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## See Sierra in a New Way with Tableau

Stephanie Church

*Case Western Reserve University, sap68@case.edu*

Author(s) ORCID Identifier:

 [Stephanie Church](#)

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# SEE SIERRA IN A NEW WAY WITH TABLEAU

*Stephanie Church*  
*Acquisitions Librarian*  
*Case Western Reserve University*

OH-IUG 2019





# TABLEAU

## DATA VISUALIZATION SOFTWARE



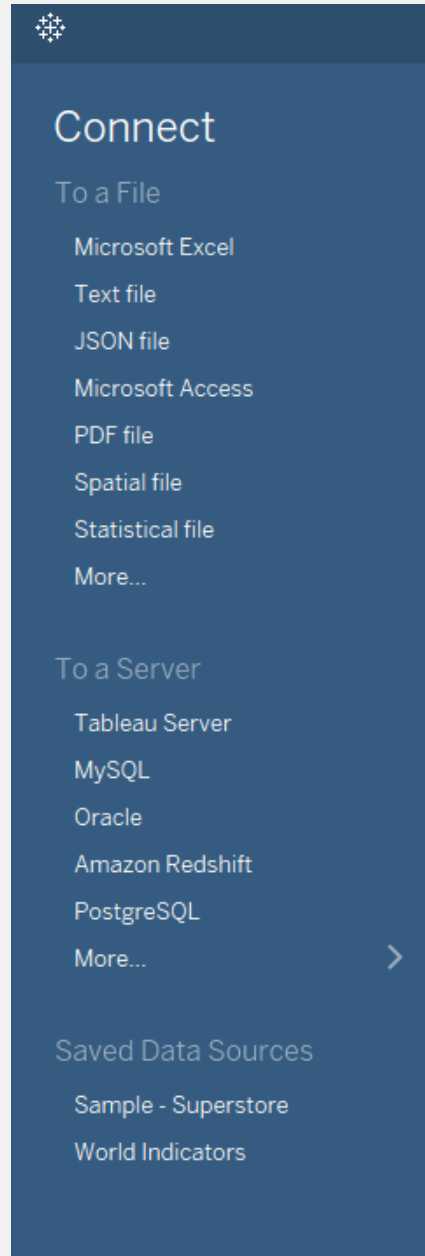




# CONNECT

*Sierra and Tableau*

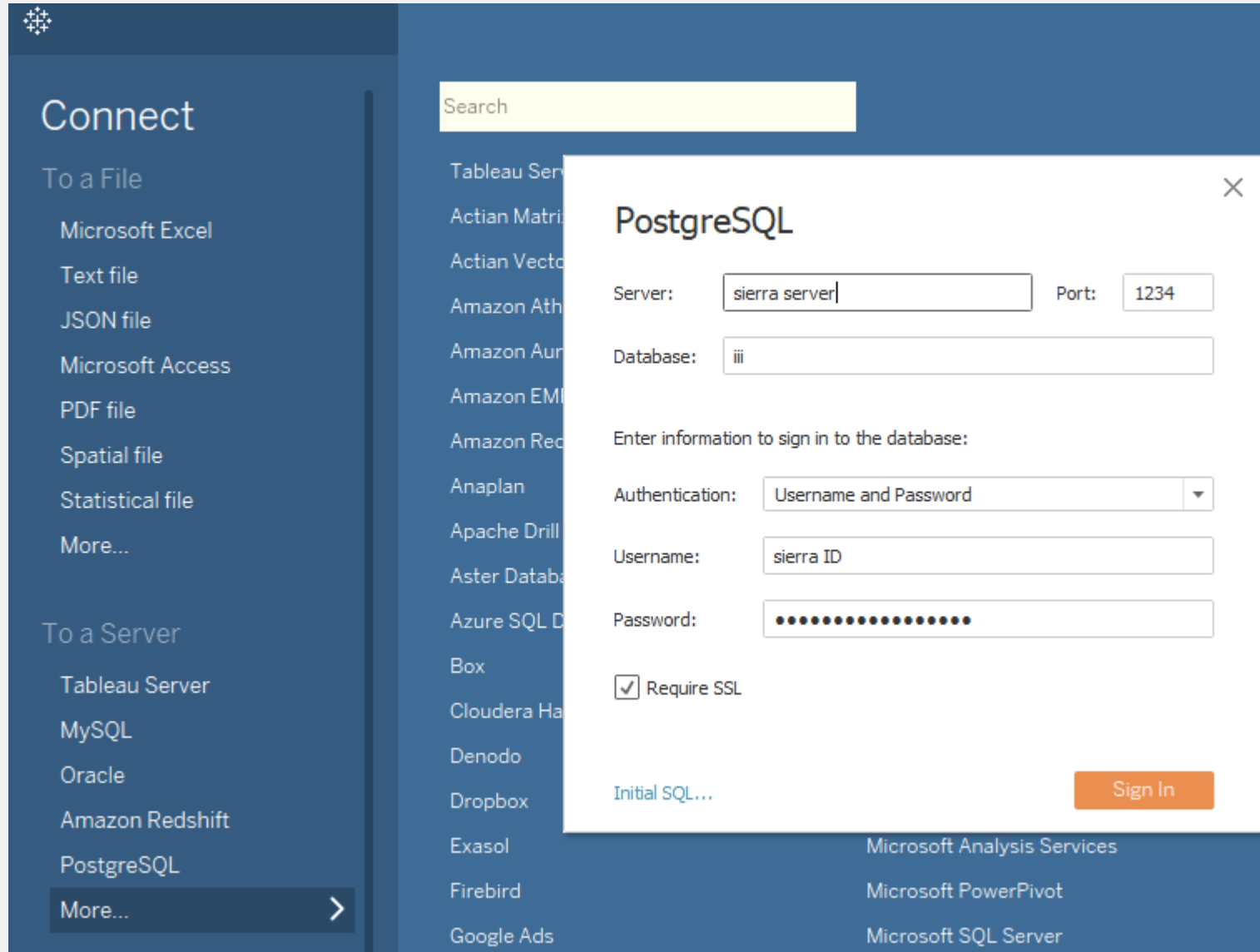
# CONNECT



*Open Tableau  
Desktop*



# CONNECT



**Connect:**  
*To a Server*

**Select:**  
*PostgreSQL*

**Enter:**  
*Server address*  
*Port*  
*Database name*  
*Authentication information*

# CONNECT

The screenshot displays the Tableau 'CONNECT' interface. On the left, the 'Connections' pane shows a connection to 'sierra-db.case.edu' (PostgreSQL). Below it, the 'Database' pane shows the 'iii' database. The 'Table' pane lists various tables, including connector tables, accounting transactions, and units. On the right, a large white area contains the text 'Drag tables here' in orange. Below this area, a 'Sort fields' dropdown menu is set to 'Data source order'. At the bottom, the 'Data Source' pane shows 'Sheet 1' and some icons.

Connections Add

sierra-db.case.edu  
PostgreSQL

Database  
iii

Table ⌵

- \_connector (articles.\_connector)
- \_connector\_facet (articles.\_connector\_facet)
- \_connector\_param\_attr (articles.\_connector\_param\_attr)
- \_facet (articles.\_facet)
- \_global\_connector\_param\_attr (articles.\_global\_connector\_param\_attr)
- \_limit (articles.\_limit)
- \_resource (articles.\_resource)
- \_resource\_limit (articles.\_resource\_limit)
- account (articles.account)
- account\_access\_homelib (articles.account\_access\_homelib)
