Article
Robert Cemper · Jan 2, 2022 3m read

# DB Migration using SQLgateway

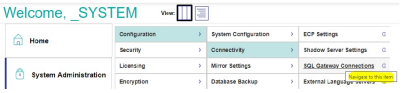
Thanks to @Yuri Marx we have seen a very nice example for DB migration from Postgres to IRIS.
My personal problem is the use of DBeaver as a migration tool.
Especially as one of the strengths of IRIS ( and also Caché) before is the availability of the SQLgateways that allow access to any external Db as long as for them an access usinig JDBC or ODBC is available. So I extended the package to demonstrate this.

It is a classic OEX package with a complete Docker.
The SQLgateway is installed during Docker build and the required jdbcdriver for Linux is included in this repo In order to make this demo faster, the size of tables to migrate have been shrunk a bit.

## How to test

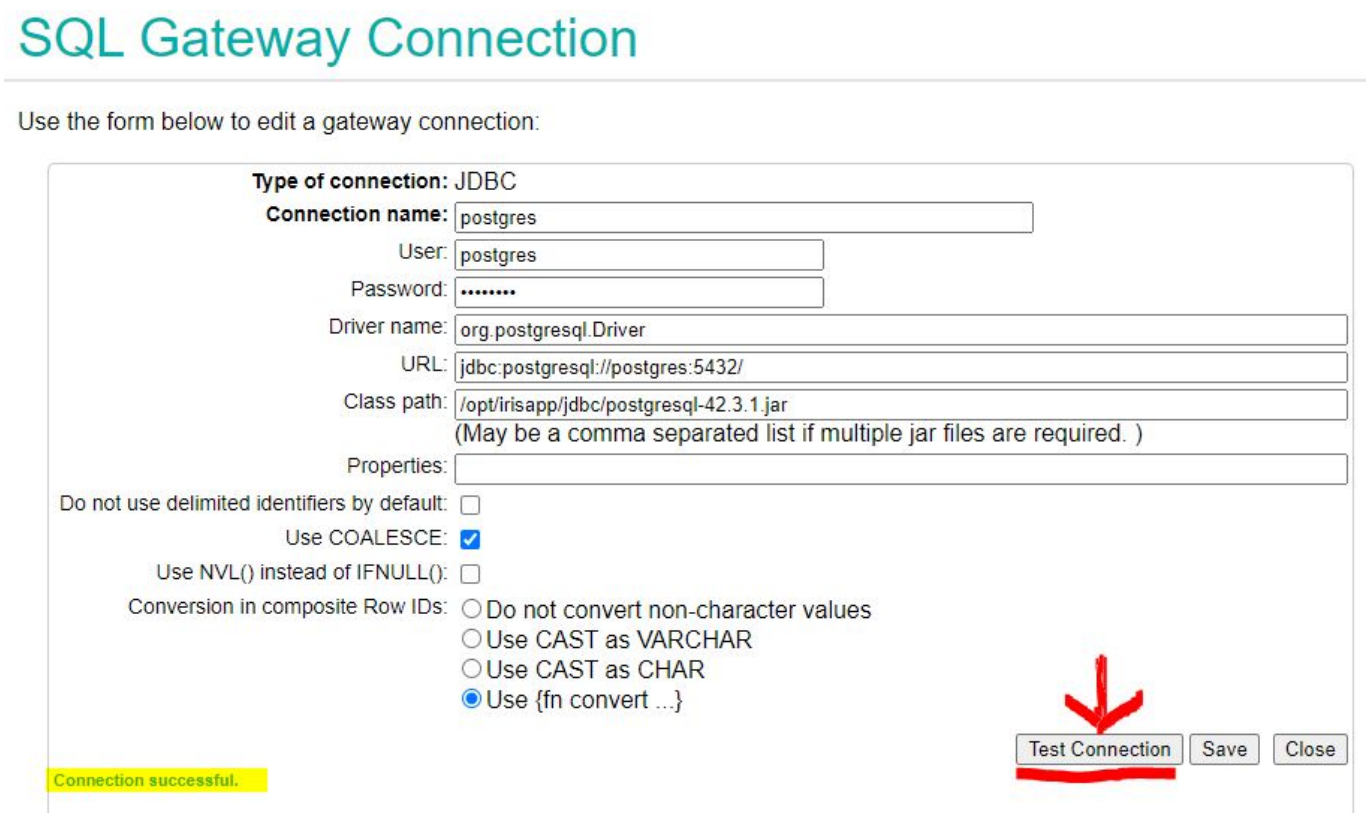
All migration actions can be executed directly from SMP.

