代码模块设计：此时 代码是否需要反向设计

(场景1):条件对比key值 ，当key值不存在old表时，直接执行insert 操作

条件为where 9999-12-31

当事件触发时：

UPDATE QL\_RULE\_CHECK\_NOPASS\_RESULT PARTITION(RULE\_ID = '1') R

SET UNPASS\_END\_TIME = '2017-03-21'

WHERE R.UNPASS\_END\_TIME = '9999-12-31'

AND NOT EXISTS (SELECT 1

FROM (sql) TT

WHERE TT.PK\_OBJ\_ID = R.PK\_OBJ\_ID);

INSERT INTO QL\_RULE\_CHECK\_NOPASS\_RESULT PARTITION

(RULE\_ID = '1')

SELECT PK\_OBJ\_ID,

ORG\_CODE,

SHOW\_COL\_01,

SHOW\_COL\_02,

SHOW\_COL\_03,

SHOW\_COL\_04,

SHOW\_COL\_05,

SHOW\_COL\_06,

SHOW\_COL\_07,

SHOW\_COL\_08,

SH OW\_COL\_09,

SHOW\_COL\_10,

SHOW\_COL\_11,

SHOW\_COL\_12,

SHOW\_COL\_13,

SHOW\_COL\_14,

SHOW\_COL\_15,

SHOW\_COL\_16,

SHOW\_COL\_17,

SHOW\_COL\_18,

SHOW\_COL\_19,

SHOW\_COL\_20,

'2017-03-21' AS UNPASS\_BEGIN\_TIME,

'9999-12-31' AS UNPASS\_END\_TIME

FROM ( 传进来的sql) TT

WHERE NOT EXISTS (SELECT 1

FROM QL\_RULE\_CHECK\_NOPASS\_RESULT Q

WHERE Q.RULE\_ID = TT.RULE\_ID

AND Q.PK\_OBJ\_ID = TT.PK\_OBJ\_ID

AND Q.UNPASS\_END\_TIME = '9999-12-31');

unpass\_begin\_time

unpass\_end\_time

select '16' as rule\_id,

B1.PK\_OBJ\_ID1 as PK\_OBJ\_ID,

B1.QC\_ORGCODE as org\_code,

B1.LEAVE\_FACTORY\_DATE as show\_col\_01,

B1.BASE\_VOLTAGE\_ID as show\_col\_02,

B1.ASSET\_STATE as show\_col\_03,

B1.DEVICE\_NAME as show\_col\_04,

B1.DEVICE\_CODE as show\_col\_05,

B1.DEVICE\_MODEL as show\_col\_06,

B1.LOW\_VOL\_RATED\_LITTLE\_SCC as show\_col\_07,

dev\_maintain\_dept as show\_col\_08,

B1.dev\_maintain\_unit as show\_col\_09,

--B1.MANUFACTURER as show\_col\_01,

B1.IS\_CAPITAL\_ASSETS as show\_col\_10,

B1.PLANT\_TRANSFER\_DATE as show\_col\_11,

maintain\_group as show\_col\_12,

FULL\_PATH as show\_col\_13,

null as show\_col\_14,

null as show\_col\_15,

null as show\_col\_16,

null as show\_col\_17,

null as show\_col\_18,

null as show\_col\_19,

null as show\_col\_20

from (select T.ID AS PK\_OBJ\_ID1,

(select b.org\_code

from top\_organization b

where t.VINDICATE\_OID = b.org\_id) as QC\_ORGCODE,

t.LEAVE\_FACTORY\_DATE /\*as 出厂年月\*/,

t.BASE\_VOLTAGE\_ID /\*as 电压等级\*/,

t.ASSET\_STATE /\*as 设备当前状态\*/,

t.DEVICE\_NAME /\*as 设备名称\*/,

t.DEVICE\_CODE /\*as 设备身份编码\*/,

t.DEVICE\_MODEL /\*as 设备型号\*/,

A.LOW\_VOL\_RATED\_LITTLE\_SCC,

(select bo.org\_name

from top\_organization bo

where t.BUREAU\_UNITS\_OID = bo.org\_id) as dev\_maintain\_unit,

t.MANUFACTURER /\* as 生产厂家\*/,

t.IS\_CAPITAL\_ASSETS /\* as 是否资产级设备\*/,

t.PLANT\_TRANSFER\_DATE /\* as 投运日期\*/,

t.RUNMANAGE\_OID,

VINDICATE\_OID,

top1.org\_name as dev\_maintain\_dept,

top2.org\_name as maintain\_group,

d2.FULL\_PATH,

row\_number() OVER(PARTITION BY T.ID ORDER BY DEVICE\_CODE) RN

from DM\_DEVICE t

join DM\_CLASSIFY c

on t.classify\_id = c.id

LEFT join DM\_A\_TRANSFORMER A

on t.ID = A.ID

left join top\_organization top1

ON 1 = 1

and (t.RUNMANAGE\_OID like '%' || top1.org\_id || '%')

