Searches/Custom Listings

At its core, CDM+ is a database, storing and organizing your organization's critical information. Learning how to query that database and report your findings will unlock the true power of CDM+.

CDM+ Desktop offers a powerful and consistent set of features to do just that—Advanced Finds and Custom Listings. Once you learn how to use these tools in one area of CDM+, you can easily apply those skills through the CDM+ suite.

Where to Begin

When you want to find or report on information in CDM+, the first question to ask is "what is the base record I want to find/report?" An example of a record is an Individual, Contribution, Vendor, etc. Generally, any window ending in "Record" means that type is a record you can report on.

Base record specifies which record shows up on each line of your report or window. Say you have a giving unit with 5 contributions. Do you want one row per contribution or one per giving unit? This distinction is **critical** to knowing which custom listing or window to use to build your report.

Example Scenario

Consider this request from a board member:

"Can you give me a report of people under 45 who gave to the outreach fund last year?"

This request could refer to several different record types in CDM+:

- "People under 45" could mean Individuals
- "People who gave" could mean Giving Units
- "Giving" could mean Contributions
- "Outreach fund" could mean Giving Fund

Which of the following would you use?

1. Individual Custom Listing and Export
2. Giving Unit Custom Listing and Export
3. Contributions Custom Listing and Export

Ultimately, it depends on that the board member wants. Does "people" mean individuals, or giving units? If you use individuals, joint givers will appear twice on the report. If you use giving units, you may have results for a couple where one person is under 45 and the other is over 45. If you use contributions, you will see a list of gifts, and the givers will be repeated, once for each of their gifts.

There isn't a right or wrong answer—what matters is that you clarify the reporting request so that you provide accurate and expected results. This example shows how important a subtle difference in language can be when translating requests like this to the CDM+ database.

Searching Related Data

You may want to search for information that isn't on your base record type. For example, you may want to report on individuals by searching the city from their address record. The Advanced Find tool allows you to easily search across related tables, even across CDM+ programs. You can also search for the absence of records, such as vendors without invoices.

Reporting Related Data

If you want to report on data from a related table, ensure that is it a **parent** of your base record. A parent means the base record links to one, and only one, parent record. If you want a list of individuals that includes the city from their address record, that's no problem since each individual has one address record.

However, if you want to report giving units and their detail contributions, you can't include the detail contribution data on a giving unit since each giver could have multiple contributions. This is a **child** relationship, where one giving unit has multiple contributions. You would need the base record to be the contribution, so use Contribution Custom Listing and Export to run your report instead of Giving Unit Custom Listing and Export.

NOTE: There are some fields that will aggregate child data on the parent, generally labelled as "Total". Other fields are function driven and provide a customized set of data on a record, which could include child data. Examples are provided in class. Contact CDM+ support if you need additional assistance using aggregate or function fields.

CDM+ Database Layout

The more familiar you are with the CDM+ Database layout the better you can find exactly the information you need. See the CDM+ Database Layout appendix for textual and visual representations of the most common CDM+ records.

The visual diagrams express parent and child relationships using connecting lines with arrows. The arrow points to a parent, and different line styles indicate if the relationship is optional, alternative, or required. See the legend on the diagram for details.

You can use the following technique with the layout diagrams to build your report:

- Identify the base record type
  Find that record type on the CDM+ Database Layout diagram
- Identify the record type(s) for the data you want to search
  Follow the connections to ensure those record types are connected to your base record
- Identify the record type(s) for the data you want on your report
  Follow the connections to ensure they are a parent of the base record type
  If not, you may need to choose a different base record type (unless you can use an aggregate)

Explore Freely

Using Advanced Finds and Custom Listings in CDM+ will not affect your data in any way—you are simply viewing information. Use these tools to explore your database and learn how to best find the information you need. If you ever get stuck, the CDM+ support team is ready to help!

Advanced Finds and Searches

Advanced Finds allows you to identify a specific group of records (people, ledger entries, contributions, attendance, etc.) to be displayed in a window or printed on a report. Specifically, you can:

- Find information by searching multiple fields at once
- Combine finds from multiple programs
- Easily save and reuse advanced finds throughout CDM+
- Build quick listing reports of information
- Enhance your ministry

NOTE: The terms "Advanced Find" and "Advanced Search" will often refer to the same interface in CDM+. However, "Advanced Search" tends to refer to the full find (primary find plus any related finds), and it also is used on reports to complement "Standard Search".

There are several components to the Advanced Find. This course will begin with a brief overview of the fundamentals of finding data in CDM+, and then build on those fundamentals to introduce the ideas of Boolean searching, sub-grouping, and expanding your finds across related records. Don't worry if these terms seem overly technical; they are all easy-to-understand concepts and this course will bring you up to speed on them all. Specifically, you will learn:

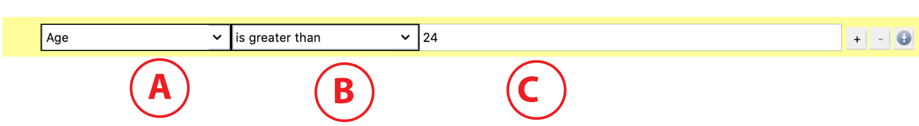
- How to construct basic advanced finds
- How to mix comparisons (and/or) within a single advanced find
- How to pull together finds from multiple programs into a single find
- How to use saved searches
- How to master the advanced find window

By the end of the session, you will be able to quickly and easily target specific sets of information in CDM+, allowing you to put your database to work for you!