1.
Verify the gateway connection in
SMP> Administration> Configuration >Connectivity >SqlGatewayConfiguration



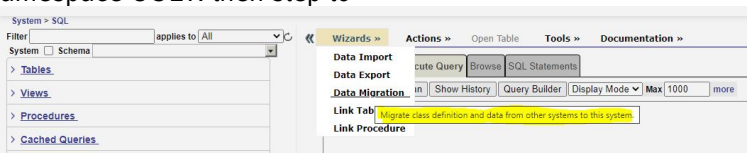

To test Connection click **edit**


and **Test Connection**

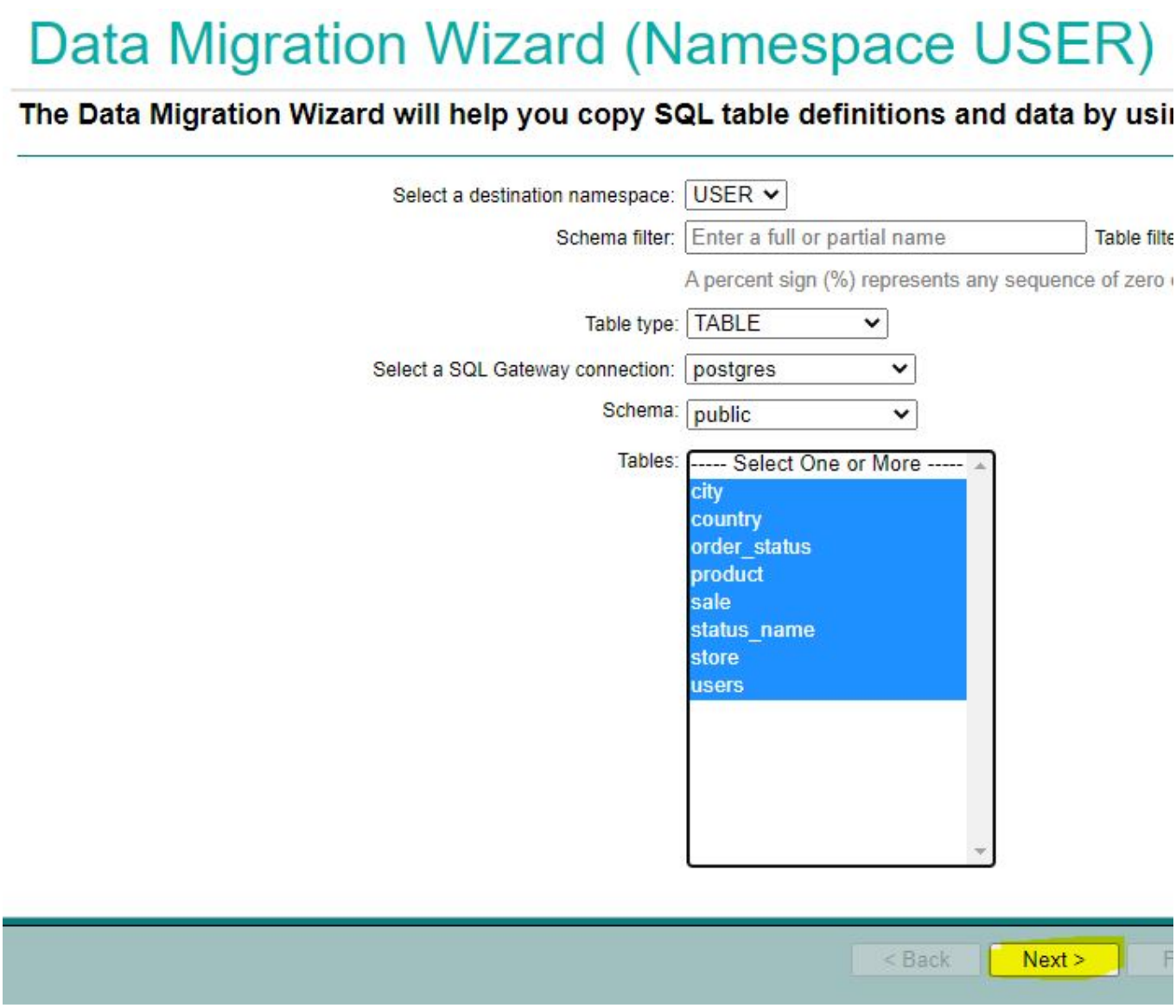



- verify **Connection successful**
- Be patient at this point. Postgres Containers sometimes take quite some time to talk to you.
- Wait a little bit, reload the page in browser and try the test again.

2.
Identifying the source tables. In SMP > Change to Namespace USER then step to
SMP >Explorers >SQL >Wizards > Data Migration

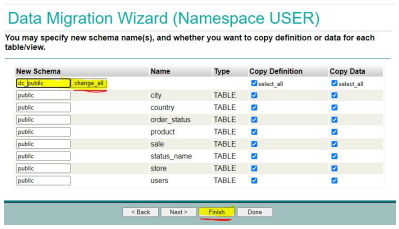



3.
Set required import parameters




- Destination Namespace
- Type = TABLE
