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Q&A

Question	Answer
Besides report linking, is there any other tips you can share to improve reports performance?	HTTPS://DOCPLAYER.NET/2388063-ORACLE-SERVICE-CLOUD-GUIDE-HOW-TO-IMPROVE-REPORTING-PERFORMANCE.HTML
I receive a lot of questions from people asking why they cannot export more than 10,000 records on some reports.	HTTP://COMMUNITIES.RIGHTNOW.COM/POSTS/EDF5EC4BF4?COMMENTID=39704#39704 HTTPS://CX.RIGHTNOW.COM/APP/ANSWERS/DETAIL/A_ID/5422 HTTP://DOCUMENTATION.CUSTHELP.COM/EUF/ASSETS/DEVDOCS/CLOUD19A/OLH/ANALYTICS/TOPICREFS/T_EXPORT_REPORT_DATA_AE1131839.HTML?HL=100%2C000 I do want to point out that queued reports do not have the 100,000 option

How to get rid of "No value" rows in a report?
 	
I want to eliminate the entire row, when specific column has a "No value" data.
	There is no out of the box feature but you can use a custom script
	
	In the process tab
	    if($rows[0][your column]->val=="")
	        unset($rows[0]);

Are there any webinars recorded covering creating reports. A little bit more basic?	There are no webinars but the Oracle University has a great module on analytics HTTPS://LEARN.ORACLE.COM/ORDS/TRAINING/DL4_PAGES.GETPAGE?PAGE=DL4CONSUMPTION&GET_PARAMS=OFFERING:45640,CONTAINER:45674 This resource should cover all their basic questions: If you're looking for a more basic review of reporting features, subscribe to the Oracle Service Cloud Learning Channel and watch the recorded classroom training on Oracle Service Cloud Analytics on the Become a Certified Cross-Channel Contact Center Implementer learning path. You'll be able to practice in a lab and ask your instructor questions. Topics covered include: Overview-Using and Customizing Reports, Using and Customizing Reports, Analytics Navigation Overview, Finding Reports, Using Reports, Publishing and Scheduling Reports, Custom Reports, Modifying Reports, Working with Filters, Using Functions, Using Variables, Using Cross Tabs, Adding Drilldown Levels, Linking Reports, Working with Table Joins, Using the Report Analyzer, Highlighting Report Data, Styling Reports, Charts, Dashboards and Exporting and Importing Report Definitions.
Let's say for agent login reports, If I just want to see Agent's last login information instead of entire login history. Right now, when I run the report, I get agents all the past logins, whereas I just need their latest login information.	Use the function last() **last(expr, sort column1[, sort column2][,...])** This function returns the last value of data set *expr* based on the order of the specified sort columns. For example, the expression last(threads.note, threads.entered, threads.seq) returns the last thread note in the data set based on time entered and thread sequence.

Do you know which PHP version is used in the custom scripts and are there any limitations to using any of the built in PHP functions?	In the process tab put this in
	
	<code> foreach($rows as $row)
	    {
	        $row[0]->val = phpversion();
	    }</code>
	
	There should not be any limitations using built in PHP functions. If the version of PHP the custom script is using can use that function you should be able to use it.

Report script does not work outside report tab? like if we call report through cphp analytic report then it skips custom script	Custom scripts only run in the console. If you try to run a report with a custom script in customer portal it will not work
Will using report linking help resolve the issue of reports simply refusing to run? Managers sometimes have to run the report 12 times, 1 time for each month, in order to get a whole year's worth of data.	Without knowing your data structure it is hard to tell if you are using drilldowns already in your report try to switch to using Report Linking as that should increase performance. Also this could just be a limitation of the data set you are using. Transactions tables are notoriously huge and you just are stuck running the report a couple times to get all the data that you need. With that being said it could help to do a monthly export of the data and then compile it the 12 months later that way you already have the data stored some place and don't have to sit and run the thing 12 times. I have monthly exports that I do every month and then at the end of the year I compile them into one data set and then do my analysis from there
We have a few dashboards that occasionally flip to deferred execution and then the dashboard will not run. We have to change them back to not use deferred execution. What strategies have you used with dashboards to ensure good performance?	I make sure that the reports used in the dashboard have good performance HTTPS://DOCPLAYER.NET/2388063-ORACLE-SERVICE-CLOUD-GUIDE-HOW-TO-IMPROVE-REPORTING-PERFORMANCE.HTML
Any workaround for the following error: The system could not add the XY table to the join tree? Basically when you cannot join the desired data to each other.	I have never seen this error but this looks like a possible defect in the product. I would get steps to reproduce and submit a support ticket to us at cx.rightnow.com and we can look into this error message
You cannot create report links from columns that display values from hierarchical fields, such as the incidents product hierarchy field. **What would you recommend or if you have done any report linking with hierarchical fields that could be shared with us?**	So I have never had to drill down on a hierarchical field before as that is not allowed in report linking. I did quite a ton of testing and I wasn't able to get anything to work even when breaking it down to the product table. Unfortunately, I think this the case that there might not be a workaround or a solution at least from my testing. I will keep my eye open for something and I will reach out to product manager to see if there is anything. If there is I will have them add it to the analytics cook book

| What would be my best option if I want to create a "in-list" filer, where table field has let's say more than 10,000 values, but it has just 5 unique/different values. And I want to filter based on those 5 different values and when user select the value from drop-down, all the records having that particular value should appear. Will creating a variable help in this case? | Yes a variable would be great in this case

