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NetSuite Advanced Saved Searches

For the Rocky Mountain NetSuite User Group

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- I started at NetSuite in 2012
- I work on scripts and integrations
  and many other consulting and customization tasks
- I also wrote a book for NetSuite Consultants with Packt Publishing

Agenda

- How Saved Searches Are Used
- The Elements of a Saved Search
- Selecting Record Type(s)
- Criteria
- Use summary data in the criteria
  - DEMO
- Results
- Formulas
- Summarizing results
- HTML Formatting Results
  - DEMO
- Highlighting and Available Filters
- Scheduling and emailing searches
- Controlling access to searches
  - DEMO
- Best Practices
- Q & A

Learning Objectives

By the end of this course, participants will be able to:

- Create saved searches and tweak them to a particular need
- Create formulas in saved searches
- Use SQL functions in saved searches
- Create summarized saved searches
- Use highlighting and dynamic filtering in saved searches

Question #1

A NetSuite Saved Search can provide which of the following information?
(select one answer):

a. A fully defined Income statement
b. A list of transactions in a specific date range
c. Customer data which comes from your external CRM application
d. A prediction of who will win the Super Bowl

How Saved Searches Are Used

And why

We use Saved Searches to

Find a set of data right now

- Throw a search together quickly and use it just once to get the answers you need right now.
- Quickly set the criteria and choose which fields we want to see in the results.
- Run the search
- Export the results, or use them some other way

Create a report we will use over and over

- Take more time, review every setting in the search.
- Give the search a clear, easily recognized name.
- Carefully choose the criteria and the result fields.
- Vet the results we get carefully and fine tune the criteria to make sure we're getting exactly what we need.
- Control the search's permissions and audience.
- (optional) Set as a default for various lists and views.
- (optional) Add the search to the Reports menu.

Advanced Saved Searches

Going beyond the basics

We can use Expressions to make complex sets of criteria.

We can use formulas and SQL functions to control your searches like a magician!

Summarizing results into groups that communicate to your audience.

Making searches interactive so the end user can control the data shown, without changing the search.

And more!

Be patient, Be persistent

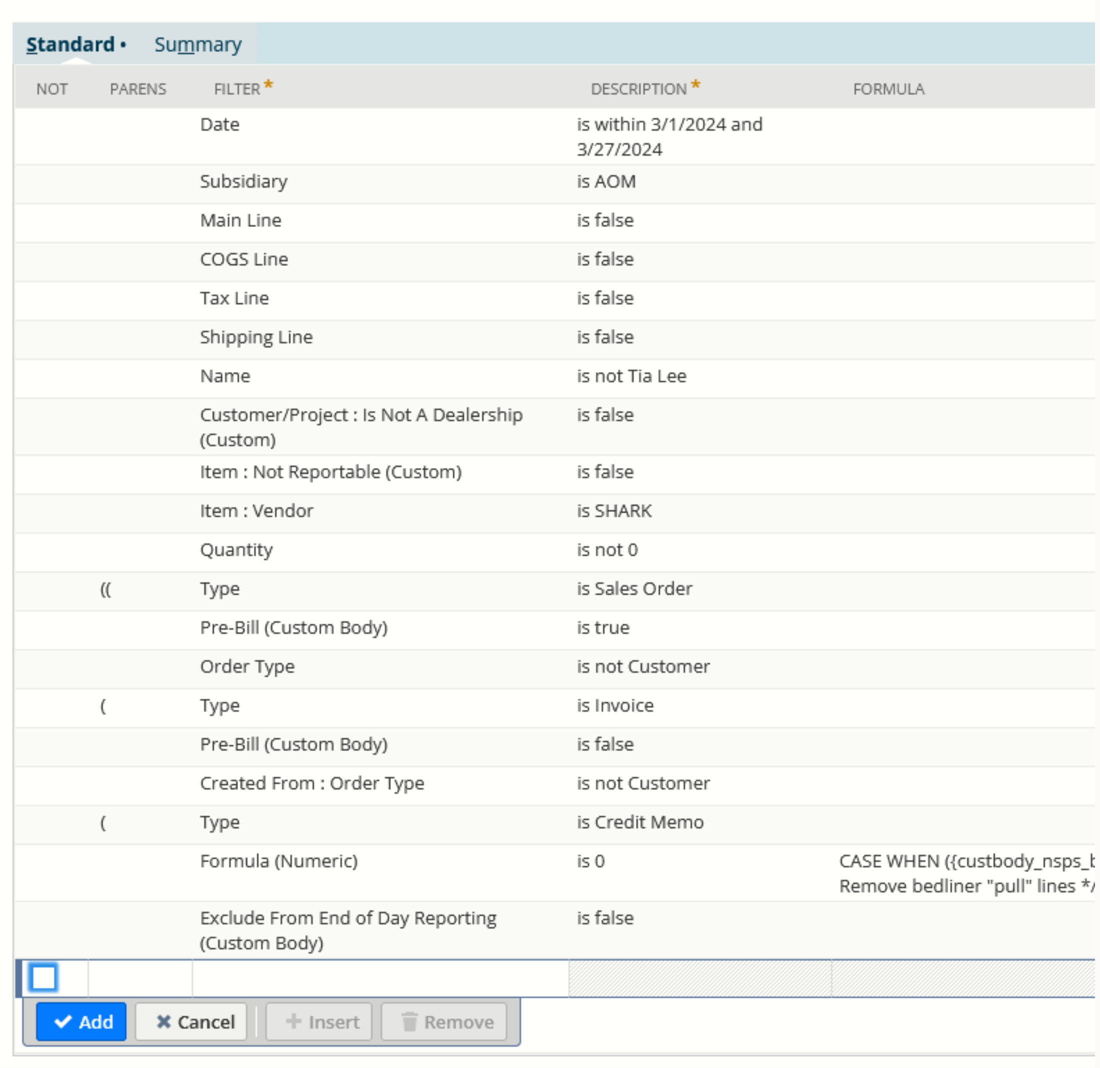
Crafting the perfect Saved Search can take time

Complex sets of criteria (like this example) take time to perfect, with some trial & error included in the process every time.