- account\_access\_netlogin (articles.account\_access\_netlogin)
- account\_access\_ptype (articles.account\_access\_ptype)
- account\_connector (articles.account\_connector)
- account\_hyperlinks\_name (articles.account\_hyperlinks\_name)
- accounting\_transaction (iiirecord.accounting\_transaction)
- accounting\_transaction (sierra\_view.accounting\_transaction)
- accounting\_transaction\_ill\_expenditure (sierra\_view.accounting\_transaction\_ill\_expenditure)
- accounting\_transaction\_invoice\_encumbrance (si...ew.accounting\_transaction\_invoice\_encumbrance)
- accounting\_transaction\_invoice\_expenditure (sier...view.accounting\_transaction\_invoice\_expenditure)
- accounting\_transaction\_manual\_appropriation (si...ew.accounting\_transaction\_manual\_appropriation)
- accounting\_transaction\_manual\_encumbrance (s...w.accounting\_transaction\_manual\_encumbrance)
- accounting\_transaction\_manual\_expenditure (sie...iew.accounting\_transaction\_manual\_expenditure)
- accounting\_transaction\_order\_cancellation (sierra\_view.accounting\_transaction\_order\_cancellation)
- accounting\_transaction\_order\_encumbrance (sie...iew.accounting\_transaction\_order\_encumbrance)
- accounting\_unit
- accounting\_unit (sierra\_view.accounting\_unit)
- New Custom SQL
- New Union

Drag tables here

Sort fields Data source order

Data Source Sheet 1

*Tableau is now connected to the backend of Sierra*

# CONNECT

sierraDNA

Entities

[Generic Record](#)

[Authority](#)

[Bib](#)

[Contact](#)

[Course](#)

[Holding](#)

[Invoice](#)

[Item](#)

[License](#)

**Order**

[Patron](#)

[Program](#)

[Resource](#)

[Section](#)

[Vendor](#)

[Volume](#)

[Users](#)

Transactions

[Acquisitions](#)

[Circulation](#)

Master Data

[Cataloging](#)

[Categorization](#)

[Fund](#)

Order

[acq\\_type\\_property](#)

Each row of acq\_type\_property identifies an acquisitions type code.