Simple Finds

Simple finds are found at the top of many windows in CDM+. At its most basic level**, an Advanced Find is a collection of simple finds**. So, Simple Finds are:

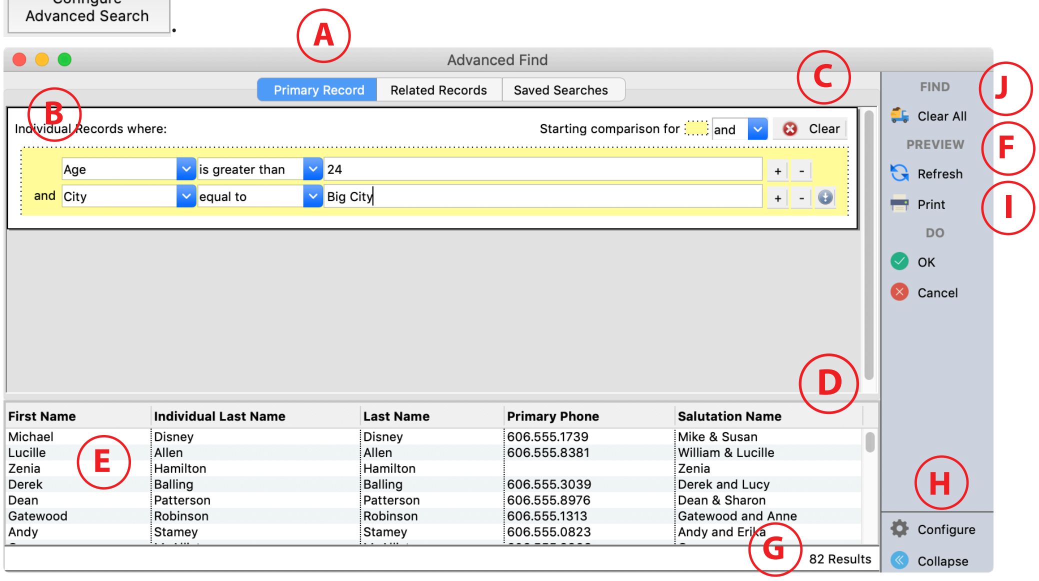
- Made of three parts:
    - o Find Field
    - o Modifier
    - o Criterion
- Used to construct advanced finds, making them:
- Key to understanding advanced finds



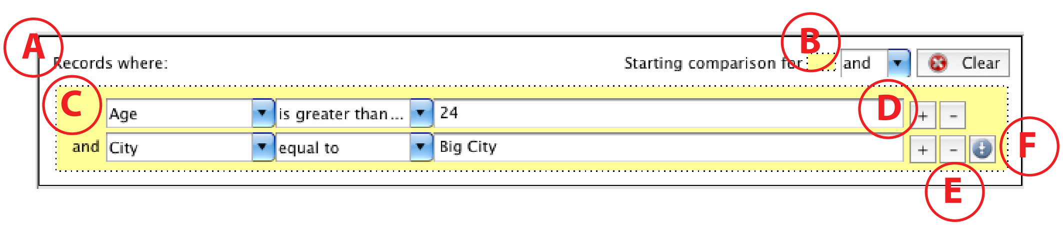
A – **Find Field** - dependent on the type of record you're finding
B – **Modifier** - dependent on the find field's type
C – **Criterion** - which is driven by your data and highly dependent on what you want to find

Advanced Find Window

To access the Advanced Find on many windows, click the Advanced Find button Advanced Search. For reports, choose the Advanced Search tab Advanced Search, then click Configure Advanced Search Configure Advanced Search.



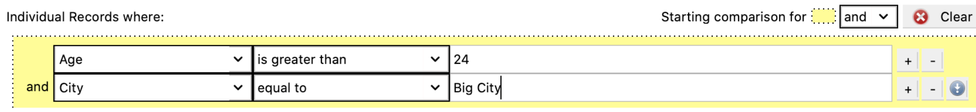
A – Primary Record, Related Records, and Saved Searches Tabs
B – Primary Find
C – Clear Primary Find
D – Resizable divider between tabs and preview
E – Preview of find results
F – Refresh preview results
G – Number of results in preview
H – Window Options for preview
I – Print preview results
J – Clear Primary Find and Related Record Finds



A – Primary Record Type description
B – Starting Comparison for master group (C)
C – Master Group (yellow box)
D – Add Search Line
E – Remove Search Line
F – Add Sub-Group

Building a Simple Advanced Find

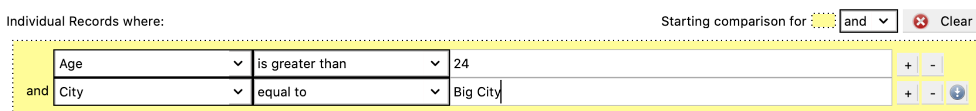
- Create a series of simple searches (field + modifier + criterion)
- Link them using *and* or *or*



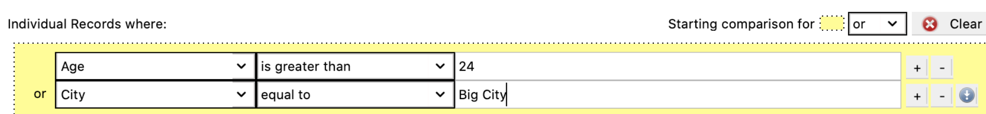
Choosing AND vs. OR

- AND means that results match every simple search
- OR means that results match at least one simple search
- OR generally gives you more results
- AND generally gives you more specific results