Getting the criteria, and the grouping of the records and defining formulas for fields takes practice and a lot of interactive review.

The basic process is:

- Edit the search
- Add something new
- Save & Run it
- Edit it again
- Repeat until you’re happy



Important Reminders for Saved Searches

Roles and permissions apply!

Don’t forget that your audience must have permission to access the data included in your search, or they will see an error when they view it.

Keep it as simple as you can!

This helps users understand the data you’re presenting, and makes the search run as fast as possible.

Only include the criteria & fields you need!

Remove any unnecessary data as you develop the search to fine tune its presentation.

Question #2

Is it true that only NetSuite Administrators should ever create Saved Searches?
(select one answer):

a. Yes, Searches are far too technical for the average NetSuite user to create themself.
b. Yes, Searches won't be useful to most NetSuite users.
c. No, many users might benefit from creating Searches to assist them in their daily NetSuite activities.
d. No, but creating too many Searches can break a NetSuite account.

Example: We run a retail furniture business.

We need to get a list of Orders which include items which are now discontinued and which were either for certain locations or a single department.

We need to know who the customer on those orders was, who placed the orders, the order’s total and other details.

The Elements of a Saved Search

Every Saved Search has these elements

Record(s) it applies to

- Can be “transactions” or any other record.
- Can be a custom record type or a native record (“Customer”)
- Cannot use two unconnected records

Criteria

- Tells NetSuite which records to include in the results.
- Can be based on field values or formulas.
- Can use expressions for complex sets of criteria and can include summarized criteria too.

Results

- Tells NetSuite which fields to include for each selected result.
- Can pull field values or formulas.
- Can be plain text or formatted HTML (colors, fonts, etc…)

Other settings

- Allows us to control highlighting, dynamic filters added to the search results UI, scheduling, email generation and more.

Question #3

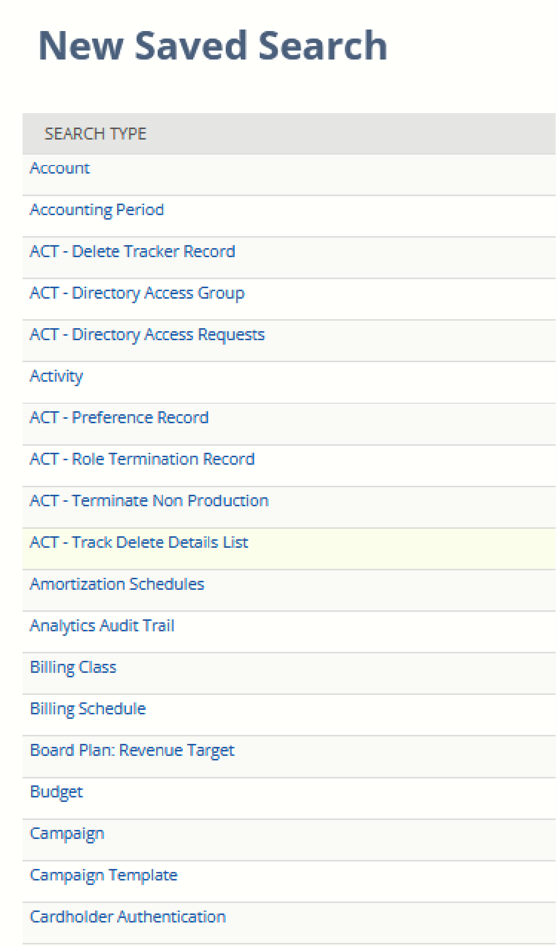
What’s the best way for an average NetSuite user to learn about Saved Searches?
(select two answers):

a. Take a week-long class and pass the NetSuite Analytics certification.
b. Create searches in your Account, preview the results, save them only if want to.
c. Hire a consultant to create the searches you need and then review how they did that.
d. Read the NetSuite Help on Searches and try out anything new you read about.

Selecting Record Type(s)

What type of data am I searching for?

Every Saved Search focuses on one type of record



That can be a single record, like “Employee” or a set of records, like “Transaction”.

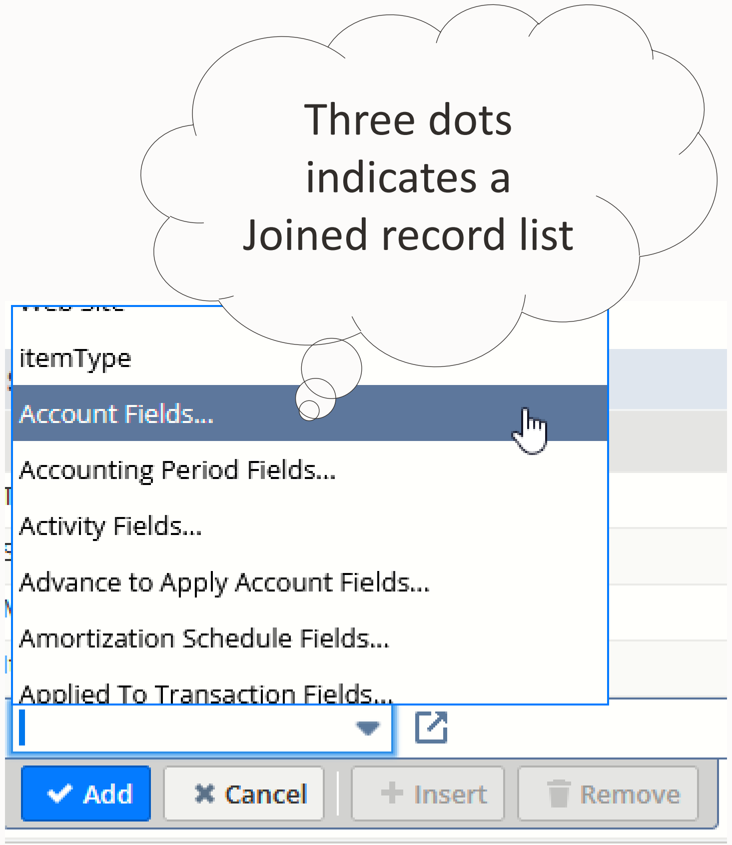
- Transaction searches are the most common type we work with.

