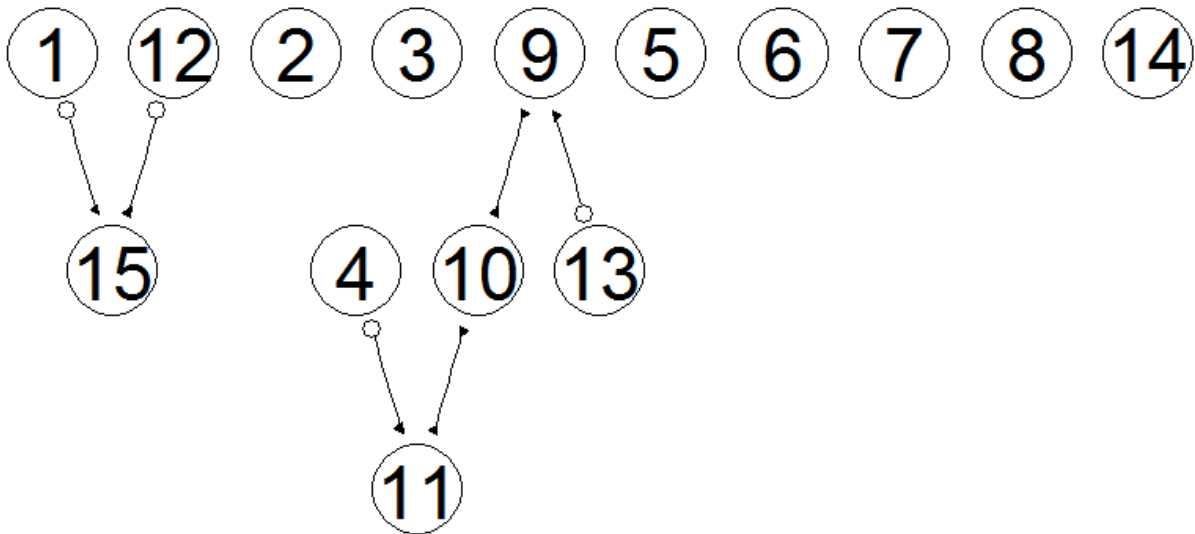


### SQLite-1-11

[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"fillrand100K"

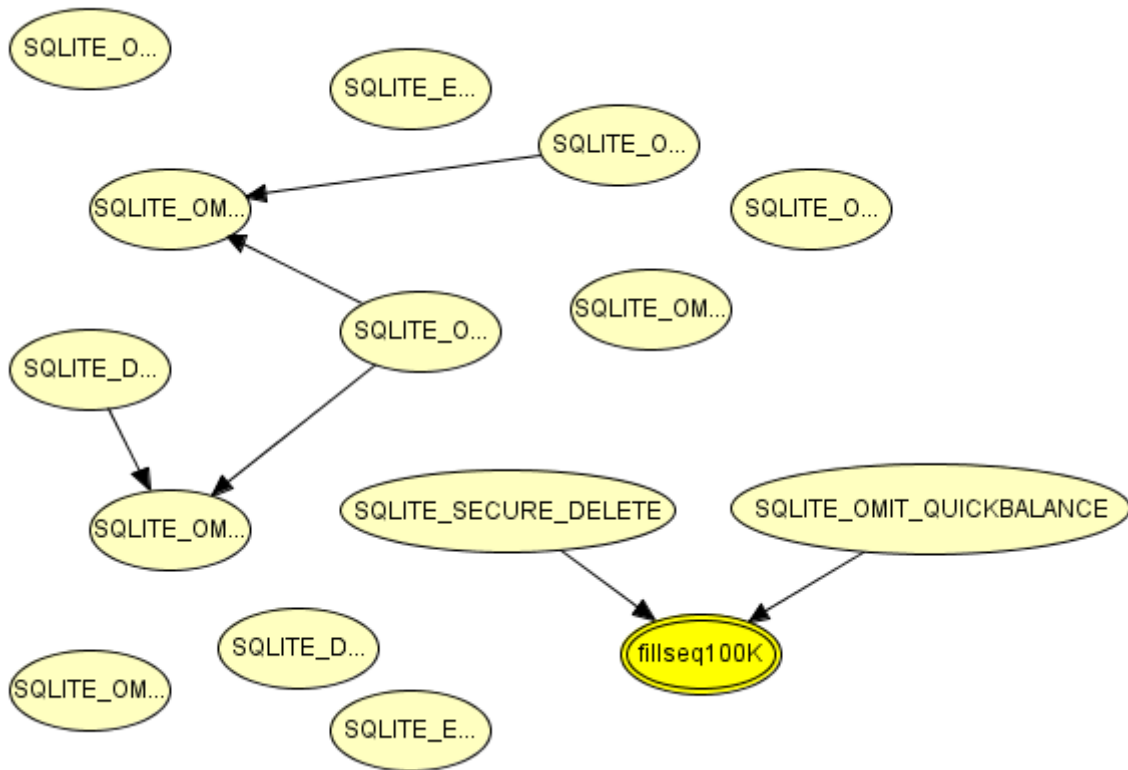
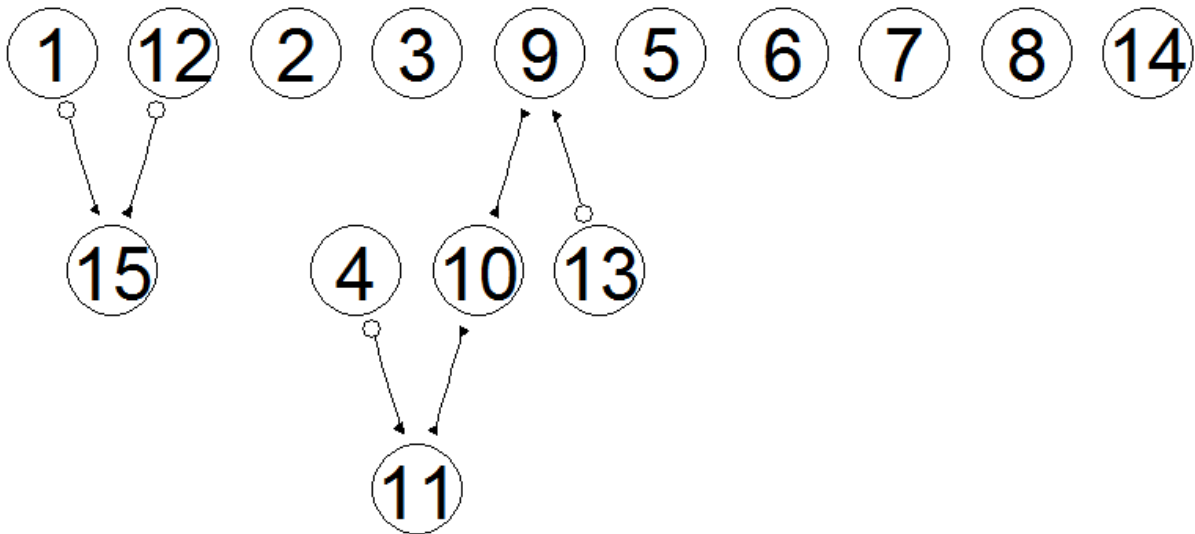