Example 1: 24 years old AND living in Big City



Example 2: 24 years old OR living in Big City



Using Sub-Groups: Mixing ANDs and ORs

- Sub-Groups allow you to mix ANDs and ORs
- Sub-Groups are like parentheses in algebra
- Sub-Groups can be understood using the concept of "substitution"
- You only need a Sub-Group when you want to change from AND to OR or vice-versa

Let's say we want people who match both these traits:

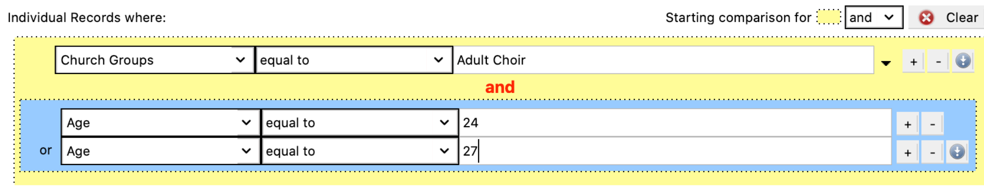
- *Sing in the choir*
- *24 or 27 years old*

In CDM+ this would be:

Current Church Groups equal to Adult Choir and ?

PROBLEM! There is no single simple search for "age is 24 or age is 27".

Solution: Use a Sub-Group!



The sub-group allows us to create an entity that is treated like a single search line and can be compared with other search lines. CDM+ will use the results of the sub-group to compare with the other search lines to get the find results list. There are a couple ways to think of sub-groups: parentheses and using substitution.

Sub-Groups as Parentheses

The above search could be written using parentheses, as one does in algebra:

Current Church Groups equal to Adult Choir and (Age equal to 24 or Age equal to 27)

The "order of operations" means that you evaluate the contents of the parentheses first. So, you evaluate the sub-group (blue box) first, and then use its results with the single search line.

Consider this – everything on an advanced find is in a yellow box. So, you can think of boxes equalling parentheses. The example above then becomes:

(Current Church Groups equal to Adult Choir and (Age equal to 24 or Age equal to 27)

Advanced Finds, therefore, are one big sub-group. They are a sub-group of your entire database. See, you've been using them all along!

Sub-Groups as Substitution

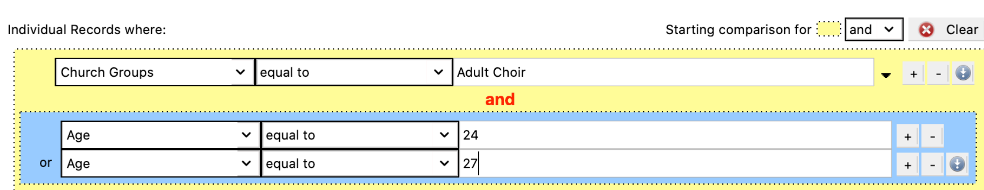
Another way to think of sub-groups is using substitution. Begin by writing out the advanced find in terms of the colored boxes:

1. = Current Church Groups equal to Adult Choir and
2. = Age equal to 24 or Age equal to 27

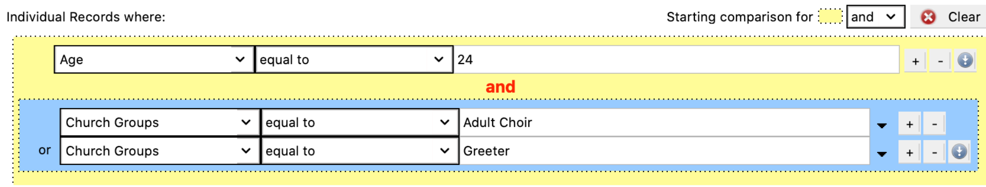
To execute the find, get the results of the blue box in line 2, and substitute the blue box in line 1 with those results.

Sub Group Examples

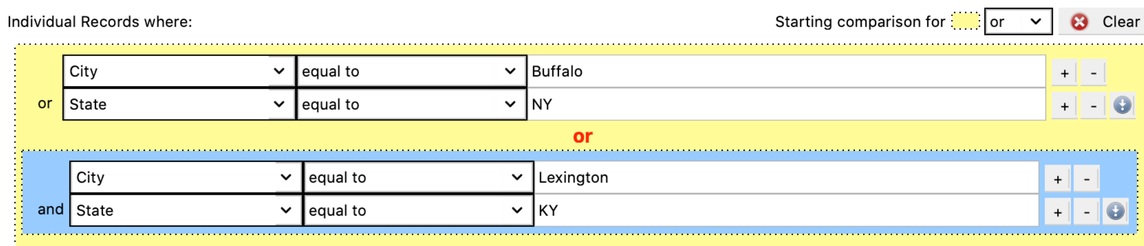
Example 1: In the Choir and 24 or 27 years old



Example 2: 24 years old or is in the choir and is a greeter



This and This or That and That



- Begin by adding two Sub-Groups
- Remove the initial search line
- Change the starting comparison
- Enter your search

Related Records

A related record is something that links to your primary record. Some example primary/related record combinations include:

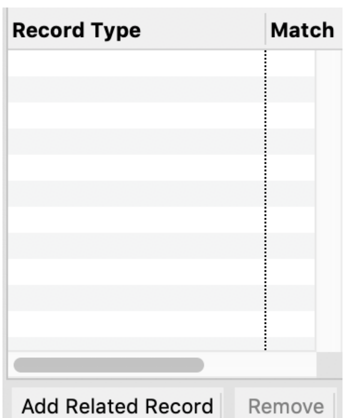
Primary	**Related**
Individuals	Attendance Other Phones Other Individuals in that household
Giving Unit	Contributions Pledges Attendance
Ledger Entries	Bank Reconciliations Payroll Vendors