- Gateway = postgres >>> now the first connection is established and you select
- Schema = public
- Tables to migrate = all

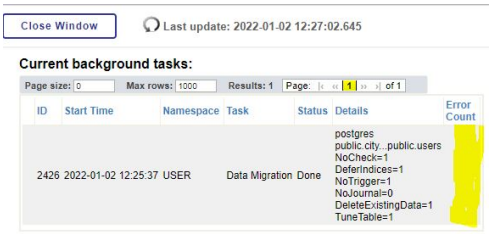
4.
Identify target but change schema to be OEX compatible from **public** to **dcpublic**




- don't forget to click **change all**
- we migrate Definitions and Data so both sides are selected

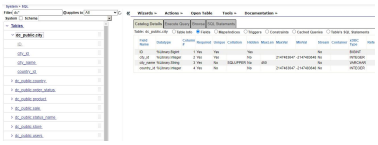
5.
Skipping special settings we use defaults we start the task in background


6.
Now we check the results and see everything was working without Errors



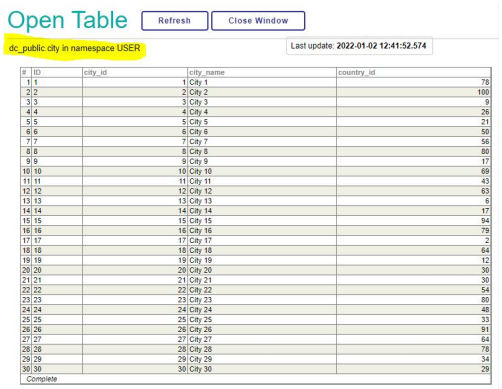

- You might see errors if tables depend on the content not yet migrated.
- And wait for completions until the status shows **Done**