### SQLite-1-12

[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"fillseq100K"

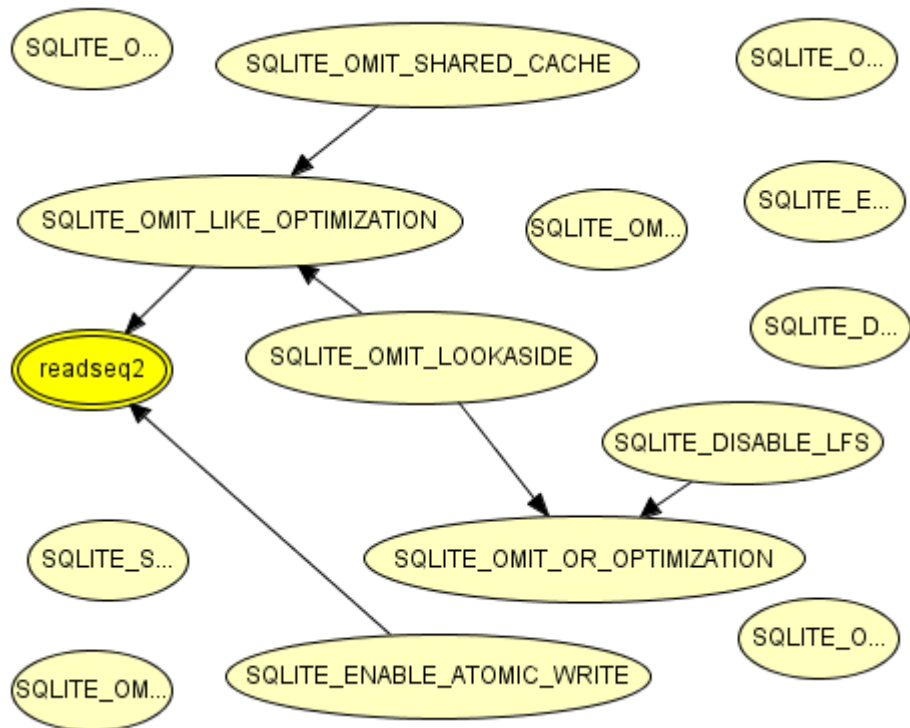
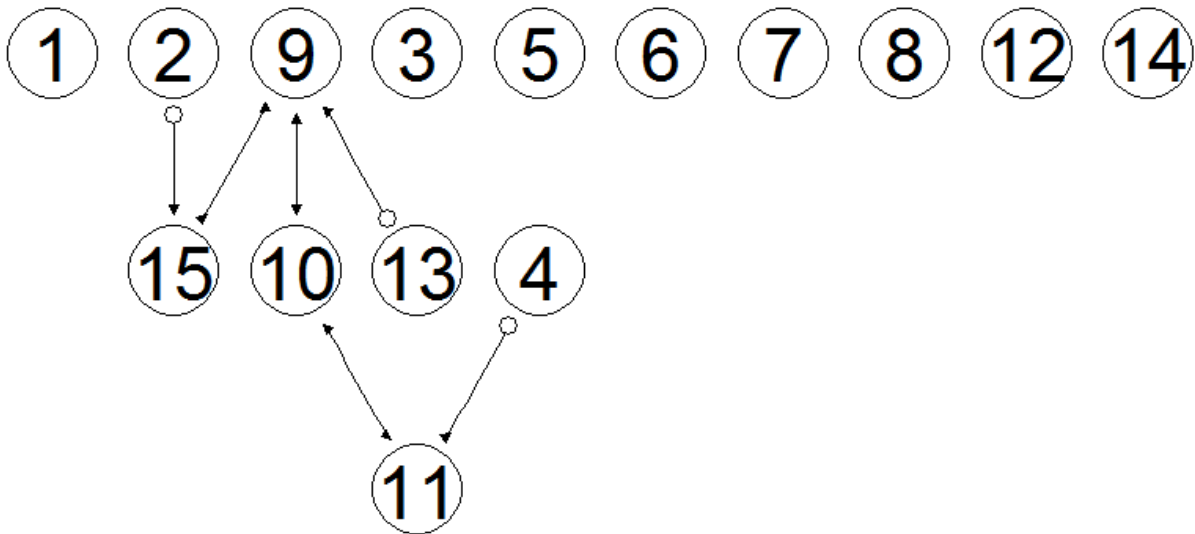


