

RE: INSTEAD OF DELETE Trigger

Source:

<http://www.tech-archive.net/Archive/SQL-Server/microsoft.public.sqlserver.programming/2005-02/2409.html>

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See this example. You will get three resultsets, one from "select * from t1", another from the statement inside the trigger (select * from deleted) and the last one from the second "select * from t1 where colA > 0" (this one will be an empty resultset because all rows were deleted by the io trigger).

```
use northwind
go
```

```
create table t1 (
colA int not null identity(1, 1) unique,
)
go
```

```
create trigger tr_t1_io_del on t1
instead of delete
as
delete t1
select * from deleted as d
go
```

```
insert into t1 default values
insert into t1 default values
insert into t1 default values
go
```

```
select * from t1
go
```

```
delete t1 where colA = 2
go
```

```
select * from t1 where colA > 0
go
```

```
drop table t1
go
```

AMB

"mekim" wrote:

> *Hi Alejandro & Hugo,*
>
> *Ok – I'll try to explain as clear as possible*
>
> *The Problem:*
> *I have a TableQueue that Queues records that when I delete those records*
> *from TableQueue I need to do some work*
>
> *The Solution:*
> *in the "DELETE INSTEAD OF" trigger I "do some work" and then delete the*
> *records from TableQueue that are shown via the "deleted" table*
>
> *The Puzzle: :-)*
> *It actually appears to work correctly – HOWEVER – and it's a BIG HOWEVER – I*
> *don't understand why the "Delete TableQueue" only deletes the records in the*
> *"deleted" table and not all the records...*
>
> *You and Hugo CERTAINLY know what you are doing – so I'm even more puzzled*
> *since you both clearly say it that "DELETE TableQueue" in a "DELETE INSTEAD*
> *OF" trigger should delete all the records and not just the ones in the*
> *"deleted" table ...I don't know if this is a bug or undocumented feature or*
> *whatever.*
>
> *Best Regards,*
> *Mekim*
>
> *p.s. Plz ignore the original "SELECT * FROM TableQueue" ...that was just*
> *plain silly apparently :-)*
>
> *"Alejandro Mesa" wrote:*
>
> > *Mekin,*
> >
> > *What are you trying to accomplish?, Let us know and may be something comes out.*
> >
> > *AMB*
> >
> > *"mekim" wrote:*
> >
> > > *Well...Apparently – as I would expect may I add :-)* you are right
> > >
> > > *HOWEVER...*
> > >
> > > *DELETE Table1*
> > >
> > > *Only deletes the records originally set to delete in Table1 and not ALL the*
> > > *rows...the extra "SELECT * FROM deleted d" was doing exactly ---> nothing :)*

> > >
> > > *This is NOT what I would expect – or is it? Plz remember that this is being*
> > > *run within the INSTEAD OF DELETE trigger*
> > >
> > > *I can not find any documentation that shows this feature*
> > >
> > > *Does this make any sense?*
> > >
> > > *Best Regards,*
> > > *Mekim*
> > >
> > >
> > > *"Alejandro Mesa" wrote:*
> > >
> > > > *In the DELETE INSTEAD OF trigger...."DELETE Table1 SELECT * FROM deleted d"*
> > > > *seems to delete just the rows that are in "SELECT * FROM deleted d"*
> > > >
> > > > *Not really. It is deleting all rows from Table1 and returning a resultset*
> > > > *(rows that were supposed to be deleted) to the client app. SQL server is*
> > > > *processing two sentences instead one.*
> > > >
> > > > *1 – delete table1*
> > > > *2 – select * from deleted d*
> > > >
> > > >
> > > > *AMB*
> > > >
> > > > *"mekim" wrote:*
> > > >
> > > > > *Hi Alejandro,*
> > > > >
> > > > > *That's just it...all the rows are NOT being deleted...which is*
> > > > > *correct...since it's suppose to do just that...just the ones that were*
> > > > > *"suppose" to be deleted...*
> > > > >
> > > > > *In the DELETE INSTEAD OF trigger...."DELETE Table1 SELECT * FROM deleted d"*
> > > > > *seems to delete just the rows that are in "SELECT * FROM deleted d"*
> > > > >
> > > > > *What appears to be the only downside is that a resultset is sent back to QA*
> > > > > *...which is not big deal...but that's extra unnecessary traffic.*
> > > > >
> > > > > *Best Regards,*
> > > > > *Mekim*
> > > > >
> > > > >
> > > > > *Best Regards,*
> > > > > *Mekim*
> > > > >
> > > > > *"Alejandro Mesa" wrote:*
> > > > >
> > > > > > *Mekin,*