Create a user defined list with your unique different values (generally a nice user friendly name)

Then setup your filters like so (obviously, use your field instead of incidents.status_id
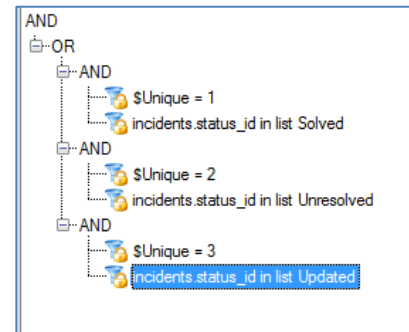
Make sure you have the Node Structure Correct
AND > OR > AND |

Are there risks with using PHP scripting that could impact site data or performance? ie, will bad code hurt more than the report?	Custom scripts in analytics is just used to manipulate the data you are not actually editing any of the data so it should not impact site data Yes custom scripts can have an impact on the performance of the report "Custom scripting is a powerful feature in Oracle Service Cloud Analytics. However, the flexibility custom scripting provides can also introduce processing that Oracle Service Cloud can't foresee. When using custom scripting, consider the impact the script will have on reporting performance" With that being said I have never had an issue with a report that has a custom script have performance issues, not to say that it could never happen. I just really make sure I think over the script benefits before I actually implement it in my reports. Bad code will only impact the report that is using that bad code. What I mean by this is that if you have bad code in a report and you try to run that report you will sometimes get an error or it will just not display the data the way you wanted. But it will not impact any other report or anything else on the site. Like I mentioned analytics custom script is just manipulating the data that is being displayed but not actually changing the data in the database.
I can export more than 10000 records in one go in "My Folder" but not for Published reports. Is there any data export limit set for published reports?	The documentation doesn't specifically state this but I did some testing and yes published reports regardless where they get published are limited to the 10,000 data limit they do not have the 100,000 option My opinion is to set a filter on the report and publish it in chunks OR to have it get published more frequently if you are doing a wide date range.
How do you identify where records created in error or not updated correctly	That seems like it'd depend on your use case as I don't really know what you mean by "created in error"?

How many reports can you link?	I do not know if there is an actually hard limit but practically speaking you are probably limited to how many columns you have in the report that can have a report link associated with it (i.e. hierarchical fields can't have a report link)
Are there any good resources on GitHub?	I have rarely seen anything for Oracle Service Cloud on Stack Overflow or GitHub

But the resources I provided in the first few slides are incredible resources to learn more about all the topics I talked about and more.

I also think it is a great idea to subscribe to our community as this really is where I get a lot of my answers from. |

When using relative date ranges there is only an option for round to beginning of day not round to end or day. For some reason this really confuses our employees that use other systems that can just choose dates (because those other systems don't use date\time fields but just date fields. What strategies have you used for date ranges that strip the time out and keep it simple for end users?	There is no way to get rid of the timestamp on a date time filter, that is just how it is in that you have to do the date and the time. There are three potential workarounds, each one does have some downsides to them but they are the best options I believe you have at the moment You could break your date it into three filters and'ed together with date_format, one on day, one on month and one on year and having people manually type in the values. This would be just a text box they enter instead of a calendar drop down. Note on this you might have to do some testing with the Operator used for on the three filters, I just used equals to show you the date_format Something you can do if you want it rounded to the end of the day is you can just have them select the next day and have the filter still be round to the beginning. This could cause some confuse though. And one finally suggestion would be to use date_trunc. You can put in date_trunc(incidents.created, DAYS) which should return for example '2019-04-15', or date_trunc(incidents.created, HOURS) should return for example '2019-04-15 14' and so when the user would run the report in the background the date_trunc would adjust the filter based on when you wanted to truncate. The gotcha is though the user would still see the timestamp you would just be doing adjustments in the background Unfortunately, most of these options can be a little confusing to the user but I think these are the best options currently.
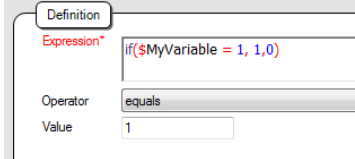
How do I eliminate duplicate rows with the same data?	Add a column to your report and add this to it **Count(distinct(incidents.i_id))** Basically replace incidents.i_id with a unique thing about that table (answers.a_id, transactions.id etc…) I then will hide this column as I really don't need to see it
Can we use if else condition within a variable	Yes both in filters and in columns In a column definition this is an example **if($MyVariable = 1, 'Blue', if($MyVariable = 2, 'Orange', if($MyVariable = 3, 'Yellow', if($MyVariable = 4, 'Green', if($MyVariable = 5, 'Other')))))** In a filter this is an example

