

PostgreSQL As Data Integration Tool

PostgreSQL SQL-MED

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SQL/MED

First defined in [ISO/IEC 9075-9:2008](#), revised by [ISO/IEC 9075-9:2016](#)

Supported by

DB2

MariaDB

With CONNECT storage engine,
implementation differs to the standard

PostgreSQL



Implementation

Foreign Data Wrapper

Read only

Read and write

Installation as extensions



Available FDW

Examples:

Oracle (pgxn.org)

MS SQL Server / Sybase ASE
read-only (pgxn.org)

MongoDB([GitHub](https://github.com))

MariaDB / MySQL (pgxn.org)

SQLite
read-only ([GitHub](https://github.com))

Hadoop (HDFS)
read-only ([GitHub](https://github.com))

ODBC ([GitHub](https://github.com))

There is another one on [PGXN](https://pgxn.org), which isn't in active development

Apache Kafka
read-only ([GitHub](https://github.com))



Special FDW

file_fdw

postgres_fdw

foreign_table_exposer

Some BI systems have problems with foreign tables, that extension solves that



Write your own FDW

Multicorn

Use Python and Multicorn to write your own
and access lots of stuff like

IMAP

HTML



Data source

The example data used in the live data part is available from [Chinook Database](#):

PostgreSQL

CSV

SQLite



Chinook Tables

	T tablename
1	Artist
2	Invoice
3	Employee
4	Customer
5	Playlist
6	InvoiceLine
7	Album
8	Genre
9	PlaylistTrack
10	MediaType
11	Track

	T table_name	T column_name	T data_type
1	Artist	ArtistId	integer
2	Artist	Name	character varying (120)

	T table_name	T column_name	T data_type
1	Album	AlbumId	integer
2	Album	Title	character varying (160)
3	Album	ArtistId	integer

	T table_name	T column_name	T data_type
1	Track	TrackId	integer
2	Track	Name	character varying (200)
3	Track	AlbumId	integer
4	Track	MediaTypeId	integer
5	Track	GenreId	integer
6	Track	Composer	character varying (220)
7	Track	Milliseconds	integer
8	Track	Bytes	integer
9	Track	UnitPrice	numeric

	GenreId	T Name
1	1	Rock
2	2	Jazz
3	3	Metal
4	4	Alternative & Punk
5	5	Rock And Roll
6	6	Blues
7	7	Latin
8	8	Reggae
9	9	Pop
10	10	Soundtrack
11	11	Bossa Nova
12	12	Easy Listening
13	13	Heavy Metal
14	14	R&B/Soul
15	15	Electronica/Dance



Live Data examples



Link List

Slide and source on Github:

<https://github.com/sjstoelting/talks/>

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