Advanced IQ

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Agenda

- **Review of the ParishSOFT IQ Interface**
  - Column Picker, Results Column, & Query Conditions
  - Using Query Tags
  - Working with Query Results

- **Designing & Troubleshooting Queries**

- **Base Queries**

- **Advanced Concepts Exercises**
  - Aggregate Functions & Grouping Conditions
  - Using the results of a Query in Another Query
  - Sub Queries

- **Demonstration**

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Query Builder

Intelligent Query

The Column Picker is your starting point for designing a query.

+ New Query | 💾 Save... | 💾 Save Query As | 📁 My Queries | 📁 Recent Queries | 🏷 Query Tags | Q View SQL | Q Model Properties

Column Picker

- ▷ ☐ Contributions
- ▷ ☐ Families
- ▷ ☐ Funds
- ▷ ☐ Fund - Organization Summary
- ▷ ☐ Members
- ▷ ☐ Ministry Scheduler
- ▷ ☐ Organization
- ▷ ☐ Pledges
- ▷ ☐ Religious Education
- ▷ ☐ Sacraments
- ▷ ☐ SEP
- ▷ ☐ StatusAnimarum
- ▷ ☐ Subscription Manager
- ▷ ☐ Secure Member Fields

Result Columns

[Add new column]

The Results Columns panel lists all of the columns you select for your query. These are the columns that will appear in your results after you run a query. "What data"

Query Conditions

Select records where **all** of the following apply

[Add new condition]

The Query Conditions panel is where you can limit the results of your query. The results of your query will only include the data that satisfies the conditions you specify. "Which data"

Query Results - 0 | Return All results ▾ | ☐ Unique Records Only | ⚫ Execute Query | 🖥 Query Results ▾ |

Viewing Query **Age/Gender Query**

Q Query Properties

Column Picker

- ▷ ☐ Batches
- ▷ ☐ Contributions
- ▷ ☐ Families
- ▷ ☐ Funds
- ▷ ☐ Fund - Organization Summary
- ◺ ☑ Members
  - ▷ ☐ Contact Info
  - ▷ ☐ Home Organization
  - ▷ ☐ Life Events
  - ▷ ☐ Logs
  - ▷ ☐ Time And Talent
  - ☑ Age
  - ☐ Age (Fractional Years)

Result Columns

Expression	Title
Members Age	Age
Members Gender	Gender
Count of Members Member DUID	Number of Members

[Add new column]

Query Conditions

Keywords = All, Any, None, Not All

Select records where **all** of the following apply

Members Age | is between | 0 and 109

Column Name - Operator - Value

[Add new condition]

Query Results - **232**

Return All results ▾ | ☑ Unique Records Only | ❶ Execute Query | ☰ Query Results ▾

Age	Gender	Number of Members
109	F	1
107	F	2

ParishSOFT IQ User Interface: Query Results

ParishSOFT IQ User Interface: Query Tags

Tags are labels that you define and assign to help you organize your query library.

