

通过计划任务将SQL Server字段注释同步到Smartbi

1. 示例场景

一般情况下，在smartbi新建数据源>添加数据库(数据库管理>将表添加到smartbi)后，会同步字段注释到smartbi。

- 1. 示例场景
- 2. 操作步骤
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可是由于SQL Server各个版本查询字段注释的方法差异很大，因此产品一直没有支持SQL Server的同步注释功能。

我们可以通过计划任务实现对某个版本SQL Server的字段注释进行同步。

The screenshot shows the SmartBI application's main interface. On the left is a sidebar with various icons and a search bar. The central area has a title '提升原始数据的价值密度和查询性能, 通过数据集或语义层支持后续数据分析'. Below it is a search bar with 'sql' typed in. A red box highlights a message in the center: '一开始设置数据源后, test表的注释没有被同步到字段别名中'. To the right is a grid of data source icons: MySQL (selected), PostgreSQL, MS SQL Server, Spark SQL, SQL Server2000, and SQL Server2005.

2. 操作步骤

这里以MSSQL 2008R2 为例

1、在【系统运维】->【计划任务】->【任务】创建任务，【任务类型】选择：“定制”，在自定义设置中添加如下代码。

```
importPackage(Packages.smartbi.sdk.service.datasource);
importClass(java.lang.System);
importPackage(Packages.smartbi.freequery.querydata);
importPackage(Packages.smartbi.freequery.repository);
importPackage(Packages.smartbi.freequery.basicdata);
importClass(java.util.List);
importPackage(Packages.smartbi.state);
importPackage(Packages.smartbi.fake);
importPackage(Packages.smartbi.usermodel);

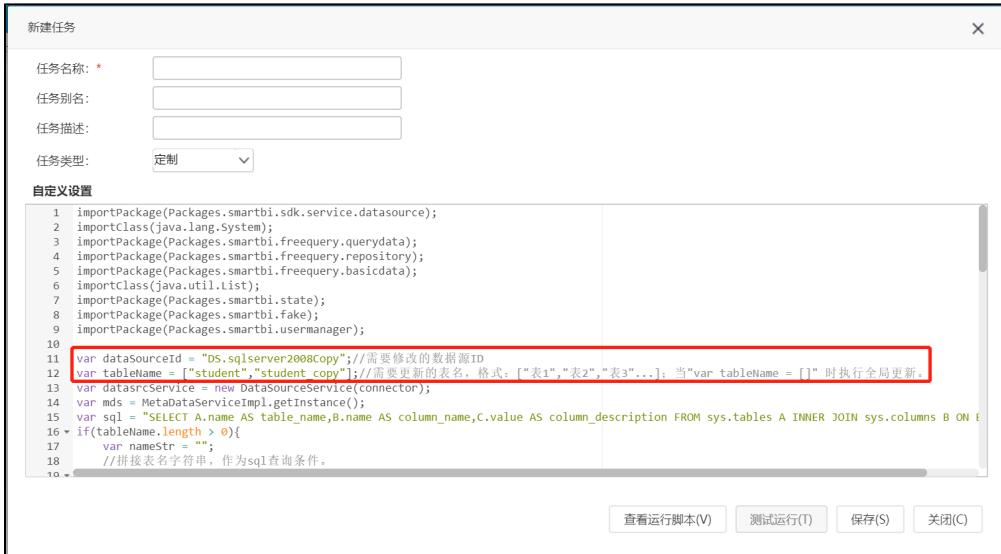
var dataSourceId = "DS.sqlserver2008Copy";//ID
var tableName = ["student","student_copy"]//["1","2","3"...]"var tableName = []
var datasrcService = new DataSourceService(connector);
var mds = MetaDataServiceImpl.getInstance();
var sql = "SELECT A.name AS table_name,B.name AS column_name,C.value AS column_description FROM sys.tables A
INNER JOIN sys.columns B ON B.object_id = A.object_id LEFT JOIN sys.extended_properties C ON C.major_id = B.
object_id AND C.minor_id = B.column_id";
if(tableName.length > 0){
    var nameStr = "";
    //sql
    for (var i = 0; i < tableName.length; i++){
        if(i == 0)
            nameStr = ""+tableName[i] + "!";
        else
            nameStr += ", " + tableName[i]+!;
    }
}
```

```

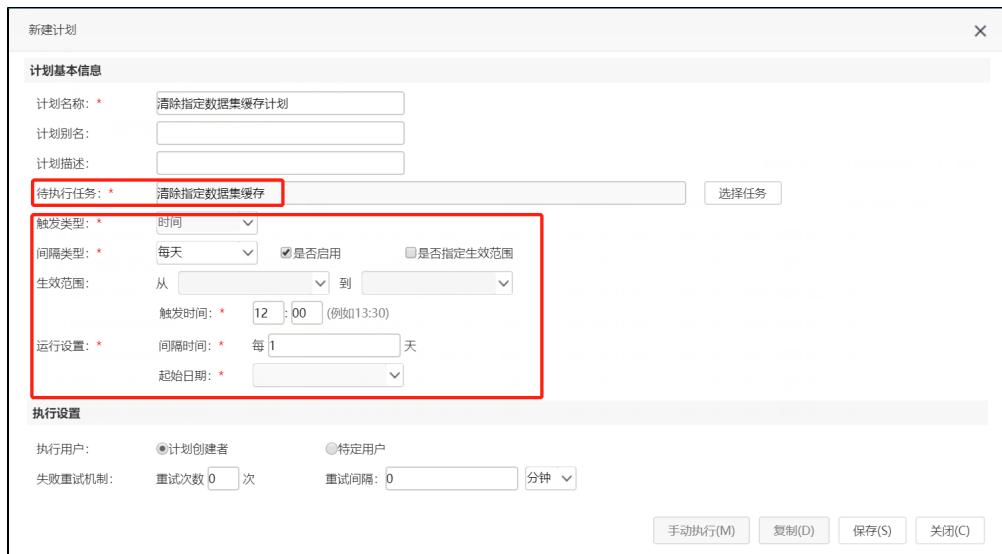
        sql += " WHERE A.name in (" + nameStr + ")";
    }
    //sql
    var gridDataGroup = datasrcService.executeNoCacheable(dataSourceId, sql);
    System.out.println(": "+gridDataGroup.getRowsCount());
    var dataSource = mds.getDataSource(dataSourceId);
    var tables = dataSource.getTables();
    //
    var req = new FakeHttpRequest();
    StateModule.getInstance().setRequest(req);
    StateModule.getInstance().setSession(req.getSession());
    req.getSession().setAttribute("state", new State());
    StateModule.getInstance().setCurrentUser(UserManagerModule.getInstance().getUserByName("admin"));
    //
    for (var i = 0; i < gridDataGroup.getRowsCount(); i++) {
        var hasUpdateOneField = false;
        //
        var tableName = gridDataGroup.get(i, 0).getValue();
        var fieldName = gridDataGroup.get(i, 1).getValue();
        var fieldAlias = gridDataGroup.get(i, 2).getValue();
        if(fieldAlias && !"".equals(fieldAlias)){
            for(var j = 0 ; j < tables.size() ; j++){
                var table = tables.get(j);
                if(table.getName().equals(tableName)){
                    var fields = table.getFields();
                    for(var k = 0 ; k < fields.size() ; k++){
                        var field = fields.get(k);
                        if(field.getName().equals(fieldName) && !fieldAlias.equals(field.getAlias())){
                            field.setAlias(fieldAlias);
                            hasUpdateOneField = true;
                            try{
                                mds.updateField(field,true); //
                            }catch(e){
                                //fieldName
                                field.setAlias(fieldAlias+"_"+fieldName);
                                mds.updateField(field,true); //
                            }
                            break;
                        }
                    }
                }
            }
        }
        if(hasUpdateOneField){
            break;
        }
    }
}
}