left join top\_organization top2

ON 1 = 1

and (t.VINDICATE\_OID like '%' || top2.org\_id || '%')

left join temp\_fl\_dm d2

ON (t.ID = d2.ASSET\_ID)

where A.HIGHT\_LOW\_LOAD\_WASTAGE >= HIGH\_VOL\_RATED\_CAPACITY /\*判断条件\*/

and t.classify\_id = '13169' /\*类别ID\*/

and (t.IS\_ASSAMBLY != 1 or t.IS\_ASSAMBLY is null) /\*判断是否逻辑组件（1：是；2：否）\*/

and (t.IS\_VIRTUAL\_DEVICE != 1 or IS\_VIRTUAL\_DEVICE is null) /\*判断是否是虚拟设备（1：是；2：否）\*/

and t.ASSET\_STATE in (1, 8) /\*判断投运状态为运行（运行：1）\*/

and T.POWER\_GRID\_FLAG = 1 /\*判断电网类型为主网（主网：1，配网：2）\*/

and exists (SELECT 1

FROM temp\_fl\_dm fl

WHERE T.ID = fl.asSET\_ID

AND fl.asSET\_STATE IN (1, 8)

AND fl.RUNNING\_STATE IN (1, 8))) B1

where B1.RN = 1

select pk\_obj\_id , org\_code, show\_col\_01, show\_col\_02, show\_col\_03, show\_col\_04, show\_col\_05, show\_col\_06,"

+ " show\_col\_07, show\_col\_08, show\_col\_09, show\_col\_10, show\_col\_11, show\_col\_12, show\_col\_13, show\_col\_14, show\_col\_15"

+ ", show\_col\_16, show\_col\_17, show\_col\_18, show\_col\_19, show\_col\_20 from (" + sql

+ ")";

需求：

Old数据：

1 9999-12-31

2 2017-03-20（已经修改过）

3 9999-12-31

4 2017-03-10（已经修改过）

5 9999-12-31

New 数据（新入库）：

2(重新新增 135修改)

1(1需要新增,当2已经修改以后，235都需要修改end\_time)

2

全量执行，保留历史数据：（场景方案设计）（匹配条件为key值与end＿time是否为9999）

场景1： 由于old表里面没有6，故6入库old表时，时间end\_time 改为9999-12-31

直接执行insert操作

场景2：新入库的数据中有12，所以还要分两种情况：

A:由于old表中的2 已经修改过，当新入库的数据中有2时，匹配条件为

Key值相等，end\_time也不为9999，所以需要把end\_time修改为9999-12-31(新增)

B:由于old表中1为最新，新入库的数据也有1，但是匹配条件end\_time为9999，所以end\_time无需修改

场景3：由于新入库的数据中没有345，所以还要分两种情况：

A：新入库的4 ，由于在old表中，已经修改过，且end\_time不为9999，所以无需改动

B：old表中的35 当前的end\_time为9999，新入库的数据没有这两行数据，所以需要把end\_time改为sysdate

结果表入库：

//查询入库 存在则更改 不存在则入库

merge into ql\_ql\_rule\_check\_nopass\_result

using ( select org\_code,'1' as rule\_id , sum(pass\_cnt) pass\_cnt, sum(nopass\_cnt) nopass\_cnt from (select org\_code, 0 pass\_cnt, count(\*) nopass\_cnt from ql\_rule\_check\_nopass\_result\_par where rule\_id = '1' group by org\_code union all select org\_code, count(\*) pass\_cnt, 0 nopass\_cnt from ql\_rule\_check\_pass\_result\_par where rule\_id ='1' group by org\_code) group by org\_code ) t

on (rule.org\_code =t.org\_code and rule.rule\_id=t.rule\_id)

when matched then

update set rule.check\_pass\_cnt=t.pass\_cnt,rule.check\_nopass\_cnt=t.nopass\_cnt

when not matched then

Insert into ql\_rule\_check\_pass\_result partition(rule\_id='7\_temp') select pk\_obj\_id , org\_code, show\_col\_01, show\_col\_02, show\_col\_03, show\_col\_04, show\_col\_05, show\_col\_06, show\_col\_07, show\_col\_08, show\_col\_09, show\_col\_10, show\_col\_11, show\_col\_12, show\_col\_13, show\_col\_14, show\_col\_15, show\_col\_16, show\_col\_17, show\_col\_18, show\_col\_19, show\_col\_20 from (select '7' as rule\_id,