NetSuite allows us to get all the data we need from that record, and from any other records which are joined to it.

- For instance, Customers and Transactions are joined records, so we can include details from Customers in a Transaction search.

If you need to get data from multiple unconnected records, such as from Transactions, Customers and Inventory Configuration Location details in single report, you might need to use Analytics (Datasets & Workbooks) instead.

Record Joins



A Transaction record (such as Sales Order) is natively joined to other lists of records in NetSuite, including Accounts, Activities, Customers, Items and many other lists.

That means that you can pull details into your Transaction search which are pulled from Customers or Items.

If you have a custom field on Customers called "Preferred Shipping Location", that field's value can be included in your Sales Order search.

Likewise, custom records can be related to fields on items, transactions, and other records as well.

What if you can create the Search two different ways?

New Saved Search

SEARCH TYPE
Account
Accounting Period
ACT - Delete Tracker Record
ACT - Directory Access Group
ACT - Directory Access Requests
Activity
ACT - Preference Record
ACT - Role Termination Record
ACT - Terminate Non Production
ACT - Track Delete Details List
Amortization Schedules
Analytics Audit Trail
Billing Class
Billing Schedule
Board Plan: Revenue Target
Budget
Campaign
Campaign Template
Cardholder Authentication

For instance, you need a search to get details from both Items and Transactions which have used them.

You could either create an Item search, and add in the details from related Transactions, or you could create a Transactions search, and pull in details from the Item on each line.

Generally, either approach should work. Choose the one that makes the Search as simple as possible to understand (for anyone else who might need to edit it) and to maintain over time.

Question #4

You need to get a set of search results from your Leads, Prospects and Customers.
How many Saved Searches do you need to create?
(select one answer):

a. N/A – those records cannot be included in a Search.
b. 1 – Those are all Entities, and you can create a single Search to list results of all three types.
c. 3 – You will need 1 search for each type of Entity.
d. 6 – You will need 1 search for each Entity Type and 1 for active versus inactive records.

Criteria

Which records should be included in the results?

Criteria are filters on the list of results

Static field values

Examples:

- (Transaction) Type = “Sales Order”
- (Customer) Status = “Prospect”
- (Any record) Inactive = False

Formulas

Examples:

- {trandate} != {today}
- CASE WHEN {trandate} != {closedate} THEN 1 ELSE 0 END

Expressions

Example:

(
{type}=‘Sales Order’
AND
{date}={today}
) OR (
{type}=‘Estimate’
AND
{date}<{today}
)

Summary

Example:

COUNT {Item}
>= 10

Saved Search – Example Criteria

Criteria Results Highlighting Available Filters Audience Roles Email Audit Trail Execution Log Search Title Translation

Use this tab to specify criteria that narrow down your search.

USE EXPRESSIONS

Standard • Summary

FILTER *	DESCRIPTION *	FORMULA
Type	is Sales Order	
Status	is any of Sales Order:Billed, Sales Order:Partially Fulfilled, Sales Order:Pending Approval, Sales Order:Pending Billing, Sales Order:Pending Billing/Partially Fulfilled	
Main Line	is false	
Item : Discontinued Date (Custom)	is within 6/13/2024 and 9/13/2024	
Formula (Numeric)	is 1	CASE WHEN {trandate} != {closedate} THEN 1 ELSE 0 END

Add Cancel Insert Remove

Save & Run Cancel Preview New Template Change ID Actions

Using SQL Expressions

NetSuite allows us to use “SQL Expressions” (database commands) in our Saved Search formulas for criteria and for getting result data.

See the Help page titled “SQL Expressions” for the full list.

There are SQL commands for numbers, text, dates and much more.

SQL Expressions for handling “NULLs” are especially useful for field values which might be empty on some records.

These are great to use on your own, or you will find many SuiteAnswers pages suggesting the use of these SQL Expressions as well.

Datetime Functions

Function	Syntax	Short Description	Example
ADD_MONTHS	ADD_MONTHS(date, integer)	returns the date plus integer months	ADD_MONTHS({today},-1)
LAST_DAY	LAST_DAY(date)	returns the date of the last day of the month that contains date	LAST_DAY({today})
MONTHS_ BETWEEN	MONTHS_BETWEEN(date1, date2)	returns the number of months between date1 and date2	MONTHS_BETWEEN(SYSDATE, {createddate}) See also Sysdate.
NEXT_DAY	NEXT_DAY(date, char)	returns the date of the first weekday named by char that is later than the date	NEXT_DAY({today},'SATURDAY')
ROUND (DATE)	ROUND(date [, fmt])	returns date rounded to the unit specified by the format model fmt	ROUND(TO_DATE('12/31/2014', 'mm/dd/yyyy')-{datecreated})
TO_CHAR()	TO_CHAR({ datetime | interval } [, fmt [, 'nlsparam']])	converts a datetime or interval value to a value of VARCHAR2 datatype in the format specified by the date format fmt	TO_CHAR({date}, 'hh24')
TO_DATE()	TO_DATE(char [, fmt [, 'nlsparam']])	converts a formatted TEXT or NTEXT expression to a DATETIME value	TO_DATE('31.12.2011', 'DD.MM.YYYY')

Finding the right fields

To find the right field label, sometimes you have to look in more than one place.