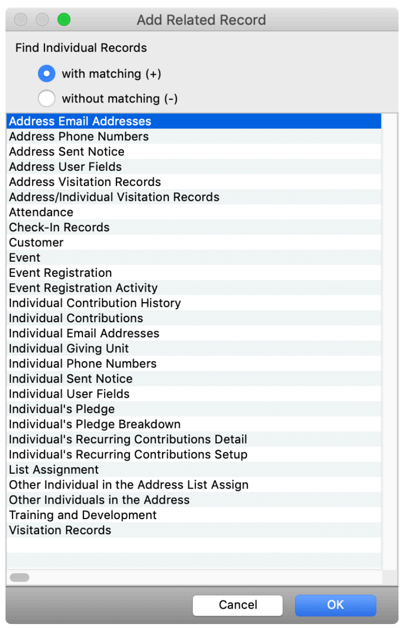
There are two ways to add a related record find to your overall advanced find. These are the **matching options**, and are:

- "With matching" means you find results that match the related record find.
    - o *Example: Individuals with Attendance for last Sunday*
- "Without matching" means you find results that don't match the related record find.
    - o *Example: Capital Campaign Pledges without Giving to the Capital Campaign*

Adding a Related Record Find

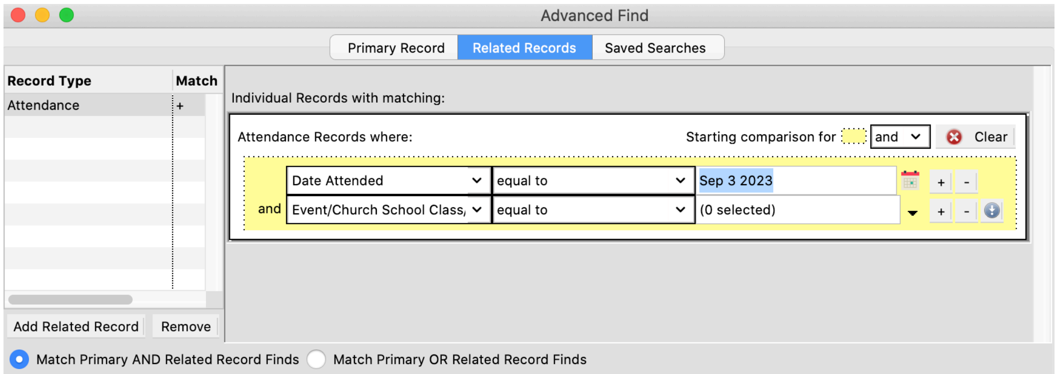
- Switch to the Related Records tab
- Click Add Related Record
- Choose your matching option, the related record, and click OK
- Repeat as needed
- You can add a related record twice; once with each matching option
- All related record finds on the search are used, not just the selected one

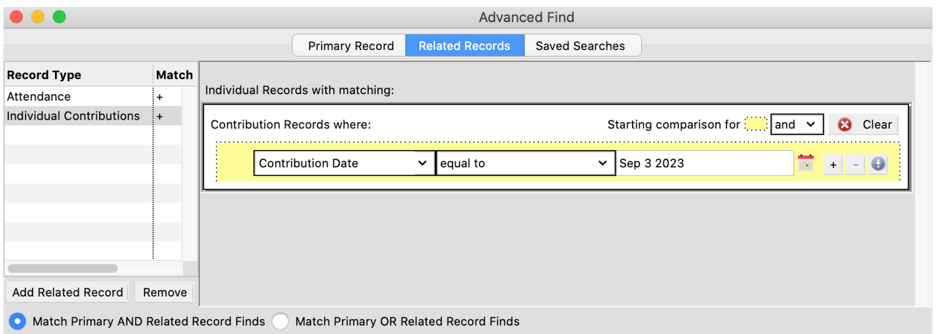




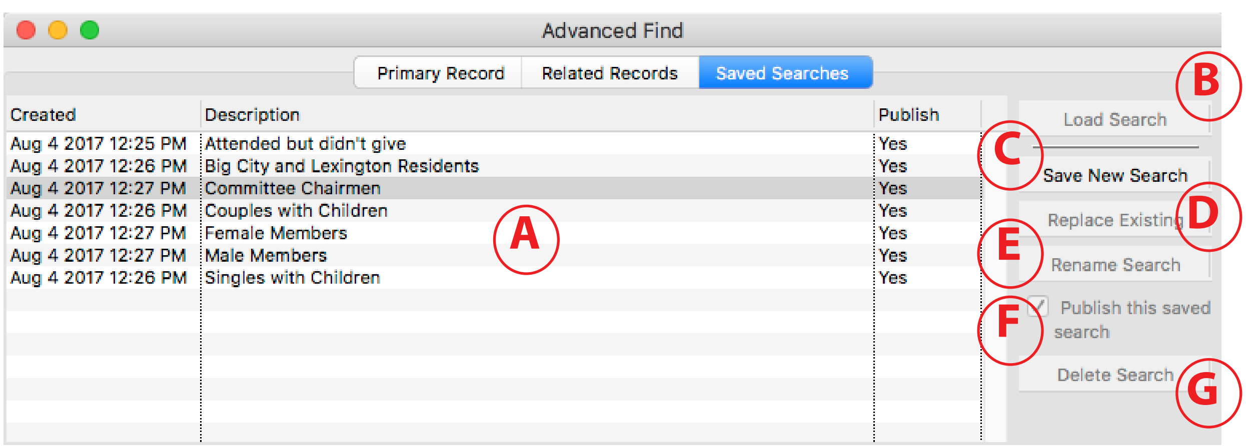
Examples

This advanced find will find individuals who attended last Sunday, but did not give anything. You could further customize this using the primary find to limit it to people that are members of the church, or are in a certain age group.