B1.PK\_OBJ\_ID1 as PK\_OBJ\_ID,

B1.QC\_ORGCODE as org\_code,

B1.LEAVE\_FACTORY\_DATE as show\_col\_01,

B1.BASE\_VOLTAGE\_ID as show\_col\_02,

B1.ASSET\_STATE as show\_col\_03,

B1.DEVICE\_NAME as show\_col\_04,

B1.DEVICE\_CODE as show\_col\_05,

B1.DEVICE\_MODEL as show\_col\_06,

B1.LOW\_VOL\_RATED\_LITTLE\_SCC as show\_col\_07,

dev\_maintain\_dept as show\_col\_08,

B1.dev\_maintain\_unit as show\_col\_09,

B1.MANUFACTURER as show\_col\_01,

B1.IS\_CAPITAL\_ASSETS as show\_col\_10,

B1.PLANT\_TRANSFER\_DATE as show\_col\_11,

maintain\_group as show\_col\_12,

FULL\_PATH as show\_col\_13,

null as show\_col\_14,

null as show\_col\_15,

null as show\_col\_16,

null as show\_col\_17,

null as show\_col\_18,

null as show\_col\_19,

null as show\_col\_20

from (select T.ID AS PK\_OBJ\_ID1,

(select b.org\_code

from top\_organization b

where t.VINDICATE\_OID = b.org\_id) as QC\_ORGCODE,

t.LEAVE\_FACTORY\_DATE /\*as 出厂年月\*/,

t.BASE\_VOLTAGE\_ID /\*as 电压等级\*/,

t.ASSET\_STATE /\*as 设备当前状态\*/,

t.DEVICE\_NAME /\*as 设备名称\*/,

t.DEVICE\_CODE /\*as 设备身份编码\*/,

t.DEVICE\_MODEL /\*as 设备型号\*/,

A.LOW\_VOL\_RATED\_LITTLE\_SCC,

(select bo.org\_name

from top\_organization bo

where t.BUREAU\_UNITS\_OID = bo.org\_id) as dev\_maintain\_unit,

t.MANUFACTURER /\* as 生产厂家\*/,

t.IS\_CAPITAL\_ASSETS /\* as 是否资产级设备\*/,

t.PLANT\_TRANSFER\_DATE /\* as 投运日期\*/,

t.RUNMANAGE\_OID,

VINDICATE\_OID,

top1.org\_name as dev\_maintain\_dept,

top2.org\_name as maintain\_group,

d2.FULL\_PATH,

row\_number() OVER(PARTITION BY T.ID ORDER BY DEVICE\_CODE) RN

from DM\_DEVICE t

join DM\_CLASSIFY c

on t.classify\_id = c.id

LEFT join DM\_A\_TRANSFORMER A

on t.ID = A.ID

left join top\_organization top1

ON 1 = 1

and (t.RUNMANAGE\_OID like '%' || top1.org\_id || '%')

left join top\_organization top2

ON 1 = 1

and (t.VINDICATE\_OID like '%' || top2.org\_id || '%')

left join temp\_fl\_dm d2

ON (t.ID = d2.ASSET\_ID)

where TRIM(RATED\_VOLTAGE\_RATIO) IS NOT NULL /\*判断条件\*/

and t.classify\_id = '13169' /\*类别ID\*/

and (t.IS\_ASSAMBLY != 1 or t.IS\_ASSAMBLY is null) /\*判断是否逻辑组件（1：是；2：否）\*/

and (t.IS\_VIRTUAL\_DEVICE != 1 or IS\_VIRTUAL\_DEVICE is null) /\*判断是否是虚拟设备（1：是；2：否）\*/

and t.ASSET\_STATE in (1, 8) /\*判断投运状态为运行（运行：1）\*/

and T.POWER\_GRID\_FLAG = 1 /\*判断电网类型为主网（主网：1，配网：2）\*/

and exists (SELECT 1

FROM temp\_fl\_dm fl

WHERE T.ID = fl.asSET\_ID

AND fl.asSET\_STATE IN (1, 8)