1. View the record's screen – get the field's Label from there.
2. Edit the Form used with the record, check the field's default label, since it might not be the same label as is shown on the Form.
3. Check NetSuite SuiteAnswers.

For example, you want to include a custom field in your search criteria. Its field label is "Warranty Duration" but you don't have a field with that name available for a Criterion.

But on the Form, someone named that field, "Alternative Warranty Duration".

You need to select "Warranty Duration" for your search criteria, not using the Form's label.

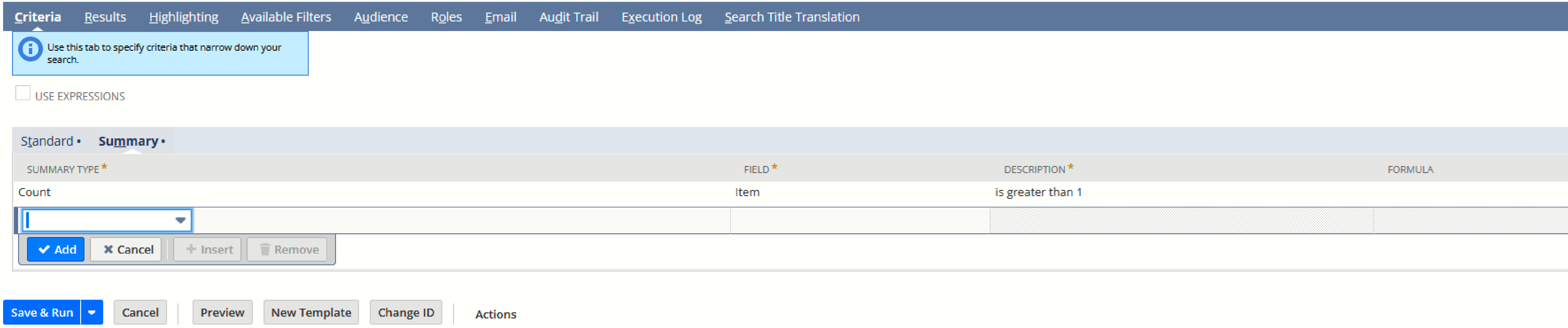
Using Summary Criteria

When you summarize your results, then you can apply summary criteria as well, if you need.

Example: You want to list all Sales Orders which fall in certain date range, and for each, you want to show how many items are on the Order.

To show the number of items on each order, you will summarize the item lines and display their “Count”.

You can then also apply the summary criteria to only show Orders with more than 1 item line.



Demo – Search Criteria

Question #5

How can you make sure that a Search returns results for any Sales Orders which were either created this year or were created by your CEO in any year?
(select one answer):

a. Use Expressions to define separate but equally valid sets of criteria.
b. Do not use Expressions but add all of your criteria in the above order.
c. That’s not possible.

Results

What do you want to know about each search result?

Results are the fields you will see as columns for each result row

Static field values

Examples:

- (Transaction)
  Type
  “Sales Order” or
  “Invoice”

  (Customer)
  Status
  “Prospect” or “Lead”

- (Any record)
  External ID, Inactive,
  Status

Formulas

Examples:

- SUBSTR({item.description}, 0,30)
- CASE WHEN {trandate}= {shipdate} THEN “OK” ELSE “Will be late” END

Functions

Example:

(Transactions)

Day, Month, Quarter, or Year

Absolute value

Round to tenths, hundredths

Summary

Example:

(Transactions)

Name (GROUP)

Internal ID (COUNT)

Saved Search – Example Results

Criteria | **Results** | Highlighting | Available Filters | Audience | Roles | Email | Audit Trail | Execution Log | Search Title Translation

Use this tab to indicate columns to be included in the search results as well as sort order.

SORT BY: Internal ID — [x] DESCENDING
THEN BY: — [ ] DESCENDING
THEN BY: — [ ] DESCENDING

OUTPUT TYPE: Normal
CONSOLIDATED EXCHANGE RATE: Per-Account
[ ] SHOW TOTALS
MAX RESULTS
[ ] RUN UNRESTRICTED
[ ] DISALLOW DRILL DOWN
[ ] MY PREFERRED SEARCH RESULTS

Columns • Drill Down Fields •

Remove all | Add Multiple

FIELD *	SUMMARY TYPE	FUNCTION	FORMULA	WHEN ORDERED BY FIELD	CUSTOM LABEL	CUSTOM LABEL TRANSLATION
Date	Group	Quarter			Quarter	
Period	Group					
Type	Group					
Document Number	Maximum					
Item						
Formula (Date)			{today}		Today	
Formula (Text)			SUBSTR({item.description}, 0, 20)		Short Item Desc.	

Add | Cancel | Insert | Remove | Move Up | Move Down | Move To Top | Move To Bottom

Sorting Results

We can sort the set of results by up to three fields.

We can sort on a field which is not shown in the results, but this can be confusing for users, so use this sparingly.

Here I am telling NetSuite to list these records in order of creation, newest first.

