***Oracle to PostgreSQL Migration***

***Ora2pg Installation Steps:***

First of all, to compile ora2pg we need on ORACLE\_HOME.

Then we need to compile mandatory dependencies: DBI, DBD-Oracle. If you want ora2pg to connect to a PostgreSQL cluster you will need also : DBI-Pg.

cp -r /produits/oracle/112010/products/perl /produits/oracle/

export PERL5LIB=/produits/oracle/perl/lib:/produits/oracle/perl/lib/site\_perl  
export ORACLE\_HOME=/produits/oracle/112010/products/  
export LD\_LIBRARY\_PATH=/produits/oracle/112010/products/lib  
export PATH=/produits/oracle/perl/bin:$ORACLE\_HOME/bin:$PATH

cd /produits/oracle/ora2pg/DBI-X.XXX  
make clean  
perl Makefile.PL PREFIX=/produits/oracle/perl LIB=/produits/oracle/perl/lib  
make && make install

cd /produits/oracle/ora2pg/DBD-Pg-X.XX.X  
make clean  
perl Makefile.PL PREFIX=/produits/oracle/perl LIB=/produits/oracle/perl/lib  
make && make install

cd /produits/oracle/ora2pg/DBD-Oracle-X.XX  
make clean  
perl Makefile.PL PREFIX=/produits/oracle/perl LIB=/produits/oracle/perl/lib  
make && make install

cd /produits/oracle/ora2pg/ora2pg-XX.X  
make clean  
perl Makefile.PL PREFIX=/produits/oracle/perl LIB=/produits/oracle/perl/lib  
make && make install  
cp /produits/oracle/perl/produits/oracle/112010/products/perl/bin/ora2pg /produits/oracle/perl/bin

#Variables PERL5LIB and PATH are mandatory each time you connect to the machine to execute ora2pg

ora2pg --version

***Migration Steps:***

**Export:**

export PERL5LIB=/produits/admindb/postgres/ora2pg/perl:/produits/admindb/postgres/ora2pg/perl/lib:/produits/admindb/postgres/ora2pg/perl/lib/site\_perl:/produits/admindb/postgres/ora2pg/ora2pg-16.1/lib:$PERL5LIB

export PATH=/produits/admindb/postgres/ora2pg/perl/bin:/produits/admindb/postgres/ora2pg/perl/etc:$PATH

ora2pg -t SHOW\_VERSION -c /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig/pvfepvfe\_ora2pg.conf

ora2pg -t TABLE -o table.sql -b /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig/ -c /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig/pvfepvfe\_ora2pg.conf

ora2pg -t SEQUENCE -o sequences.sql -b /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig -c /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig/pvfepvfe\_ora2pg.conf

ora2pg -t GRANT -o grants.sql -b /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig -c /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig/pvfepvfe\_ora2pg.conf

**Data Export:**

ora2pg -t INSERT -o INSERT\_datas.sql -b /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig -c /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig/pvfepvfe\_ora2pg.conf

OR

ora2pg -t COPY -o COPY\_datas.sql -b /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig -c /produits/admindb/postgres/ora2pg/VFE\_migration/PROD\_VFE\_Mig/pvfepvfe\_ora2pg.conf

**IMPORT:**

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/table.log < table.sql

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/INDEXES\_tables.log < INDEXES\_table.sql

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/CONSTRAINTS\_tables.log < CONSTRAINTS\_table.sql

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/sequences.log < sequences.sql

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/self\_drop\_constraint.log < drop\_constraint.sql

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/add\_constraint.log < add\_constraint.sql

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/object\_count.log < object\_count.sql

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/copy/copy/COPY\_datas.log < COPY\_datas.sql

OR

psql -h <IP> -p $DBPORT -U vfe -d <db\_name> -L <staging\_directory>/LOG/INSERT\_datas.log < INSERT\_datas.sql

***Post-Migration Checks:***

select current\_database();

**Finding the constraints:**

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SELECT (case when c.relkind = 'r' then 'TABLE'

when c.relkind = 'i' then 'INDEX'

when c.relkind = 'S' then 'SEQUENCE' end), count(\*)

FROM pg\_class c, pg\_roles r

WHERE c.relowner = r.oid

and r.rolname = 'role\_app\_vfe'

and c.relkind <> 't'

group by c.relkind;

SELECT relname, (case when c.relkind = 'r' then 'TABLE'

when c.relkind = 'i' then 'INDEX'

when c.relkind = 'S' then 'SEQUENCE' end) as "object\_type"

FROM pg\_class c, pg\_roles r

WHERE c.relowner = r.oid

and r.rolname = 'role\_app\_vfe'

and c.relkind <> 't'

order by relname, "object\_type";

**DBA Query For Object Count:**

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SELECT

n.nspname as schema\_name

,CASE c.relkind

WHEN 'r' THEN 'table'

WHEN 'v' THEN 'view'

WHEN 'i' THEN 'index'

WHEN 'S' THEN 'sequence'

WHEN 's' THEN 'special'

END as object\_type

,count(1) as object\_count

FROM pg\_catalog.pg\_class c

LEFT JOIN pg\_catalog.pg\_namespace n ON n.oid = c.relnamespace

WHERE c.relkind IN ('r','v','i','S','s') and n.nspname='vfe'

GROUP BY n.nspname,

CASE c.relkind

WHEN 'r' THEN 'table'

WHEN 'v' THEN 'view'

WHEN 'i' THEN 'index'

WHEN 'S' THEN 'sequence'

WHEN 's' THEN 'special'

END

ORDER BY n.nspname,

CASE c.relkind

WHEN 'r' THEN 'table'

WHEN 'v' THEN 'view'

WHEN 'i' THEN 'index'

WHEN 'S' THEN 'sequence'

WHEN 's' THEN 'special'

END;