7.
We terminate the Migration Wizzard and return to normal table view filtered by **dc***



- All 8 tables are visible and show meaningful columns

8.
Selecting a table and clicking on **OpenTable** shows reasonable contents




Open Table Refresh Close Window

dc_public.sale in namespace USER

Last update: **2022-01-02 12:57:18.116**

| # | ID | sale_id | amount | date_sale | product_id | user_id | store_id |
|---|---|---|---|---|---|---|---|
| 1 | 2 | a0761ca1-719b-4bc0-9a76-4f2c310e5b65 | 3249.345 | 06/05/2019 20:18:06.214735 | 19 | 227173 | 360 |
| 2 | 3 | 5fe0daea-1fcc-4af7-87a9-389e548cdc6c | 9610.107 | 08/31/2019 08:13:15.672707 | 262 | 106284 | 303 |
| 3 | 4 | 51fa9ce9-b9a6-48de-ab84-4ea9104d747b | 8605.735 | 01/31/2019 16:30:04.2781 | 117 | 25490 | 422 |
| 4 | 5 | f64395f3-6f3e-42c0-9750-13b52d8e9d91 | 5340.493 | 05/03/2019 07:50:09.398723 | 8 | 60640 | 363 |
| 5 | 6 | d5ee34eb-e6b7-4364-b13e-bab0fc56774e | 6803.837 | 11/15/2019 14:19:24.413511 | 274 | 225373 | 106 |
| 6 | 7 | ea4c67ff-6111-49b1-bfdb-27a349e8de2c | 8675.357 | 03/28/2019 07:31:38.920049 | 234 | 52221 | 156 |
| 7 | 8 | 6ad4b406-6135-4a6e-aabc-c5a93021dc76 | 7329.581 | 06/13/2019 09:01:39.499335 | 163 | 95381 | 404 |
| 8 | 9 | 1d5ec4fa-d78d-4959-8002-8ec32bb220e3 | 2608.777 | 04/08/2019 19:33:23.187622 | 58 | 43114 | 457 |
| 9 | 10 | a0be6eb1-5e7f-48b0-82c4-987a3bb2cea3 | 2244.691 | 10/22/2019 21:27:37.973024 | 174 | 130126 | 126 |
| 10 | 11 | 4da07a5f-8706-4f2f-8c7b-1e86ee7ed562 | 2980.329 | 05/25/2019 17:24:58.376043 | 276 | 197371 | 368 |
| 11 | 12 | f597cfef-e27c-4d15-82e5-eff923e4fe56 | 5321.619 | 08/02/2019 18:19:53.805683 | 89 | 114176 | 498 |
| 12 | 13 | e1775f83-40cf-493e-ad97-c31569b7a3de | 2141.334 | 12/27/2019 05:21:23.834163 | 102 | 68660 | 262 |
| 13 | 14 | 93d7eaac-9f91-429e-aee7-4badf24ad4d3 | 7774.936 | 09/19/2019 12:13:15.479316 | 200 | 177053 | 104 |
| 14 | 15 | c5c92f0b-f057-4e35-a69e-f40a010fa4f2 | 5616.166 | 09/20/2019 22:29:13.846402 | 56 | 65308 | 296 |
| 15 | 16 | b7a71959-e6c8-4fd3-b33e-89206cec6f79 | 7224.649 | 05/03/2019 20:19:54.467358 | 196 | 97730 | 419 |
| 16 | 17 | 59b158ed-a3c0-4846-941c-d4ca9d8554cc | 3970.118 | 11/05/2019 08:45:04.906936 | 237 | 235906 | 161 |
| 17 | 18 | d0f9dd93-4dcf-4d3e-bc10-84f5f9e07d4b | 3233.518 | 09/07/2019 03:53:03.221553 | 271 | 19634 | 467 |
| 18 | 19 | 51bec7e8-2402-4e35-9f72-70baaa8c5e76 | 3444.624 | 04/10/2019 11:04:22.86936 | 6 | 155089 | 145 |
| 19 | 20 | 50f415ea-f903-4816-9559-22770e4dda28 | 9268.943 | 01/03/2019 14:34:58.248772 | 140 | 197052 | 151 |
| 20 | 21 | 05f6076f-bfb2-4ae4-97b2-000ade0871e4 | 137.647 | 02/14/2019 17:46:34.40058 | 288 | 25637 | 188 |
| 21 | 22 | 10997c1c-9dc7-40ce-b850-1b354a376f2b | 1973.726 | 11/22/2019 07:26:28.664947 | 220 | 94132 | 478 |
| 22 | 23 | 41b6bc50-043c-4c39-b22e-8bc02e13f852 | 2474.278 | 12/06/2019 05:10:50.654773 | 16 | 152178 | 103 |
| 23 | 24 | 2466ed9e-18bd-45e4-86dc-31057656de4f | 1172.654 | 11/09/2019 10:20:55.203226 | 285 | 20773 | 257 |
| 24 | 25 | 51ea7404-3daf-43d5-a076-7fe189e4b4c2 | 8668.224 | 09/17/2019 11:13:35.441098 | 284 | 38822 | 343 |

9.
A look into the related generated Class Definitions confirms the result and successful completion.

GitHub

#Best Practices #Data Import and Export #Docker #SQL #InterSystems IRIS