Advanced Results Options

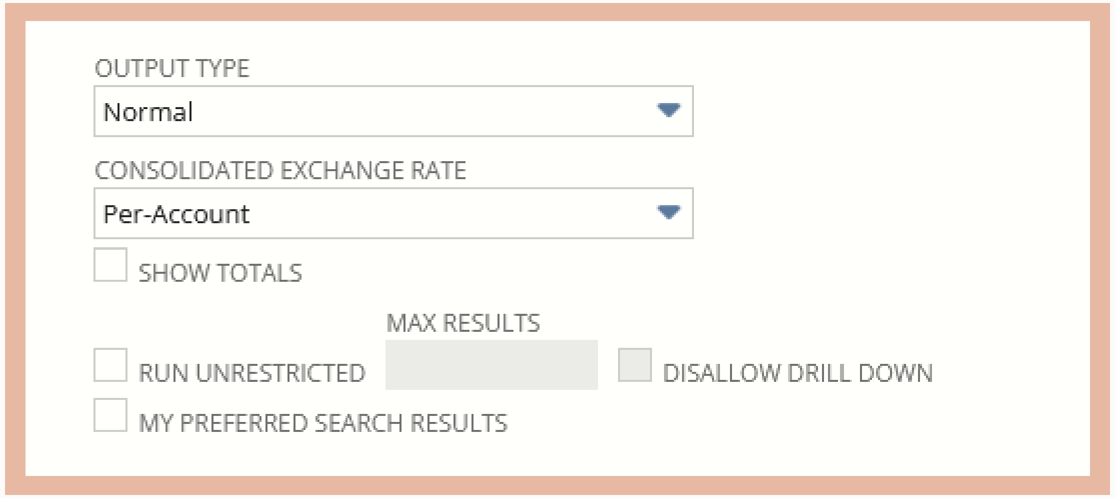
Output Type – not generally useful, but you can experiment with the options and use the one you prefer.

Consolidated Exchange Rate – important if your organization does business in multiple currencies and you need to convert (“consolidate”) exchange rates for this search. Otherwise, irrelevant.

Show Totals – tells NetSuite to sum up any number columns.

Run Unrestricted – allows you make search results available to users who do not have permissions to see the underlying records. Max Results and Disallow Drill Down can be set as needed.

My Preferred Search Results – affects how Global search results can look for this record type.



Using formulas in results

Formula (Date)	{today}	Today
Formula (Text)	SUBSTR({item.description}, 0, 20)	Short Item Desc.

Formulas allow you to:

- Handle blank values cleanly (replace NetSuite's "-None-" with some other value)
- Get the ID value for a list field
- Change text values into numbers (Location "ABC" should be output as "1", etc…)
- Find the largest Amount in a set of Orders
- And much more!

Summarizing results

Sometimes you don't want all the details, you want NetSuite to summarize results.

E.g., Your criteria include Item level fields, but you only want to see one result for each Sales Order, regardless of how many item lines it has. Use Summary results in this case.