AND fl.RUNNING\_STATE IN (1, 8))) B1

where B1.RN = 1)

维度查询结果：

select org\_code, sum(pass\_cnt) pass\_cnt, sum(nopass\_cnt) nopass\_cnt

from (select org\_code, 0 pass\_cnt, count(\*) nopass\_cnt

from ql\_rule\_check\_nopass\_result\_par

where rule\_id = '1'

group by org\_code

union all

select org\_code, count(\*) pass\_cnt, 0 nopass\_cnt

from ql\_rule\_check\_pass\_result\_par

where rule\_id = '1'

group by org\_code)

group by org\_code

//查询入库 存在则更改 不存在则入库

merge into ql\_rule\_check\_score rule

using ( select org\_code,'1' as rule\_id , sum(pass\_cnt) pass\_cnt, sum(nopass\_cnt) nopass\_cnt from (select org\_code, 0 pass\_cnt, count(\*) nopass\_cnt from ql\_rule\_check\_nopass\_result\_par where rule\_id = '1' group by org\_code union all select org\_code, count(\*) pass\_cnt, 0 nopass\_cnt from ql\_rule\_check\_pass\_result\_par where rule\_id ='1' group by org\_code) group by org\_code ) t

on (rule.org\_code =t.org\_code and rule.rule\_id=t.rule\_id)

when matched then

update set rule.check\_pass\_cnt=t.pass\_cnt,rule.check\_nopass\_cnt=t.nopass\_cnt

when not matched then

insert (rule\_id,org\_code,rule\_type,check\_pass\_cnt,check\_nopass\_cnt) values ('1',t.org\_code,'1',t.pass\_cnt,t.nopass\_cnt);

数据质量规则校验轻度汇总表

规则ID char(10) not null,

组织机构编码 char(10)

规则类型 char(10) null,

合格数据量 char(10) null,

不合格数据量 char(10) null,

合格结果表：

select p.rule\_id ,p.org\_code, count(\*) as 'pass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_pass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type;

不合格结果表：

select p.rule\_id ,p.org\_code, count(\*) as 'nopass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_nopass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type;

select a.rule\_id ,a.org\_code, a.pass,b.nopass, a.rule\_type from (select p.rule\_id ,p.org\_code, count(\*) as 'pass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_pass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type ) a inner join (select p.rule\_id ,p.org\_code, count(\*) as 'nopass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_nopass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type) b on a.rule\_id=b.rule\_id;

select a.rule\_id ,a.org\_code, a.rule\_type ,b.pass,a.nopass from (select p.rule\_id ,p.org\_code, count(\*) as 'nopass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_nopass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type) a right join (select p.rule\_id ,p.org\_code, count(\*) as 'pass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_pass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type ) b on a. org\_code =b. org\_code and a.rule\_id =b.rule\_id;

insert into ql\_rule\_check\_score select \*from (select b.rule\_id ,b.org\_code, b.rule\_type ,b.pass,a.nopass from (select p.rule\_id ,p.org\_code, count(\*) as 'nopass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_nopass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type) a right join (select p.rule\_id ,p.org\_code, count(\*) as 'pass',c.rule\_type as 'rule\_type' from ql\_rule\_check\_pass\_result\_par p,ql\_rule\_cfg c where p.rule\_id=c.rule\_id group by p.org\_code , p.rule\_id,c.rule\_type ) b on a. org\_code =b. org\_code and a.rule\_id =b.rule\_id);

select org\_code,

rule\_id,

rule\_type,

sum(pass\_cnt) pass\_cnt,

sum(nopass\_cnt) nopass\_cnt

from (select org\_code, c.rule\_id, c.rule\_type, 0 pass\_cnt, count(\*) nopass\_cnt

from ql\_rule\_check\_nopass\_result\_par p,ql\_rule\_cfg c

group by org\_code, c.rule\_id, c.rule\_type

union all

select org\_code, rule\_id, rule\_type, count(\*) pass\_cnt, 0 nopass\_cnt

from ql\_rule\_check\_pass\_result\_par

group by org\_code, rule\_id, rule\_type)

group by org\_code, rule\_id,rule\_type;

select t.org\_code,t.rule\_id,c.rule\_type,t.pass\_cnt,t.nopass\_cnt from (select org\_code,