```

2、修改下图中红色框的配置项，保存并测试运行。即可同步MSSQL 2008R2 的字段注释到smartbi。



3、在左边资源树上的【系统运维】->【计划任务】->【计划】中新建一个计划，设置待执行任务为刚刚创建的任务，并设置计划运行的周期，如下图：



3. 扩展

为了MSSQL其他版本的查询字段注释语句，我们可以通过修改这个计划任务中的sql语句来同步不同版本的MSSQL字段注释。相应的sql查询语句如下：（需要根据实际略微调整语句，再放到这个计划任务中）

(1) MSSQL 2000:

```
select so.name as tableName, sc.name as columnName, sp.value as remarks
from sysobjects so
left outer join syscolumns sc on so.id = sc.id
left outer join sysproperties sp on sc.id = sp.id and sc.colid = sp.smallid
where so.type = 'u' and so.name='$tableName$'
order by so.id, sc.colorder
```

(2) MSSQL 2005:

```
SELECT tableName = D.NAME ,columnName=A.NAME, remarks=ISNULL(G.[VALUE], ' ')  
FROM SYSCOLUMNS A LEFT JOIN SYSTYPES B ON A.XUSERTYPE=B.XUSERTYPE  
INNER JOIN SYSOBJECTS D ON A.ID=D.ID AND D.XTYPE= 'U ' AND D.NAME <> 'DTPROPERTIES '  
LEFT JOIN SYSCOMMENTS E ON A.CDEFAULT=E.ID  
LEFT JOIN sys.extended_properties G ON A.ID=G.major_id AND A.COLID=G.minor_id  
LEFT JOIN sys.extended_properties F ON D.ID=F.major_id AND F.minor_id=0  
where D.NAME='$tableName$'  
ORDER BY A.ID,A.COLORDER
```