Columns • Drill Down Fields •

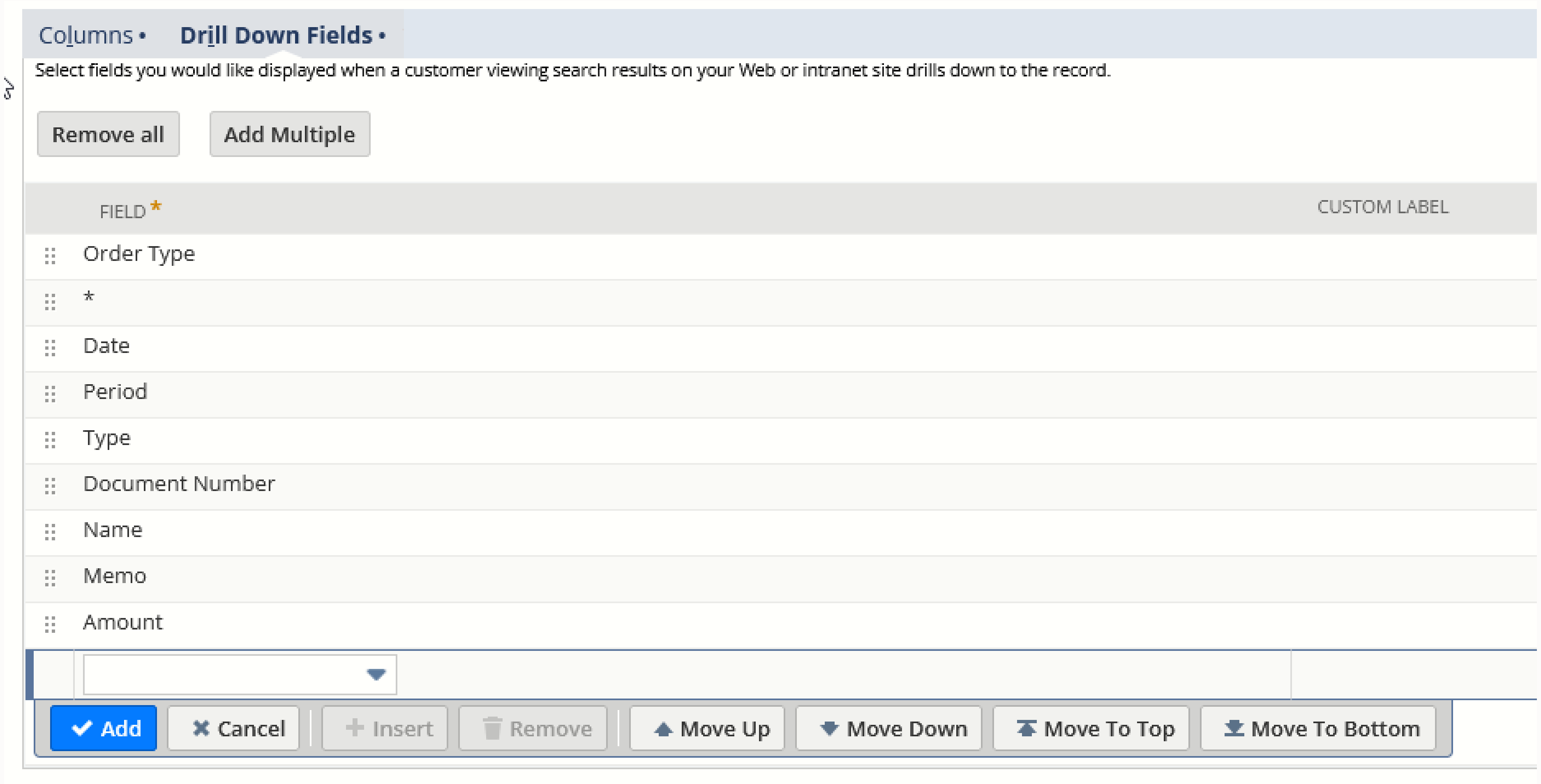
Remove all | Add Multiple

FIELD *	SUMMARY TYPE	FUNCTION	FORMULA	WHEN ORDERED BY FIELD
Date	Group	Quarter		
Period	Group			
Type	Group			
Document Number	Maximum			
Item				
Formula (Date)			{today}	
Formula (Text)			SUBSTR({item.description}, 0, 20)	
Amount	Maximum	Round		

✔ Add | ✖ Cancel | + Insert | Remove | Move Up | Move Down | Move To Top | Move To Bottom

Drill Down fields for Summarized results

NetSuite allows us to select fields we would like displayed when a customer viewing search results on the Web site or intranet site drills down to the record.



HTML Formatting results

<table><tr><td>Formula (HTML)</td><td>Maximum</td><td>''||{amount}||''</td></tr></table>

MAXIMUM OF FORMULA (HTML)
18000
3600
18000

HTML allows us to make the results look however we like –

Bolded or italicized text, custom text colors or backgrounds, text size and so on

See W3 Schools for help with learning HTML formatting:
https://www.w3schools.com/html/html_formatting.asp

Just don’t go too crazy!

Demo – Search Results

Question #6

Your Inventory by Location search is showing results for locations at which you have no stock. How can you fix that to not show those blank results?
(select one answer):

a. Set the Criteria include only item and locations which have Available Inventory > zero.
b. Summarize the Item results by Inventory Location.
c. Summarize the Item results by (Location Quantity On Hand – Location Quantity On Order).
d. Any of the above options will work.

Other Advanced Search features

How else can we make our searches shine?

Other advanced search features

Highlighting

Applies to the entire row!

Examples:

- Ship Date is within next business week Text Color = Yellow, Background color = Black

Scheduling / Emailing

Schedule a search to run every Sunday night, and email results to each Sale Rep.

Schedule a daily search for exceptions and email them to the A/P Manager.

Available Filters

Example:

(Transactions)

Allow users viewing a search to filter the results in real-time, based on things like Customer, Department or Date.

Other Purposes

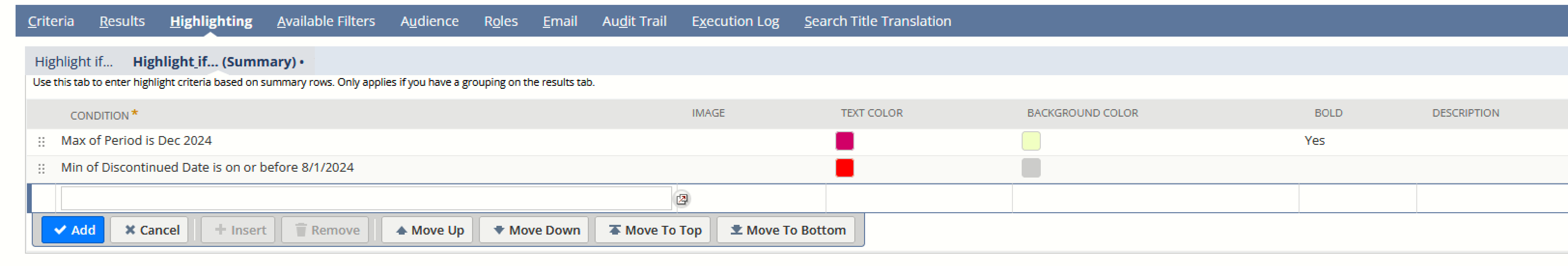
Use searches in Workflows and Scripts

Custom Fields can get their values from Searches "in real-time"

Highlighting results

When you feel it's necessary, you can highlight results based on rules.