rule\_id,

sum(pass\_cnt) pass\_cnt,

sum(nopass\_cnt) nopass\_cnt

from (select org\_code, rule\_id, 0 pass\_cnt, count(\*) nopass\_cnt

from ql\_rule\_check\_nopass\_result\_par

group by org\_code, rule\_id

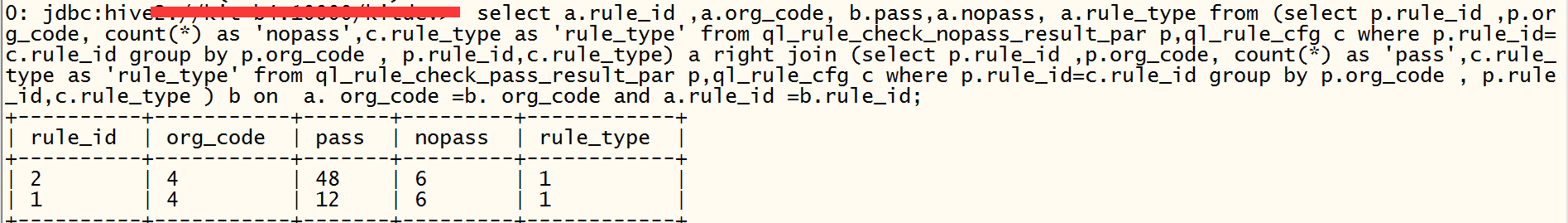
union all

select org\_code, rule\_id, count(\*) pass\_cnt, 0 nopass\_cnt

from ql\_rule\_check\_pass\_result\_par

group by org\_code, rule\_id)

group by org\_code, rule\_id)t,



ql\_rule\_check\_score

select \*from ql\_rule\_check\_pass\_result\_par ;

Insert into kitdev.ql\_rule\_check\_pass\_result\_par partition(rule\_id='2\_temp') select table\_name, pk\_obj\_id , org\_code from (

select '1' AS RULE\_ID,

'DM\_A\_TRANSFORMER' AS TABLE\_NAME,

A.ID AS PK\_OBJ\_ID,

t.VINDICATE\_OID as ORG\_CODE

from DM\_DEVICE t

join DM\_CLASSIFY c

on t.classify\_id = c.id

join DM\_A\_TRANSFORMER A

on t.ID = A.ID

join (SELECT fl.ASSET\_ID

FROM temp\_fl\_dm fl

WHERE fl.asSET\_STATE IN (1, 8)

AND fl.RUNNING\_STATE IN (1, 8)) temp

on temp.ASSET\_ID = T.ID

where A.LOW\_VOL\_RATED\_LITTLE\_SCC IS NOT NULL

and t.classify\_id = '13169'

and (t.IS\_ASSAMBLY != 1 or t.IS\_ASSAMBLY is null)

and (t.IS\_VIRTUAL\_DEVICE != 1 or IS\_VIRTUAL\_DEVICE is null)

and t.ASSET\_STATE in (1, 8)

and T.POWER\_GRID\_FLAG = 1

)

select a.org\_code,

a.rule\_id,

c.rule\_type,

sum(a.pass\_cnt) pass\_cnt,

sum(a.nopass\_cnt) nopass\_cnt

from (select org\_code, rule\_id, 0 pass\_cnt, count(\*) nopass\_cnt

from ql\_rule\_check\_nopass\_result\_par

group by org\_code, rule\_id

union all

select org\_code, rule\_id, count(\*) pass\_cnt, 0 nopass\_cnt

from ql\_rule\_check\_pass\_result\_par

group by org\_code, rule\_id) a

join ql\_rule\_cfg c on(a.rule\_id = c.rule\_id)

group by a.org\_code,

a.rule\_id,

c.rule\_type;

|  |  |  |  |
| --- | --- | --- | --- |
| 表名 | 数据量(条数) | 表大小(byte) |  |
| DM\_DEVICE | 4907465 | totalSize | 203844466 |  |
| DM\_CLASSIFY | 8908 | totalSize | 571922 |  |
| DM\_A\_TRANSFORMER | 94960 | totalSize | 2092761 |  |
| temp\_fl\_dm | 6306240 | totalSize | 207931953 |  |

共计花费时间 多少毫秒 23281

共计花费时间 多少毫秒22966

共计花费时间 多少毫秒23379

共计花费时间 多少毫秒23134

共计花费时间 多少毫秒23037

共计花费时间 多少毫秒23109

共计花费时间 多少毫秒22942

共计花费时间 多少毫秒22965

共计花费时间 多少毫秒23032

共计花费时间 多少毫秒22956

共计花费时间 多少毫秒22588

共计花费时间 多少毫秒23233

共计花费时间 多少毫秒22948