Column	Data Type	Not NULL?	Comment
id	int	false	System-generated sequential ID.
code	varchar	false	Acquisitions type code.
display_order	int	false	Integer to manage the display order of a list.

[acq\\_type\\_property\\_myuser](#)

Each row of acq\_type\_property\_myuser identifies an acquisition type (or method of paying for the material, with the definition presented in the lan (English) codes and definitions include:

STD CODE	DEFINITION
p	purchase
x	exchange
d	prepaid
r	recharge
g	gift

Column	Data Type	Not NULL?	Comment
code	varchar	false	Acquisition type code.
display_order	int	false	Integer to manage the display order of a list.
name	varchar	false	Acquisition type name.

*Reference SierraDNA to view table data points and make connections*



# CONNECT

File Data Server Window Help

← → ↻

**Connections** Add

sierra-db.case.edu  
PostgreSQL

**Database**

iii

**Table** 🔍

- behavior\_enum
- behavior\_enum\_validator
- behavior\_enum\_validator\_list
- behavior\_key
- behavior\_map
- behavior\_value
- bib\_level\_property
- bib\_level\_property (sierra\_view.bib\_level\_property)
- bib\_level\_property\_myuser (sierra\_view.bib\_level\_property\_myuser)
- bib\_level\_property\_name
- bib\_level\_property\_name (sierra\_view.bib\_level\_property\_name)
- bib\_record (iiirecord.bib\_record)
- bib\_record (sierra\_view.bib\_record)
- bib\_record\_call\_number\_prefix ...bib\_record\_call\_number\_prefix
- bib\_record\_call\_number\_prefix ...bib\_record\_call\_number\_prefix
- bib\_record\_holding\_record\_link ...bib\_record\_holding\_record\_link
- bib\_record\_holding\_record\_link ...bib\_record\_holding\_record\_link
- bib\_record\_item\_record\_link (iiirecord.bib\_record\_item\_record\_link)
- bib\_record\_item\_record\_link (sierra\_view.bib\_record\_item\_record\_link)
- bib\_record\_link\_view (iiirecord.bib\_record\_link\_view)
- bib\_record\_local\_deletion (iiirecord.bib\_record\_local\_deletion)
- bib record location (iiirecord.bib record location)

bib\_record (sierra\_view.bib\_record) (iii)

bib\_record

Sort fields Data source order ▼

# bib_record Id	# bib_record Record Id	Abc bib_record Language Code	Abc bib_record Bcode1	Abc bib_record Bcode2	Abc bib_record Bcode3	🌐 bib_record Country Code
7600245279111180	7600245279111180	eng	m	a	s	xx
563370862747938	563370862747938	eng	m	a	s	xx
7318770302481679	7318770302481679	eng	m	a	s	xx
6192870395880190	6192870395880190	eng	m	a	s	xx
420908054853	420908054853	eng	m	a	-	dcu
420909855779	420909855779	eng	s	s	-	dcu
281895893469491	281895893469491	eng	m	a	s	xx
420910600960	420910600960	fre	m	3	z	fr
1126320815012986	1126320815012986	eng	m	a	s	xx

*Drag and drop table(s)  
to populate data*

*Use tables with  
(sierra\_view)*

# CONNECT

The screenshot shows the Connect application interface. On the left, there are two connections: 'sierra-db.case.edu PostgreSQL' and 'MARC Language and Country Codes Microsoft Excel'. Below these are two sheets: 'Country Code' and 'Language Code'. The main workspace shows a join operation between 'bib\_record' (from PostgreSQL) and 'Country Code' (from Excel). A 'Join' dialog box is open, showing the 'Left' join type selected. The join clause is 'Country Code = MARC Country Code'. Below the dialog, a table displays the results of the join, sorted by 'Data source order'. The table has columns for Record Id, Language Code, Country Code, and MARC Country Code, with corresponding data for each row.