Designing Your Query: Behind the scenes
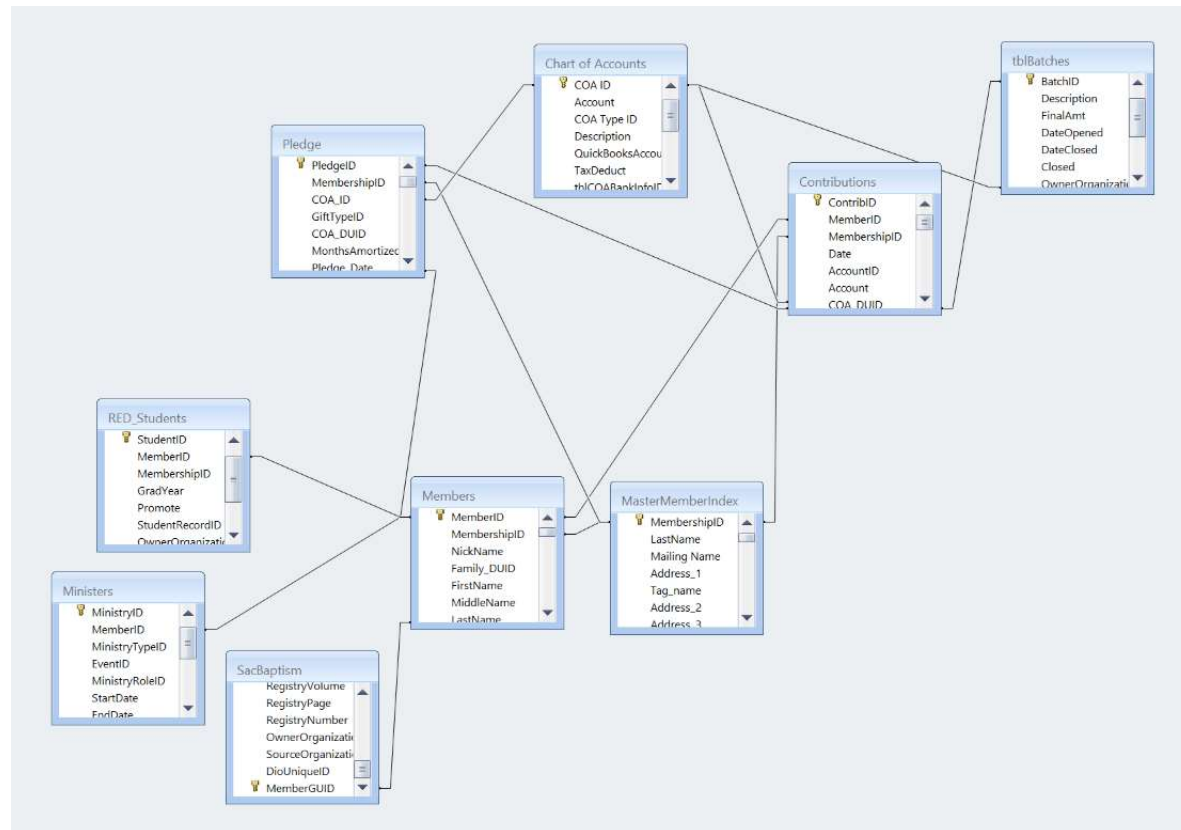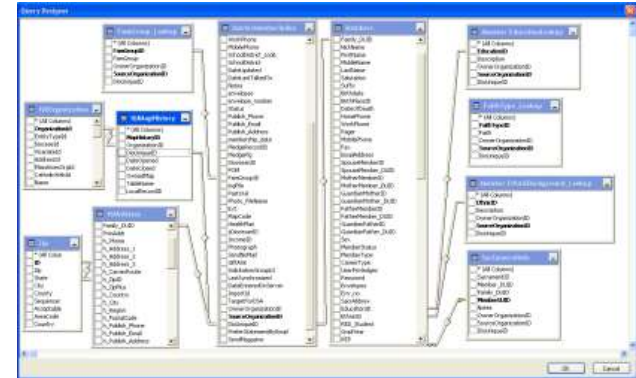
Designing Your Query: DUIDs

- The DUID (Diocesan/Data Unique ID) is your friend.

- Every type of record has a DUID.
  - Family DUID, Member DUID are commonly used.
  - Contribution DUID, Fund DUID, Minister DUID, etc.

- DUID is used to identify records in each table.
  - DUID keeps records unique.
  - DUID is also used to link tables together.

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Designing Your Query

What Are You Looking For?

- People who give (Contributions)
- Students/Teachers (Religious Education)
- Registered Families (Families)
- Baptized People (Sacraments)
- Families with Children (Members)
- People who Serve, or Don't Serve (Ministry Scheduler)

Suggestions for Designing

1. Plan your query

2. Add a column to a Query to find the correct values in a column

3. Add query elements one at a time

4. Check the integrity of the results if the query contains multiple conditions

5. Save Often and ALWAYS

6. Re-Use and Modify

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Trouble Shooting Queries

Not getting the expected results?

1. Did you get the right number records?
2. Are there duplicates in your results?
3. Did you select the right columns?
   - Are you missing columns?
4. Did you select the right keyword?
   - All , Any, None, Not All
5. Did you apply all the desired conditions?
   - Are they specified and spelled correctly?

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Base Queries

- Contain most frequently used fields
- Family Base Query
- Member Base Query
- Rename & Reuse

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Aggregate Functions

Sum – Adds all of the values in a column and returns the sum of the numeric values

Count – Computes the number of values in a column that meet specified conditions and then returns a single integer value that represents the total number counted

Aggregate Functions

Average – Tracks the values in a column and returns the average value

Minimum – Finds the lowest (smallest) value in a column

Maximum – Returns the highest value in a column

Grouping Conditions

The **And** Operator

The **Or** Operator

Using **And** and **Or**

    Setting up grouped conditions

Query Conditions

Select records where **all** of the following apply

and Funds Fund Name starts with [enter value]

and any of the following apply

Contributions Payment Date is between 00:00 and 00:00

or Contributions Payment Type starts with [enter value]

[Add new condition]