### SQLite-1-13

[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"readseq2"



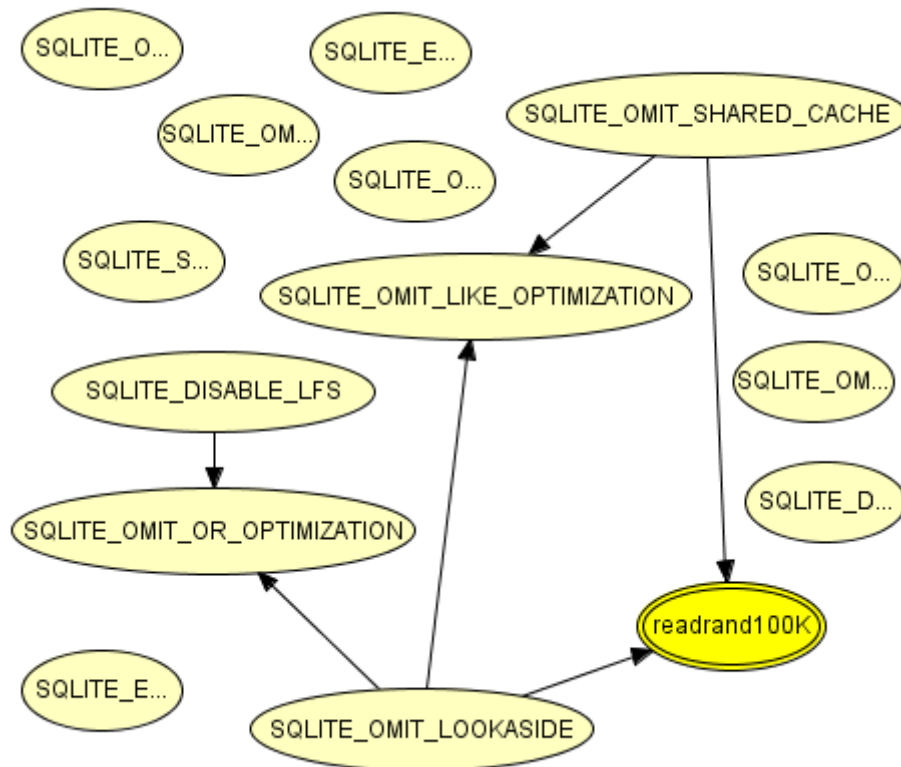
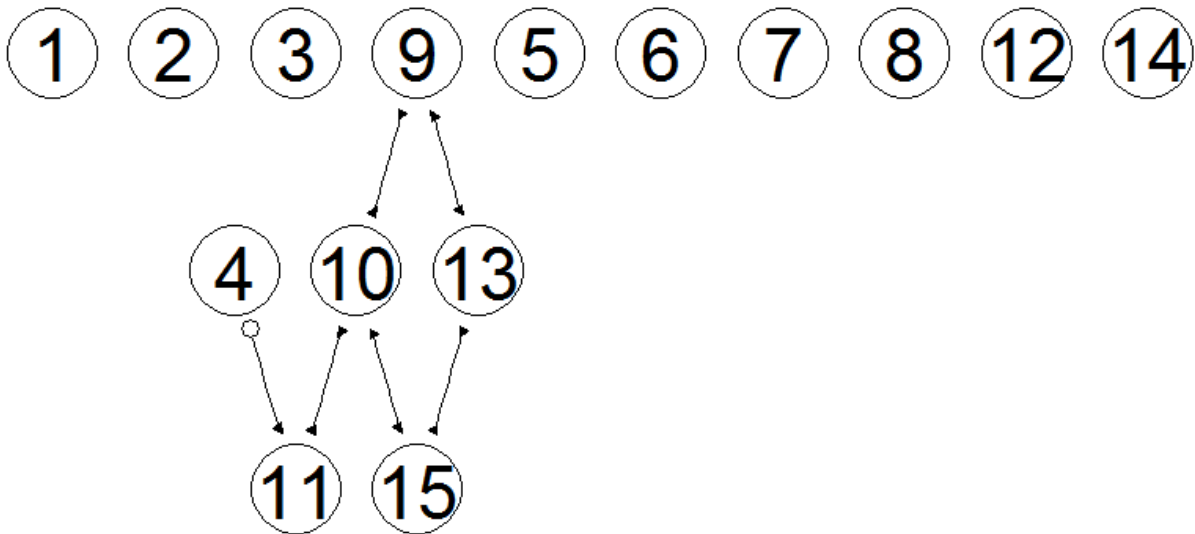


