Subject: [SOLVED] How to use aliases with SqlExp?
Posted by Patisab on Wed, 12 Sep 2018 06:37:08 GMT
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Hello,

I have a little problem with SqlExp when i want to use an alias for a table used twice in same request. It's something like this :

```
SELECT t1.id, t1.col1, t1.col2, t1.father, t2.col1, t2.col2
FROM table1 AS t1
INNER JOIN table1 AS t2 ON t2.id = t1.father
```

In .sch file i declare this :

```
TABLE_(TABLE1)
 INT_ (ID)   PRIMARY_KEY AUTO_INCREMENT NOT_NULL
 STRING_ (COL1,10)  UNIQUE NOT_NULL INDEX
 STRING_ (COL2,50)
 INT_ (FATHER)   UNIQUE NOT_NULL
END_TABLE
```

The SqlExp used is like this :

```
SQL & Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2),COL2.Of(T2))
.From(TABLE)
.InnerJoin(TABLE).AsTable(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

Compiling send this message :

error: 'T2' was not declared in this scope

Could someone have an idea to solve this problem? Well, i know it is possible to take an other way but i want to use SqlExp... as possible it is

Thank very much for your help.

Best regards

Subject: Re: How to use aliases with SqlExp?
Posted by mirek on Wed, 19 Sep 2018 11:50:03 GMT
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Patisab wrote on Wed, 12 September 2018 08:37Hello,

I have a little problem with SqlExp when i want to use an alias for a table used twice in same

request. It's something like this :

```
SELECT t1.id, t1.col1, t1.col2, t1.father, t2.col1, t2.col2
FROM table1 AS t1
INNER JOIN table1 AS t2 ON t2.id = t1.father
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 STRING_ (COL2,50)
 INT_ (FATHER)   UNIQUE NOT_NULL
END_TABLE
```

The SqlExp used is like this :

```
SQL & Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2),COL2.Of(T2))
.From(TABLE)
.InnerJoin(TABLE).AsTable(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

Compiling send this message :

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Could someone have an idea to solve this problem? Well, i know it is possible to take an other way but i want to use SqlExp... as possible it is

Thank very much for your help.

Best regards

Well, obviously, being an identified in C++ code, it has to be declared somewhere.

For schema IDsthe magic trick is done by that '_' after the type name (STRING_). This says "And also declare this as SqlId variable".

If you are using ID that is not in .sch file, you have to declare it yourself, e.g.

```
SqlId T1("T1");
```

as there is some repetition (you have to type T1 twice), there is also a macro that can be used for the same purpose

```
SQLID(T1);
```

Alternatively, it is even possible to use C literal instead

COL1.Of("T2")

Last hint: There is a relatively recently added alternative to 'As', operator(), which is especially useful it you are reading more columns from single table:

Select(TABLE(ID ,COL1, COL2), T2(COL1, COL2))

(unfortunately, you cannot use "T2" here, you have to declare it as SQLID).

Mirek

Subject: Re: How to use aliases with SqlExp?
Posted by Patisab on Fri, 21 Sep 2018 09:08:55 GMT
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Good morning Mirek,

When i declare the alias T2 for table T1 as an other ID (with SqlId or with SQLID macro i have compiling errors. This

```
SqlId T2("T1");
SQL & Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2),COL2.Of(T2))
.From(TABLE)
.InnerJoin(TABLE).AsTable(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

results

error: 'class Upp::SqlSet' has no member named 'On'

and that

```
SqlId T2("T1");
SQL & Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2),COL2.Of(T2))
.From(TABLE)
.InnerJoin(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

results

note: crosses initialization of 'Upp::SqlId T2'

Sorry, i probably not understand your explanations

Best regards.

Subject: Re: How to use aliases with SqlExp?
Posted by mirek on Fri, 21 Sep 2018 09:51:38 GMT
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Patisab wrote on Fri, 21 September 2018 11:08Good morning Mirek,

When i declare the alias T2 for table T1 as an other ID (with SqlId or with SQLID macro i have compiling errors. This

```
SqlId T2("T1");
SQL & Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2),COL2.Of(T2))
.From(TABLE)
.InnerJoin(TABLE).AsTable(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

results

error: 'class Upp::SqlSet' has no member named 'On'

and that

```
SqlId T2("T1");
SQL & Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2),COL2.Of(T2))
.From(TABLE)
.InnerJoin(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

results

note: crosses initialization of 'Upp::SqlId T2'

Sorry, i probably not understand your explanations

Best regards.

Ah, sorry I have missed improper use of AsTable. That has a little bit different meaning... (see https://www.ultimatepp.org/srcSqlSqlExp_en-us.html)

Try this:

```
SqlId T2("T2");
SQL &  Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2 ),COL2.Of(T2))
.From(TABLE)
.InnerJoin(TABLE.As(T2)).On(ID.Of(T2) == FATHER.Of(TABLE));
```

or this:

```
SqlId T2("T2");
SQL & Select(TABLE(ID ,COL1, COL2), T2(COL1, COL2))
.From(TABLE)
.InnerJoin(TABLE.As(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

BTW, I think you will also need to alias T2.COL1, T2.COL2 to retrieve proper values after fetch...

```
SqlId T2("T2");
SQL & Select(TABLE(ID ,COL1, COL2), T2(COL1.As("T2_COL1"), COL2.As("T2_COL2")))
.From(TABLE)
.InnerJoin(TABLE.As(T2).On(ID.Of(T2) == FATHER.Of(TABLE));
```

Subject: [SOLVED] How to use aliases with SqlExp?
Posted by Patisab on Mon, 24 Sep 2018 10:26:31 GMT
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Hi Mirek,

Your ideas are right. I have good results with this :

```
SqlId T2("T2");
SQL &
Select(ID.Of(TABLE),COL1.Of(TABLE),COL2.Of(TABLE),COL1.Of(T2).As("COL1T2"),COL2.Of(T
2).As("COL2T2"))
.From(TABLE)
.InnerJoin(TABLE.As(T2)).On(ID.Of(T2) == FATHER.Of(TABLE));
```

Thank you very much, Mister Fabulous