Conditions - Keywords

All

- Results meet ALL conditions
- Think "AND" between conditions

Any

- Results meet ANY condition
- Think "OR" between conditions

Query Conditions

Select records where **all** of the following apply

[Add new condition

all
any
none
not all
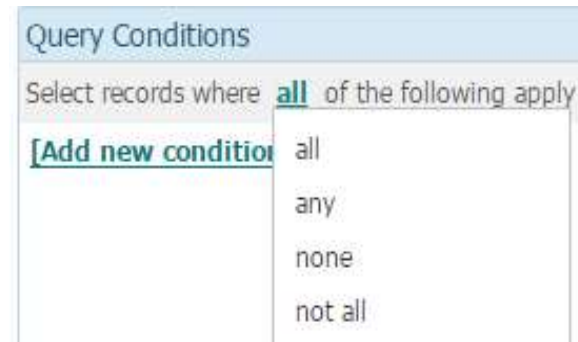
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Conditions - Keywords

Not All
- One of more conditions are not met

None
- Results meet NONE of the conditions

Query Conditions

Select records where **all** of the following apply

[Add new conditior

- all
- any
- none
- not all

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Condition Options

Query Conditions

Select records where **any** of the following apply

all of the following apply

Families is Registered is equal to Yes

and Families Family Group Name starts with Active

or Families Family Group Name starts with School Only
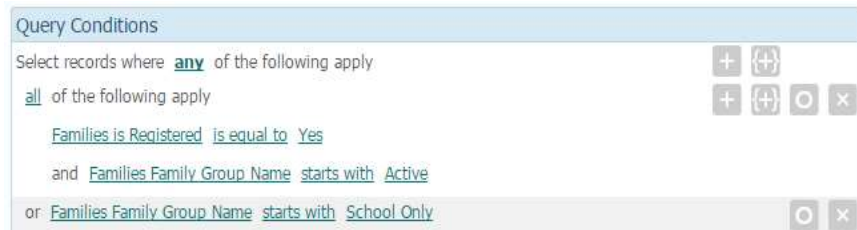
- Use the + to add a single condition or simply add another condition

- {+} to add and group multiple conditions

  - *Use this to relate two conditions*

- The O to toggle between enabling and disabling the condition

- The X to delete the row

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Using the Results of a Query in a Second Query

- Query 1 returns a value that you can use in the design of a 2nd query

- Query 2 uses the results from the 1st query

By combining the information from both queries, often the desired results can be achieved

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Sub Queries

- What are they?
- How IQ Processes Sub Queries
- When to use
  - To know whether certain records exist
  - Not enough information
  - To exclude a set of records
- Constructing a Sub Query
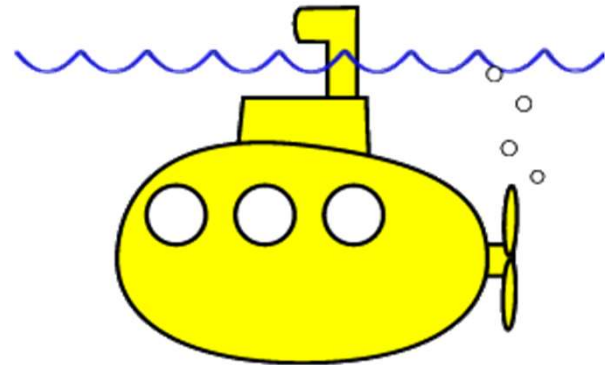
Demonstration
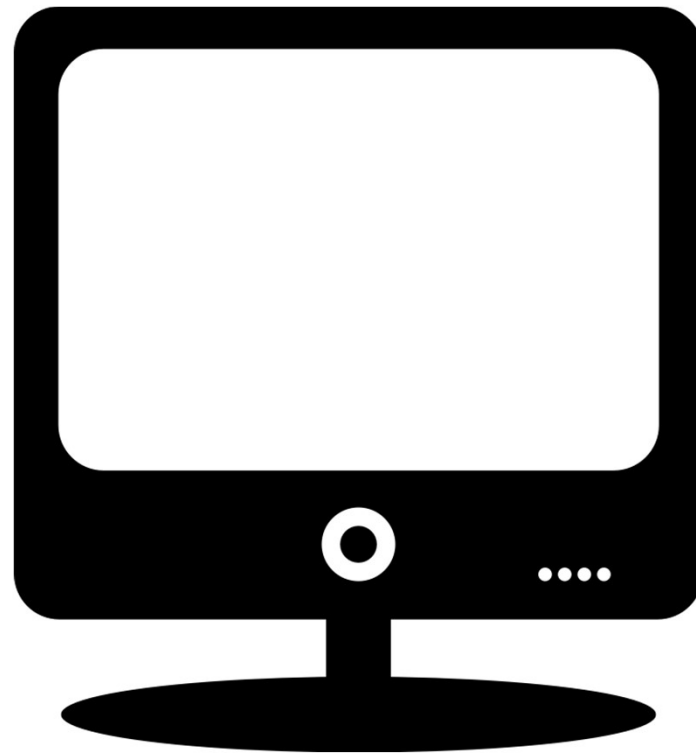
QUESTIONS?

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Thank you!

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