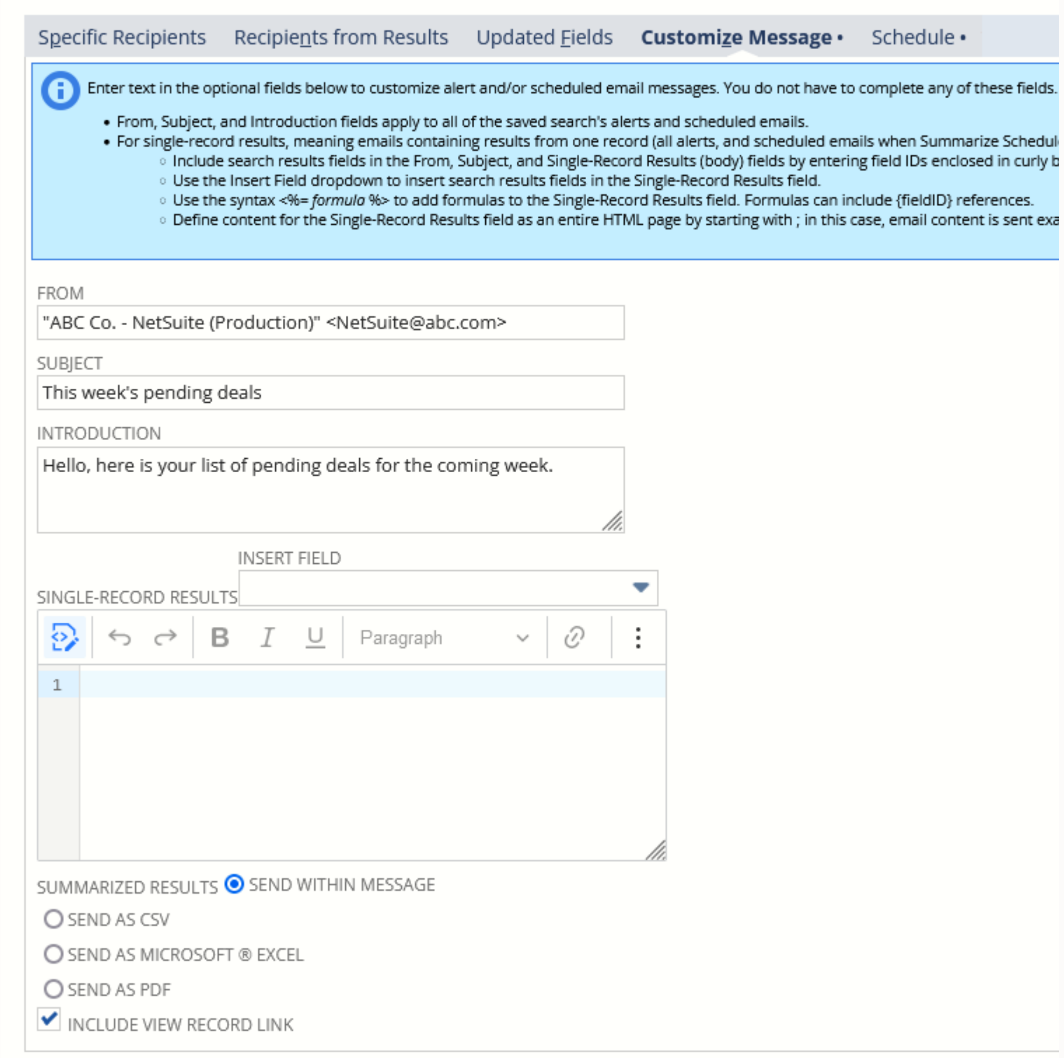
But use this sparingly as it can be really distracting when looking at large sets of results.

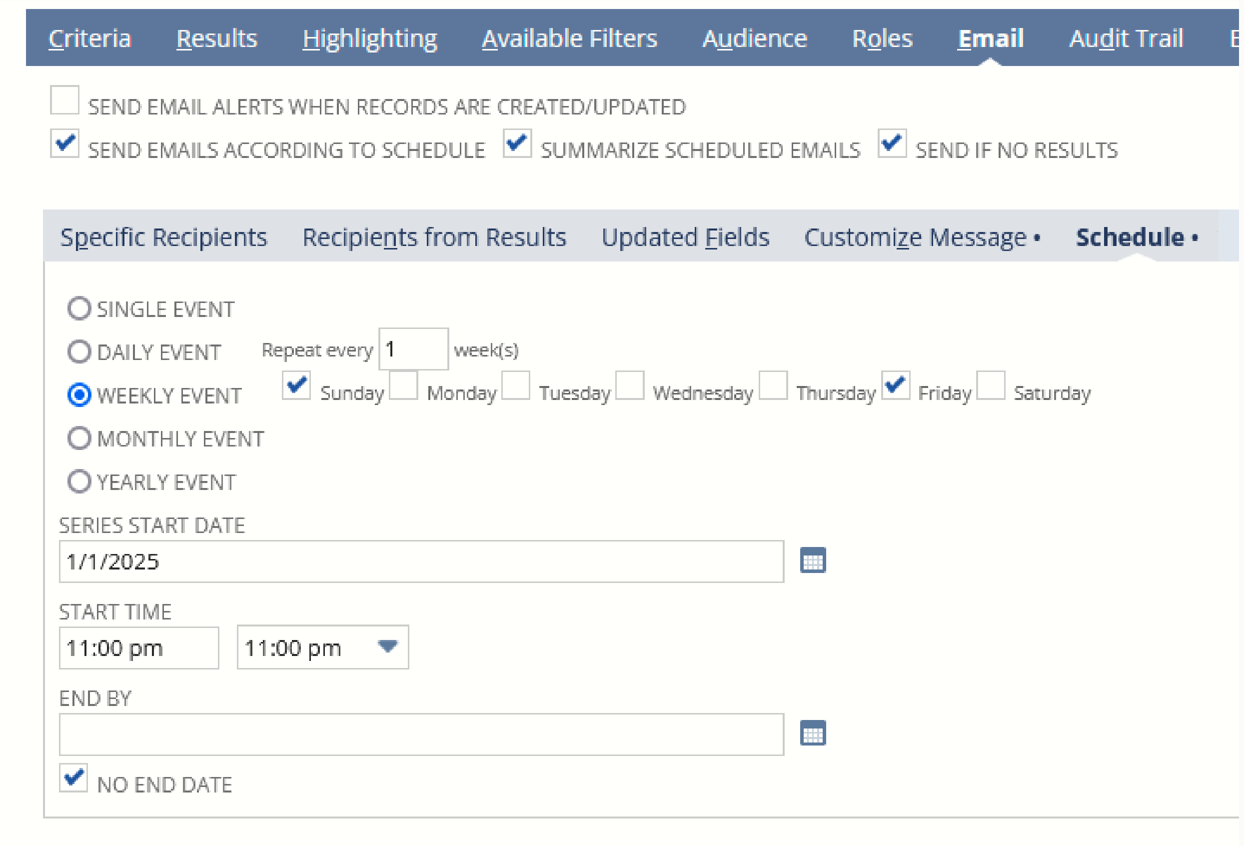


2024-Q4	**Dec 2024**	**Quote**	**1007**	**2/28/2025**	**1200**
2024-Q4	**Dec 2024**	**Invoice**	**885193**	**8/15/2024**	**9682.5**
2024-Q4	**Dec 2024**	**Sales Order**	**2164**	**12/31/2024**	**5000**
2024-Q4	Nov 2024	Invoice	0226	12/31/2024	760.98
2025-Q1	- None -	Quote	1024	2/28/2025	199.99
2025-Q1	- None -	Invoice	0229	6/30/2024	999
2025-Q1	- None -	Sales Order	2163	7/31/2024	94500