Double click the + or – under the Match column to change its value.



Saved Searches

A – List of saved searches
B – Load the selected search
C – Saves the search on the Primary and Related Record tabs as a new search
D – Replaces the selected search with the current search
E – Renames the selected search
F – Publishes the search so other CDM+ users can access it
G – Deletes the selected search

Publishing and Sharing

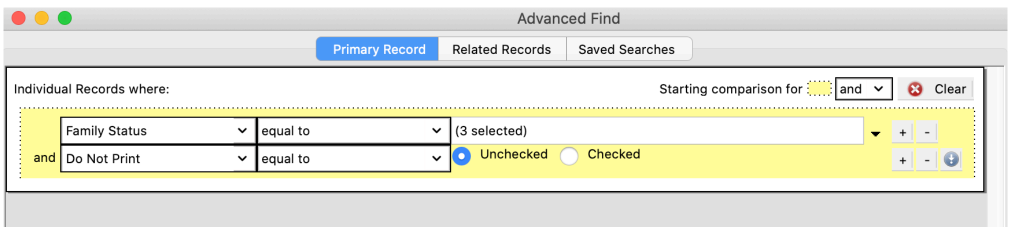
- By default, new searches are published.
- All users can access a published search.
- An unpublished search can only be accessed by the person that creates it.
- Regardless of publish status, only the person that creates a saved search can change it.
- However, you can load someone else's published search, tweak it, and save it as a new one.
- Saved Searches are common across reports and windows; save a search on Individual Records and it will be available on Individual-based reports.

Examples of Advanced Finds

Following are examples of useful Advanced Finds in different CDM+ programs:

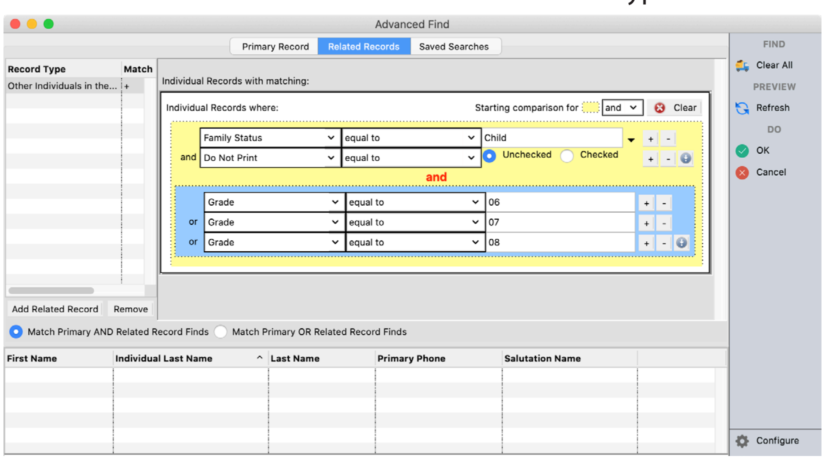
Membership – Parents of Middle Schoolers

▶Program ▶Membership ▶Individual Records ▶Advanced Find button



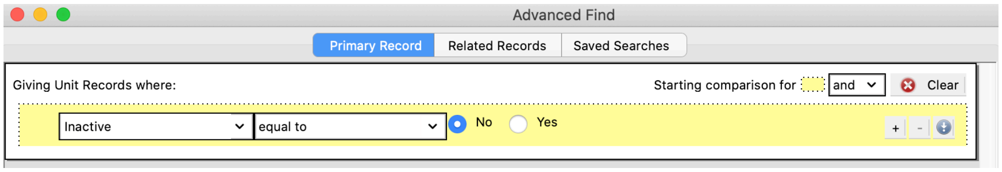
Click on Related Records tab.

Click on Add Related Record button under Record Type and select Other Individuals in the Household.



