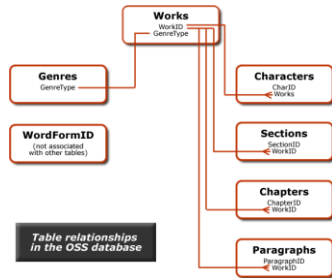# Sierra DNA/SQL

A Crash Course

Brandon Cole, User Services Manager

Sierra DNA?

What Is It?

- Postgres database access

- Database structured tables and views

- All data from Sierra is stored in this structure

What are the benefits?

- Custom queries to meet your individual needs

- Combine data from different views to see more information

- Save your query as text and just paste in whenever you need to run the query again

- Many ways to filter and sort data

- Export in CSV

How can I access it?

- Need to have some understanding of how queries and database are structured

- Need a way to interact with the database (PGAdmin3, ect.)

- Need to get certified by Marmot staff to get access

The Basic Query

Select

    Choose the data columns that you want to pull from the views

From

    The view or views that you are pulling the data columns from

Join

    Connect multiple views together

Where

    How you want to filter the data

Order By

    How you want to sort the data

Limit

    A way to limit the number of results

```sql
SELECT
    brl.location_code,
    brp.best_title
FROM
    sierra_view.bib_record_location as brl
JOIN
    sierra_view.bib_record_property as brp
ON
    brp.bib_record_id = brl.bib_record_id
WHERE
    brl.location_code like 'as%'
AND
    brp.best_title like 'The girl with the%'
```

The Results

location_code	best_title
as	The girl with the dragon tattoo
as	The girl with the dragon tattoo
asdv	The girl with the dragon tattoo [videorecording]

- Results are sent back showing data that fits your **WHERE** and **LIMIT** criteria

- Each line is one row of data

- Each row is the data from one record

- These results can be exported and manipulated in a program like Excel

Lets add a bit more

```sql
SELECT
        brl.location_code,
        brp.best_title,
        ir.item_status_code,
        prf.first_name,
        prf.last_name,
        irp.barcode
FROM
        sierra_view.bib_record_location as brl
JOIN
        sierra_view.bib_record_item_record_lin
k as bril
ON
        bril.bib_record_id = brl.bib_record_id
JOIN
        sierra_view.bib_record_property as brp
ON
        brp.bib_record_id = bril.bib_record_id
JOIN
        sierra_view.item_record as ir
ON
        ir.record_id = bril.item_record_id
JOIN
        sierra_view.hold as h
ON
        h.record_id = ir.record_id
JOIN
        sierra_view.item_record_property as irp
ON
        irp.item_record_id = ir.record_id
JOIN
        sierra_view.patron_record as pr
ON
        pr.record_id = h.patron_record_id
JOIN
        sierra_view.patron_record_fullname as prf
ON
        prf.patron_record_id = pr.record_id

WHERE
        brl.location_code like '9%'
AND
        brp.best_title like '%'
AND
        pr.home_library_code like 'as%'
ORDER BY
        ir.item_status_code
```

The Results

location_code	best_title	item_status_code	first_name	last_name	barcode
9dupp	Addiction and art / edited by Patricia B. Santora, M...	#			U1860196948329dupp
9fcpp	Darkstalker / by Tui T. Sutherland.	#			330520147811759fcpp
9fcpp	I survived the eruption of Mount St. Helens, 1980 /...	#			330520148108759fcpp
9cubp	Dock Ellis in the country of baseball / Donald Hall,...	#			U1830362293499cubp
9doug	Everyday style : key pieces to sew + accessories, s...	#			330250345339099doug
9cubp	Big hair and plastic grass : a funky ride through ba...	#			U1830500563449cubp
9uwyp	Ball Four : the final pitch / by Jim Bouton.	#			U1810202070629uwyp
9fcpp	A year on Ladybug Farm / Donna Ball.	#			330520125162439fcpp

Other options with DNA

- Couple queries with scripts to automate, and have them sent to email as a spreadsheet

- Patrons Opted into Reading history

- Patrons with Hold older than (x) days

- Duplicate patrons (barcode and name based)

- I-type Counts

- Number of holds on a certain material

- INN-Reach checkouts

- Blank field clean up

Questions?