Scheduling and Emailing searches

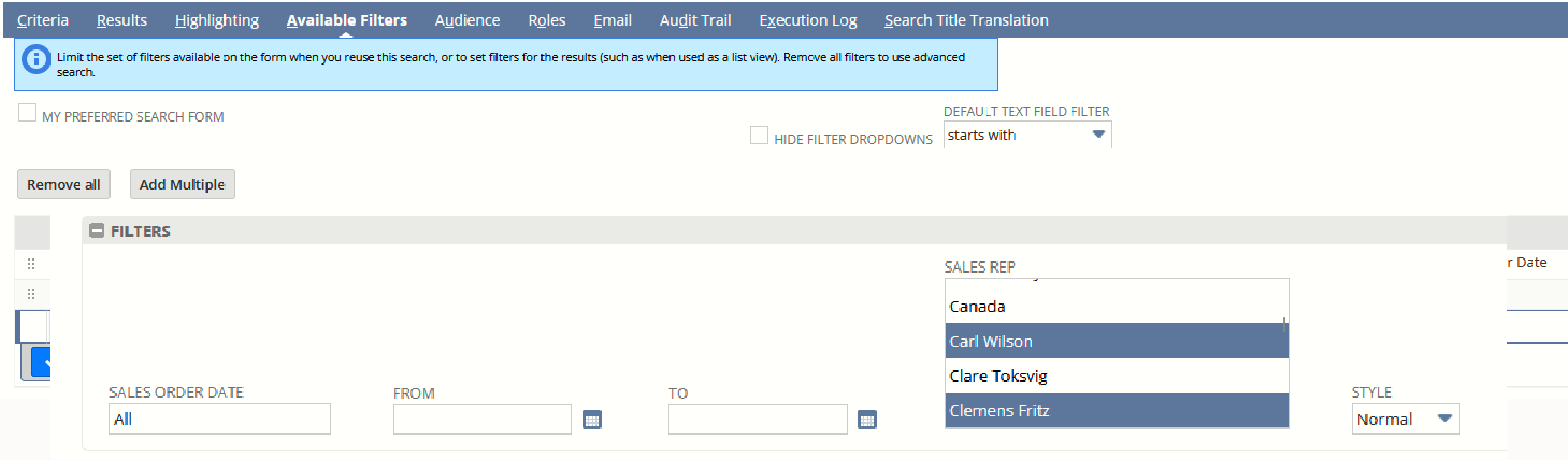
Administrators can easily automate the execution of a saved search and have the results emailed out to whoever they need.





Available Filters

When you will have users viewing the search in the NetSuite UI, you can add filters they will be able to select as they view the results.



Other uses for Searches

Scripts and Workflows

- Many scripts rely on searches for gathering data
  - If we create a search for use by a script, we should name it so people know now to remove it later on.

- Scheduled Workflows can act on the results found from a search, each time they are executed.

Auto-Populated Custom field values

- We can create custom fields whose values are derived from a saved search, each time their record is viewed in NetSuite.
  - Example: You want to add a field to Customers which will list the name of their Customer Support Lead.
    - Create the Search to filter on Customer and get that result for the only column.
    - Create the custom Entity field, and set the Saved Search to be used for its default value.
    - Whenever someone views a Customer, they will see the assigned value in a read-only field on the screen.

Demo – Advanced Search features

Best Practices

Dos – and Don’ts

Do

- Reference the NetSuite Help and SuiteAnswers for assistance creating your searches.
- Learn to find the fields you want to work with via the Help pages and record screens in your account.
- Practice and learn to use the Formulas and SQL Expressions since they can be life savers for tricky criteria and results.

Do not

- Give up! There’s almost always a way to do what you want, somehow.
- Add more fields to your searches than you really need.

Question #7

You've got a search listing Inventory changes for a specific line of products and you want that sent to your Warehouse partners (outside of NetSuite) every day. What's the best way to do this?
(select one answer):

a. Have a developer write a script.
b. Create a Workflow to execute the search and email the results as an "Action".
c. Set up the Saved Search to email its results on a scheduled basis.
d. This is not possible in NetSuite.

Question #8

Your CEO has created an “Annual Service Summary” search which pulls in transaction data for all Subsidiaries, from the most recent calendar year, and lists over 100 fields from each transaction. They complain to that the search takes a long time to produce the full set of results and they have to export it to Excel to be able to work with the data like they really need.
How can you help them fine tune the search to improve that performance time?
(select one answer):

a. Add more criteria, so they only get results they really need.
b. Remove results fields which are not strictly required for this annual process.
c. Consider summarizing the results if all of that transaction detail is not actually required.
d. All of the above.

Resources

NetSuite Help and SuiteAnswers – built into your account!

The online documentation –
https://docs.oracle.com/en/cloud/saas/netsuite/ns-online-help/

The NetSuite User Community –
https://community.oracle.com/netsuite/english/

Other online resources –
Use the search engines, Blogs, SuiteProfessionals, Reddit, etc…

Questions?

Thank you

ORACLE

Our mission is to help people see data in new ways, discover insights, unlock endless possibilities.