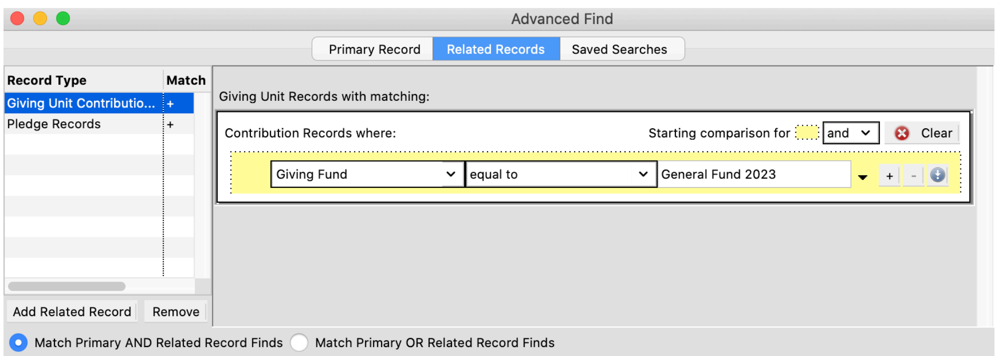
Contributions – Non-pledging Givers

▶Program ▶Contributions ▶Giving Unit Records ▶Advanced Find button

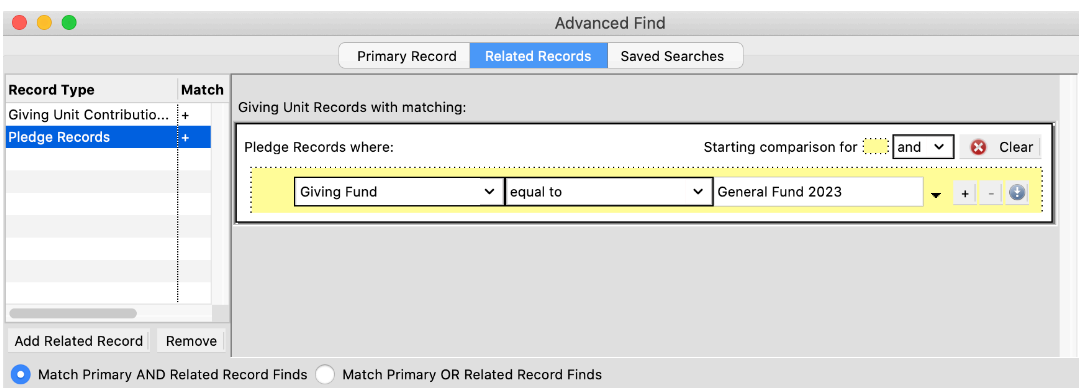


Click on Related Records tab.

Click on Add Related Record button under Record Type and select Giving Unit Contribution Records.

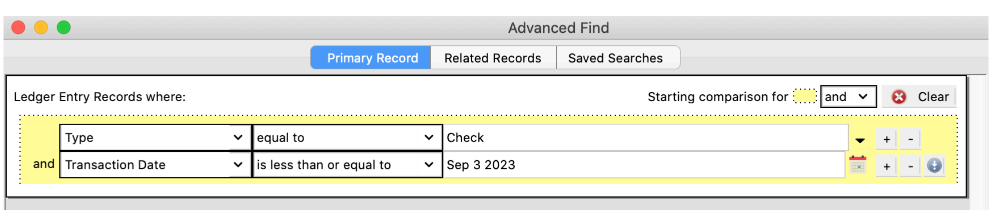


Click on Add Related Record button again and select Pledge Records from Record Type.



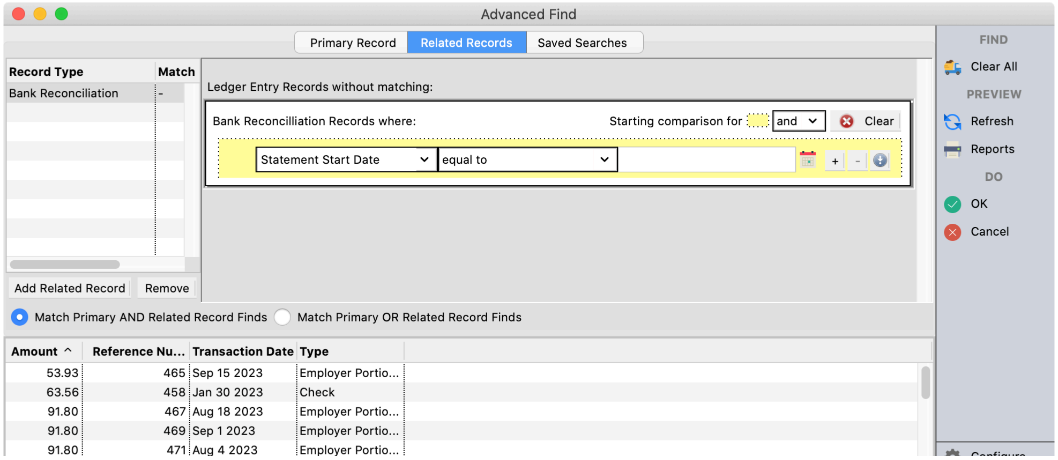
Accounting – Outstanding Checks

▶Program ▶Ledger ▶Ledger Entry Records ▶Advanced Find button



Click on Related Records tab.

Click on Add Related Record button under Record Type and select Bank Reconciliation.



Custom Listings and Exports

Custom listings build reports to be printed to exported from CDM+. You control:

- Which records appear
- The columns that appear
- Formatting (spacing, fonts, etc.)
- Sorting, subtotaling, and paging
- Detail/Composite views
- And more…

Many of the built-in "canned" CDM+ reports can be produced using a Custom Listing, then further customized to meet your needs. Custom Listings are the ultimate choice in flexibility when reporting from CDM+.