>>>>>
>>>>> *If you do not use the WHERE clause, then all rows will be deleted.*
>>>>>
>>>>> *CREATE TRIGGER Table1_InsteadOfDeleteTrigger*
>>>>> *ON dbo.Table1*
>>>>> *INSTEAD OF DELETE*
>>>>> *as*
>>>>> *DELETE Table1*
>>>>> *from deleted*
>>>>> *go*
>>>>>
>>>>> *you have to tell sql server which rows.*
>>>>>
>>>>> *CREATE TRIGGER Table1_InsteadOfDeleteTrigger*
>>>>> *ON dbo.Table1*
>>>>> *INSTEAD OF DELETE*
>>>>> *as*
>>>>> *DELETE Table1*
>>>>> *from deleted*
>>>>> *where table1.colA = deleted.colA*
>>>>> *go*
>>>>>
>>>>>
>>>>> *AMB*
>>>>>
>>>>>
>>>>> *"mekim" wrote:*
>>>>>
>>>>> *> Hi Alejandro,*
>>>>>
>>>>> *> That works as well & without the return from "SELECT * FROM deleted d" into QA*
>>>>>
>>>>> *> HOWEVER – Table1 is very large – and I was "assuming" that avoiding the*
>>>>> *> "where d.pkcol = table1.pkcol" would speed things up*
>>>>>
>>>>> *> I don't see the benefit of adding the Where clause – but then again – I'm*
>>>>> *> not sure that's it's not needed either.*
>>>>>
>>>>> *> Best Regards,*
>>>>> *> Mekim*
>>>>>
>>>>>
>>>>>
>>>>> *> "Alejandro Mesa" wrote:*
>>>>>
>>>>> *> Try,*
>>>>>
>>>>> *> CREATE TRIGGER Table1_InsteadOfDeleteTrigger*
>>>>> *> ON dbo.Table1*
>>>>> *> INSTEAD OF DELETE*
>>>>> *> as*

```
>>>>>>>>> DELETE Table1
>>>>>>>>> where exists(SELECT * FROM deleted d where d.pkcol = table1.pkcol)
>>>>>>>>> go
>>>>>>>>>
>>>>>>>>>
>>>>>>>>> AMB
>>>>>>>>>
>>>>>>>>> "mekim" wrote:
>>>>>>>>>
>>>>>>>>> Hi All,
>>>>>>>>>
>>>>>>>>> I am writing my first "INSTEAD OF DELETE" trigger and what I need to do is
>>>>>>>>> delete the actual records that would have been deleted if not for the
>>>>>>>>> "INSTEAD OF DELETE"
>>>>>>>>>
>>>>>>>>> My question is that when I run a trigger I get back a result set in QA (I'm
>>>>>>>>> not even sure if that matters) and was wondering if there is a better/quicker
>>>>>>>>> way than I am doing it – it seems too straight forward for me to have gotten
>>>>>>>>> it right :- )
>>>>>>>>>
>>>>>>>>> the trigger code is listed below
>>>>>>>>>
>>>>>>>>> Best Regards
>>>>>>>>> Mekim
>>>>>>>>>
>>>>>>>>> CREATE TRIGGER Table1_InsteadOfDeleteTrigger
>>>>>>>>> ON dbo.Table1
>>>>>>>>> INSTEAD OF DELETE
>>>>>>>>> as
>>>>>>>>> DELETE Table1 SELECT * FROM deleted d
>>>>>>>>>
>>>>>>>>>
>>>>>>>>>
```