
Subject: PostgreSQL: serious mistake when call GetInsertedId()

Posted by [sergeynikitin](#) on Tue, 30 Sep 2014 22:24:57 GMT

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In a function body of GetInsertedId() it is supposed that the field name of primary key will always have the name id.

```
Value PostgreSQLConnection::GetInsertedId() const
{
    Sql sql("select currval('" + last_insert_table + "_id_seq")", session);
    if(sql.Execute() && sql.Fetch())
        return sql[0];
    else
        return Null;
}
(uppsrc/PostgreSQL/PostgreSQL.cpp)
```

But in a case when it not so, becomes difficult an audible error.

SQL expression for request of a column of primary key here:

```
SELECT
    pg_attribute.attname,
    format_type(pg_attribute.atttypid, pg_attribute.atttypmod)
FROM pg_index, pg_class, pg_attribute
WHERE
    pg_class.oid = 'TABLENAME'::regclass AND
    indrelid = pg_class.oid AND
    pg_attribute.attrelid = pg_class.oid AND
    pg_attribute.attnum = any(pg_index.indkey)
    AND indisprimary
```

Respectively I suggest to modify function. For example so:

```
Value PostgreSQLConnection::GetInsertedId() const
{
    String sqlc_expr;
    sqlc_expr <<
    "SELECT " <<
    "pg_attribute.attname " <<
    "FROM pg_index, pg_class, pg_attribute " <<
    "WHERE " <<
    "pg_class.oid = " << last_insert_table << "::regclass AND " <<
    "indrelid = pg_class.oid AND " <<
    "pg_attribute.attrelid = pg_class.oid AND " <<
    "pg_attribute.attnum = any(pg_index.indkey) " <<
    "AND indisprimary" ;
    Sql sqlc( sqlc_expr );
    if( !(sqlc.Execute() && sqlc.Fetch()) )
```

```
return Null;
Sql sql("select currval('" + last_insert_table + "_" +AsString(sqlc[0])+ "_seq")", session);
if(sql.Execute() && sql.Fetch())
    return sql[0];
else
    return Null;
}
```

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()

Posted by [mirek](#) on Wed, 01 Oct 2014 18:37:21 GMT

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Well, it was "by design" (as it is a good common practice to name numeric synthetic primary keys "ID" anyway), but your solution is definitely better.

But I would/will add caching because the column for given table does not change....

Mirek

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()

Posted by [mirek](#) on Wed, 01 Oct 2014 18:49:23 GMT

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Like this:

```
Value PostgreSQLConnection::GetInsertedId() const
{
    String pk = session.pkache.Get(last_insert_table, Null);
    if(IsNull(pk)) {
        String sqlc_expr;
        sqlc_expr <<
        "SELECT " <<
        "pg_attribute.attname " <<
        "FROM pg_index, pg_class, pg_attribute " <<
        "WHERE " <<
        "pg_class.oid = " << last_insert_table << "::regclass AND "
        "indrelid = pg_class.oid AND "
        "pg_attribute.attrelid = pg_class.oid AND "
        "pg_attribute.attnum = any(pg_index.indkey) "
        "AND indisprimary";
        Sql sqlc( sqlc_expr );
        pk = sqlc.Execute() && sqlc.Fetch() ? sqlc[0] : "ID";
        session.pkache.Add(last_insert_table, pk);
    }
}
```

```
Sql sql("select currval("'" + last_insert_table + "'" + pk + "_seq)", session);  
if(sql.Execute() && sql.Fetch())  
    return sql[0];  
else  
    return Null;  
}
```

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()
Posted by [sergeynikitin](#) on Thu, 02 Oct 2014 13:37:46 GMT
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yes, it's better!

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()
Posted by [mirek](#) on Wed, 22 Oct 2014 09:04:13 GMT
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A have changed the code again:

Since 8.1 (released 2005) PGSQL has a nice little function "lastval()", which does exactly the same thing. GetInsertedId now changed to use that.

Mirek