Creating a Custom Listing

Using the Custom Listing report involves 5 steps:

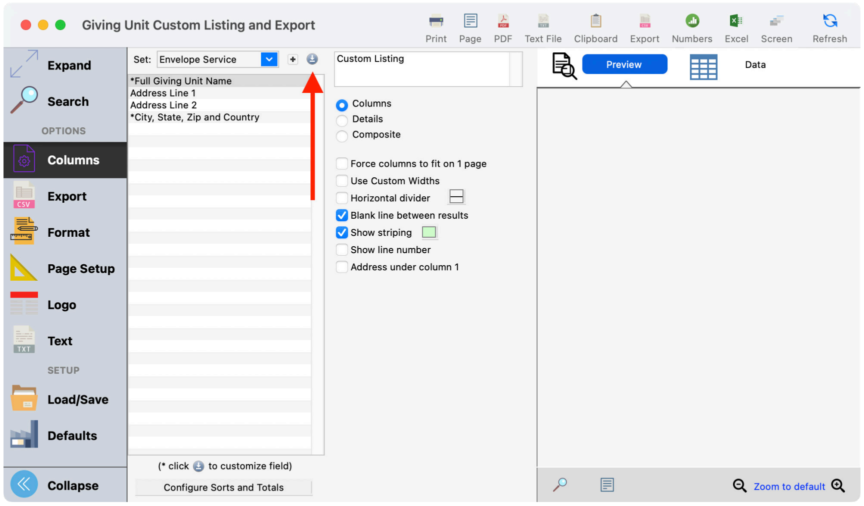
1. Locate the custom listing report for your base record type
2. Configure the search (standard and/or advanced)
3. Choose the columns (called a set)
4. Set the sort and subtotals
5. Format the report to your liking

Use the information in this manual to accomplish the first two steps. **NOTE:** You do not have to use an advanced find if the standard search will suffice.

Custom Listing Sets

A set controls which fields (columns) appear on your custom listing. You can choose an existing set or add a new one. Some sets may be published by other users for you to use (but not change). Sets are configured by clicking the button next to the set list.

Tip: Use the Administration window to re-assign ownership of sets or delete unused sets in bulk.

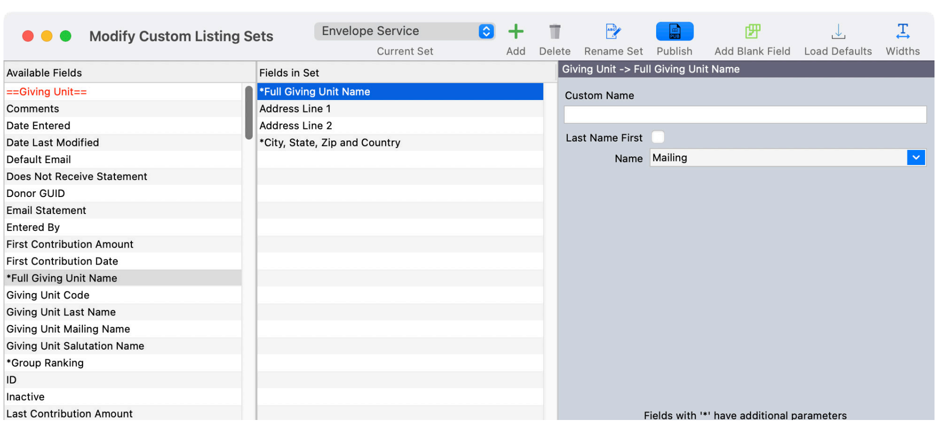


A list of available fields from one or more record types will appear on the left. Record types will include:

- The base record type
- Parent records
- Ancillary records like groups or phones

Drag or double-click a field to add it to the set. Double-click, drag, or select and press the delete key to remove a field from the set. You can drag fields up and down to reorder them.

Select a field in the middle column to customize it. You can rename all fields. If the field is function-based and has additional parameters, the field name will have an asterisk (*).

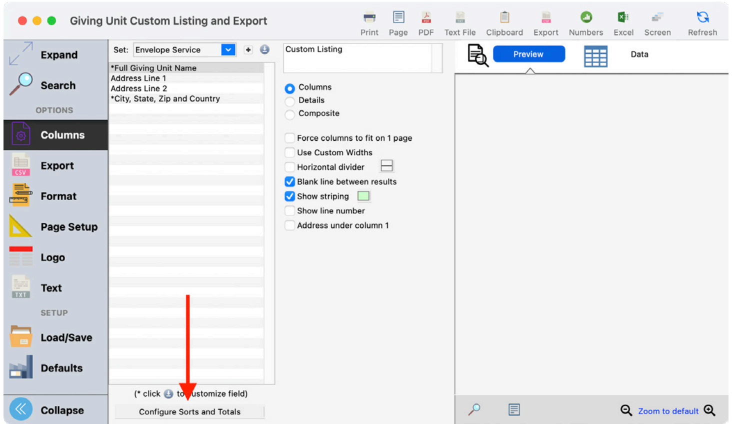


The window toolbar allows you to:

- Add/Delete/Rename sets
- Publish a set so other CDM+ users can use it
- Add blank fields
- Adjust the width when printing
- Load defaults for that record type

Sorting and Subtotalling

Click **Configure Sorts and Totals** on the Custom Listing and Export window to adjust these settings.



Custom listings let you sort by up to 9 fields in ascending or descending order. Available sort fields are generally the same as fields available on the set.

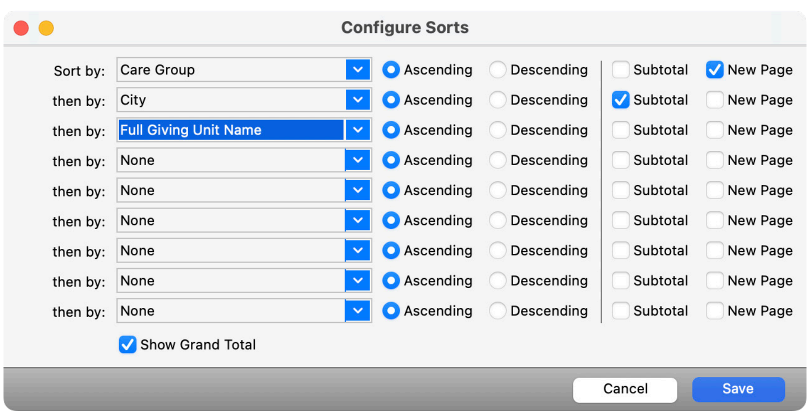
Choose **Subtotal** to group results by that field. Numeric fields will be subtotaled by group and a count for that group will be printed. When using the Composite format, only subtotaled fields will be printed.

