

FiberQ Plugin

pgAdmin4 Database Configuration Guide

CRS Reset & ID Sequence Management

Table of Contents

1. Introduction
2. Prerequisites
3. Part A: Reset CRS (SRID) to 0
4. Part B: Reset ID Sequences
5. Troubleshooting

1. Introduction

This guide explains how to configure your PostgreSQL/PostGIS database for the FiberQ QGIS plugin. It covers two main tasks:

- **Resetting CRS (SRID) to 0** - Allows the Preview Map to automatically use the same CRS as your QGIS project
- **Resetting ID Sequences** - Fixes ID gaps when elements are deleted and re-added

 **IMPORTANT:** Always backup your database before making changes. These operations modify table structures and cannot be easily undone.

2. Prerequisites

- pgAdmin4 installed and connected to your PostgreSQL server
- Access to the **gis** database with **fiberq** schema
- Database user with ALTER TABLE permissions

3. Part A: Reset CRS (SRID) to 0

When PostGIS tables have SRID=3857 hardcoded, the Preview Map may show coordinate deviation if your QGIS project uses a different CRS (like EPSG:6316 for Serbia). Setting SRID=0 makes tables CRS-agnostic, allowing automatic CRS detection from your project.

Step 3.1: Open Query Tool for fiberq Schema

6. In pgAdmin4, expand: **Servers** → **telecom_postgis** → **Databases** → **gis** → **Schemas** → **fiberq**
7. Right-click on **fiberq** schema
8. Select **Query Tool**

Step 3.2: Check Current SRID Values

First, verify the current SRID settings. Open a new Query Tool on the **gis** database and run:

```
SELECT f_table_name, srid
FROM geometry_columns
WHERE f_table_schema = 'fiberq'
ORDER BY f_table_name;
```

If SRID shows **3857**, proceed with the reset.

Step 3.3: Run ALTER Commands (One by One)

IMPORTANT: Run each command separately. Copy one line, paste in Query Tool, press F5 (Execute), then proceed to the next.

LINestring Tables:

```
ALTER TABLE fiberq."Kablovi_podzemni" ALTER COLUMN geom TYPE geometry(LineString, 0) USING
ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Kablovi_vazdusni" ALTER COLUMN geom TYPE geometry(LineString, 0) USING
ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."PE cevi" ALTER COLUMN geom TYPE geometry(LineString, 0) USING
ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Prelazne cevi" ALTER COLUMN geom TYPE geometry(LineString, 0) USING
ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Trasa" ALTER COLUMN geom TYPE geometry(LineString, 0) USING
ST_SetSRID(geom, 0);
```

POINT Tables:

```
ALTER TABLE fiberq."Nastavci" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."OD ormar" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."OD ormar na stubu" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."OKNA" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."OR" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Opticke_rezerve" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Patch panel" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Prekid vlakna" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Stubovi" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."TO Izvod" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."TO Izvod na stubu" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."TO Izvod u nastavku" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."ZOK" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Spoljašnji OD ormar" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Spoljašnji TO Izvod" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Unutrašnji OD ormar" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

```
ALTER TABLE fiberq."Unutrašnji TO Izvod" ALTER COLUMN geom TYPE geometry(Point, 0) USING ST_SetSRID(geom, 0);
```

POLYGON Tables:

```
ALTER TABLE fiberq."Rejon" ALTER COLUMN geom TYPE geometry(Polygon, 0) USING ST_SetSRID(geom, 0);
```

Step 3.4: Verify Changes

Open Query Tool on the **gis** database (not fiberq schema) and run:

```
SELECT f_table_name, srid
FROM geometry_columns
WHERE f_table_schema = 'fiberq'
ORDER BY f_table_name;
```

Expected Result: All rows should show **srid = 0**

4. Part B: Reset ID Sequences

When you delete elements from the Preview Map, their IDs are not reused. For example, if you delete Manhole ID 35 and add a new one, it gets ID 36. This section explains how to reset sequences to eliminate gaps.

Step 4.1: Reset Sequences to Current Max + 1

This script finds the maximum ID in each table and resets the sequence accordingly. Run this in the **fiberq** schema Query Tool:

```
DO $$
DECLARE
    r RECORD;
    max_id INTEGER;
BEGIN
    FOR r IN
        SELECT table_name FROM information_schema.tables
        WHERE table_schema = 'fiberq' AND table_type = 'BASE TABLE'
    LOOP
        BEGIN
            EXECUTE format('SELECT COALESCE(MAX(id), 0) FROM fiberq.%I', r.table_name)
        INTO max_id;
            EXECUTE format('ALTER SEQUENCE fiberq.%I_id_seq RESTART WITH %s',
r.table_name, max_id + 1);
            RAISE NOTICE 'Reset % to %', r.table_name, max_id + 1;
        EXCEPTION WHEN OTHERS THEN
            RAISE NOTICE 'Skipped %', r.table_name;
        END;
    END LOOP;
END $$;
```

Step 4.2: Reset Individual Table (Optional)

To reset a specific table's sequence manually:

```
-- Step 1: Find max ID
SELECT MAX(id) FROM fiberq."OKNA";

-- Step 2: Reset sequence (if max is 35, set to 36)
ALTER SEQUENCE fiberq."OKNA_id_seq" RESTART WITH 36;
```

Step 4.3: Reset All Sequences to 1 (Empty Tables Only)

⚠ WARNING: Only run this if ALL tables are empty! This resets IDs to start from 1.

```
ALTER SEQUENCE fiberq."Kablovi_podzemni_id_seq" RESTART WITH 1;
ALTER SEQUENCE fiberq."Kablovi_vazdusni_id_seq" RESTART WITH 1;
ALTER SEQUENCE fiberq."OKNA_id_seq" RESTART WITH 1;
ALTER SEQUENCE fiberq."Stubovi_id_seq" RESTART WITH 1;
ALTER SEQUENCE fiberq."Trasa_id_seq" RESTART WITH 1;
-- Add more sequences as needed...
```

5. Troubleshooting

Issue: ALTER TABLE command fails silently

Solution: Check the Messages tab in pgAdmin4 for errors. Run commands one at a time.

Issue: Preview Map still shows wrong positions

Solution: After changing SRID, restart QGIS and reopen Preview Map. Click the "↺ Sync CRS" button to refresh.

Issue: Sequence does not exist

Solution: List all sequences to find the correct name:

```
SELECT sequence_name FROM information_schema.sequences WHERE sequence_schema = 'fiberq';
```

Quick Reference

Task	Run SQL Again?
Change project CRS in QGIS	NO - Preview Map auto-detects
Reset ID sequences after deletions	YES - Run sequence reset
Add new FiberQ table	YES - ALTER new table to SRID=0