### SQLite-1-14

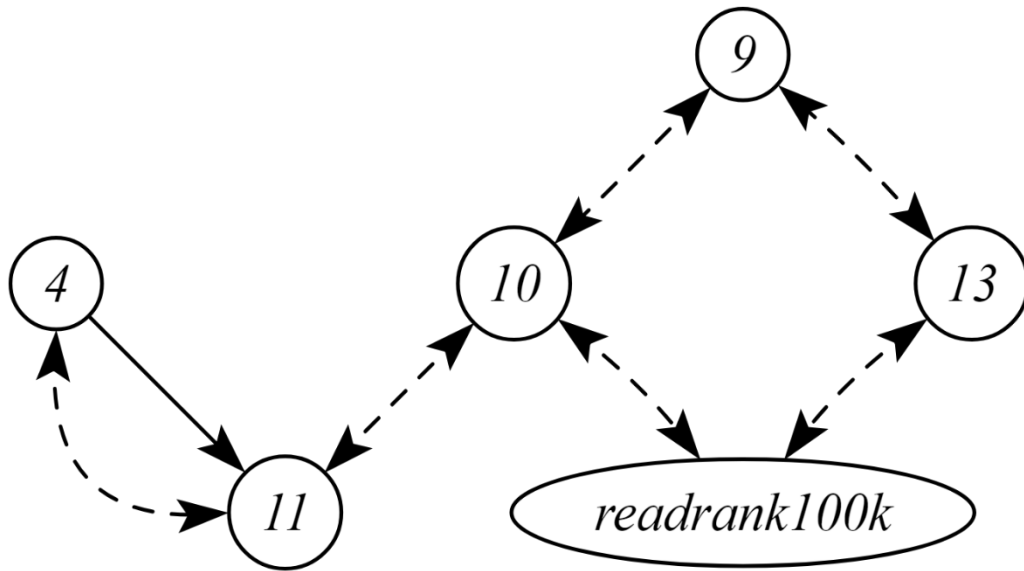
[13] "SQLITE\_OMIT\_SHARED\_CACHE"

"SQLITE\_OMIT\_XFER\_OPT"

"readrand100K"



## Identifiability



1

$$I_9^*(readrank100k) = I^{**}(readrank100k)$$



Load

Estimation

Derivation

Remove

Derivation in Do-Calculus

Expand All Collapse All

$$\vdash I_9^*(readrank100k) \quad (1)$$

$$P^*(readrank100k)$$

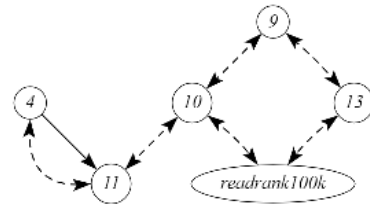
$$\text{Rule 3: } (9 \perp readrank100k)_{G_6} \quad (2)$$

Finally we get:  $P^*(readrank100k)$

Subgraph:

$G$

☐ Show non active nodes/edges



## Transportability

$$P_{4*}(readrank100k) = P_*(readrank100k)$$