Choose **New Page** to start a new page when that field changes.

Choose **Show Grand Total** to total all numeric fields and include a count across all records.

The example in this screenshot will:

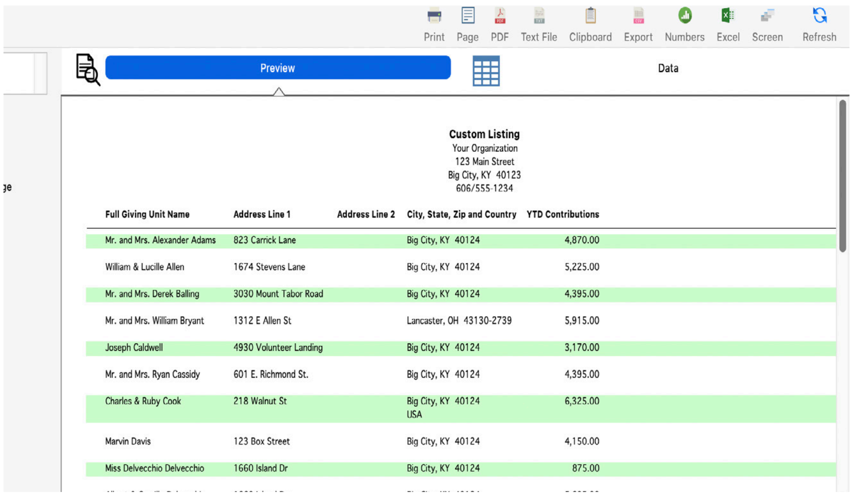
- Product a new page for each care group
- Group givers by their city
- Sort givers by their full name

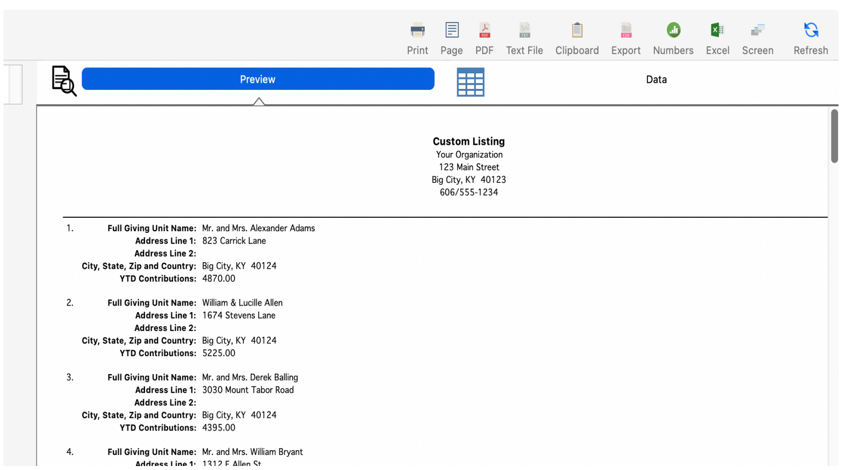


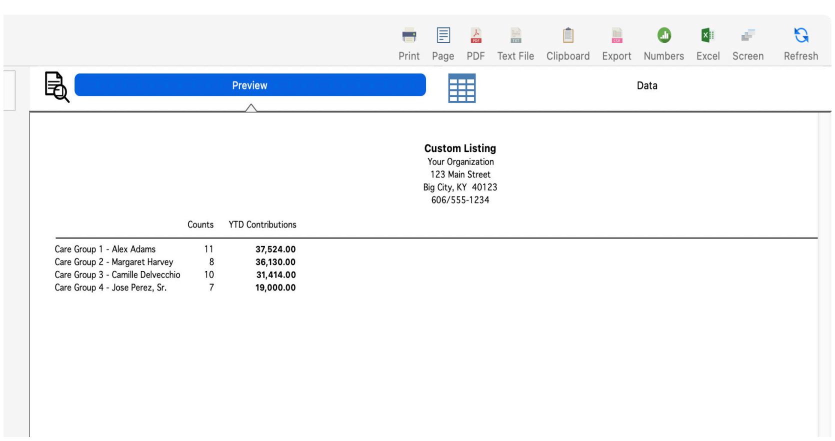
Formatting the Custom Listing

When printed or copied to the clipboard, Custom Listing reports can use one of three formats:

- Columns displays each record in a row with fields in the set as columns (akin to a spreadsheet or window results in CDM+)
- Details displays one record at a time with one field per line
- Composite displays subtotal and total values only







Additional options control printed output, such as striping, spacing, and fitting data on the page.

NOTE: If printing the report or copying to the clipboard and there isn't enough space to display all the data, consider using a smaller font, larger paper, or including fewer columns.

Printing vs. Exporting

All Custom Listing reports provide an Export option. Exporting saves the data in a standard CSV (comma separated value) format which ideal for loading into spreadsheets and other programs.

For cleaner data, consider using an export to send data to Excel or Numbers instead of the standard Excel or Numbers features, which reproduce the printed format of the report and format data to fit paper.