#	#	Abc	Country Code	Country Code	Country Code
bib_record	bib_record	bib_record	bib_record	Country Code	Country Code
Id	Record Id	Language Code	Country Code	MARC Country Co...	Country
420908113085	420908113085	eng	dcu	dcu	United States
420907821663	420907821663	eng	nyu	nyu	United States
420908113905	420908113905	eng	dcu	dcu	United States
420908113672	420908113672	eng	dcu	dcu	United States
420912413513	420912413513	eng	inu	inu	United States
420908523837	420908523837	n/a	nyu	nyu	United States
420908314149	420908314149	eng	xx	xx	Location Unknown
420909051823	420909051823	eng	dcu	dcu	United States
420911234718	420911234718	eng	nyu	nyu	United States
420908523893	420908523893	n/a	pau	pau	United States
420908523923	420908523923	eng	enk	enk	United Kingdom
420910643386	420910643386	eng	enk	enk	United Kingdom
420909051313	420909051313	eng	mau	mau	United States
420908523746	420908523746	eng	mau	mau	United States
420911067691	420911067691	eng	mau	mau	United States

*Connect Excel documents to Sierra tables*

*Common matching fields are essential to build relationships*

# CONNECT

Tableau - Circulation History

File Data Server Window Help

Connections Add

- sierra-db.case.edu PostgreSQL
- LC Classificati...classifications Microsoft Excel

Database

iii

Table

- \_connector\_...\_connector)
- \_connector\_...ctor\_facet)
- \_connector\_...param\_attr)
- \_facet (articles\_facet)
- \_global\_con...param\_attr)
- \_limit (articles\_limit)
- \_resource (a...s\_resource)
- \_resource\_li...ource\_limit)
- account (articles.account)
- account\_acc...ss\_homelib)
- account\_acc...s\_netlogin)
- account\_acc...cess\_ptype)
- account\_con...\_connector)
- account\_hyp...links\_name)
- accounting\_t...transaction)
- accounting\_t...transaction)
- New Custom SQL
- New Union

item\_circ\_history (sierra\_view.item\_circ\_history)+ (i...

Connection:  Live  Extract | Edit Refresh  
Extract includes all data. 9/6/2019 10:26:41 AM

Filters: 0 | Add

Sort fields: Data source order  Show aliases  Show hidden fields 1,000 rows

#	#	Abc	#	#	#	#	#
bib_record_call_number_prefix Id (Bib Record Call...	bib_record_call_number_prefix Bib Record Id (Bib ...	bib_record_call_number_prefix Call Number Prefix	bib_record_item_record_link Id (Bib Record Ite...	bib_record_item_record... Bib Record Id	bib_record_item_record_i... Item Record Id	bib_record_item_record_link Items Display Order	bib_record_item_record_link Bibs Display Order
660934	420909753825	r	1552734	420909753825	450974852785	0	0
496511	420909197766	m	1108181	420909197766	450974321146	0	0
212753	420908113142	m	378401	420908113142	450973012204	0	0
749048	420910144070	bq	1913213	420910144070	450975245040	1	0
749048	420910144070	bq	1913216	420910144070	450975245046	2	0
45900	420907843625	bx	58571	420907843625	450972633889	0	0
501579	420909208809	qd	1122208	420909208809	450974338880	0	0
728701	420910063496	bx	1767248	420910063496	450975092863	0	0
788760	420910440995	hg	2168538	420910440995	450975559637	0	0
465697	420909043077	qd	1022117	420909043077	450974140663	0	0

Data Source: LC breakdown LC checkouts LC bar graph LC subclass LC subclass bar chart Word Cloud LC Word Cloud

Stephanie Ch...

*Create complex queries with match points between Sierra tables*



# CONNECT

The screenshot displays the CONNECT application interface. On the left, a sidebar lists various tables under the heading "Table". The "New Custom SQL" option at the bottom of this list is circled in red. The main workspace is currently empty, with the text "Drag tables here" displayed in orange. A dialog box titled "Edit Custom SQL" is open in the center, featuring a large text area for entering SQL queries and buttons for "Preview Results...", "Insert Parameter", "OK", and "Cancel". Below the table list, there is a "Sort fields" dropdown menu currently set to "Data source order".

*Create custom SQL queries against the Sierra database*

The background is a vibrant, abstract composition of colors including red, yellow, green, blue, and purple, with a cracked, marbled texture. The word "CREATE" is written in large, bold, white capital letters across the lower center of the image.

**CREATE**

*Data Visualizations*

[https://public.tableau.com/  
profile/stephanie.church](https://public.tableau.com/profile/stephanie.church)

# THANK YOU

Stephanie Church

📞 *(216)368-3514*

✉️ *sap68@case.edu*

🔗 <https://public.tableau.com/profile/stephanie.church>