I was hoping to follow along. I feel like this information is GREAT, and I would like to get to this level someday. However, I feel this is Calculus... and I need to start with some Algebra before I can get to the level you are presenting on. What would you suggest I do to get more familiar ... slowly... with these tools and filters? Is there a User Manual that gives me the step by step tutorials?	I would say just start to play around with analytics, try things see if they work see if they don't. Additionally Oracle University has a really great module you can go to and start to learn more HTTPS://LEARN.ORACLE.COM/ORDS/TRAINING/DL4_PAGES.GETPAGE?PAGE=DL4CONSUMPTION&GET_PARAMS=OFFERING:45640,CONTAINER:45674 This resource should cover all their basic questions: If you're looking for a more basic review of reporting features, subscribe to the Oracle Service Cloud Learning Channel and watch the recorded classroom training on Oracle Service Cloud Analytics on the Become a Certified Cross-Channel Contact Center Implementer learning path. You'll be able to practice in a lab and ask your instructor questions. Topics covered include: Overview-Using and Customizing Reports, Using and Customizing Reports, Analytics Navigation Overview, Finding Reports, Using Reports, Publishing and Scheduling Reports, Custom Reports, Modifying Reports, Working with Filters, Using Functions, Using Variables, Using Cross Tabs, Adding Drilldown Levels, Linking Reports, Working with Table Joins, Using the Report Analyzer, Highlighting Report Data, Styling Reports, Charts, Dashboards and Exporting and Importing Report Definitions
We have saved articles in field of blob type - mostly text with HTML tags. Is any way how to search for certain string occurrence in that field? For instance - to list all records which contains certain string.	So you can't filter on blob texts but I did find this community post of someone doing a quasi-way of doing it HTTPS://CLOUDCUSTOMERCONNECT.ORACLE.COM/POSTS/BE1980D0EC
Can I use "Strip HTML tags" checkbox for text formatted with HTML tags which contains HTML tags also like an example as part of the article content (not for formatting text itself)?	I think what you are asking if you can dump some HTML tags and not others. I think this would be generally difficult to differentiate between HTML tags that are for formatting and HTML tags that are actually part of the thread, but a custom script would be the only place to try and do this. You should try and do some testing with a custom script and see if you can get the results that you are looking for.

I have a query on data export and data export limit in public reports	Sorry, this is just a bit broad to be able to fully answer this but here is some documentation HTTPS://DOCUMENTATION.CUSTHELP.COM/EUF/ASSETS/DEV DOCS/CLOUD19A/OLH/ANALYTICS/TOPICREFS/T_EXPORT_R EPORT_DATA_AE1131839.HTML HTTP://COMMUNITIES.RIGHTNOW.COM/POSTS/EDF5EC4BF4 ?COMMENTID=39704#39704 HTTPS://CX.RIGHTNOW.COM/APP/ANSWERS/DETAIL/A_ID/5 422
Do you have experience embedding a report onto an email notification? If so, could you share an example?	I'm not sure if you are talking about Message Templates or Mailings. But usually the biggest think here is to watch that the data is relevant to the audience... for customer facing emails (from outreach and message templates) the report should have a filter on the contact ID and the report within the component should have the automatically apply primary filter enabled. Also, you will want to watch how you format the output of the report.
Do you have any good examples of how you can do data comparisons for time periods? Like comparing 2018 to 2019 data?	I would look into Comparison values HTTP://DOCUMENTATION.CUSTHELP.COM/EUF/ASSETS/DEV DOCS/CLOUD19A/OLH/ANALYTICS/TOPICREFS/T_ADD_A_C OMPARISON_VALUE_COLUMN_TO_A_REPORT_AH1134670 .HTML?HL=COMPARISON%2CVALUE Here is an example of how you can use it HTTP://COMMUNITIES.RIGHTNOW.COM/POSTS/717401A6F 3?COMMENTID=3930#3930
For the reports embedded in workspace tab, Is it possible to dynamically pass a parameter like filter the report based on contact email addresses. The report contains rows from a custom object	You can only do the 'filter on primary key' checkbox As a potential solution you can have a report with a docked filter on email address and then have the report not run when the workspace opens. After which you then can get the email address and put it in the docked filter. I know that is not a perfect solution but that really is the only way that you can do something other than a primary key filter

Can we get rightnow generated mail header when agents replies to end-user as few tables are hidden for analytics usages?	We don't store any outgoing email header info. You should be able to get most of the data from the incident table like subject, to, cc, some timestamp I'm not really sure what is a good answer here without more context

I am trying to write a filter that will allow a user to enter the digits-only of a contact phone number, and have the report search the OSvC Contact table, without evaluating non-integer characters such as +, -, (), etc.	Each of the Phone fields on the contact object has a corresponding Unformatted/Raw Phone field. The raw field is the numeric characters from the phone number only.
	
	contacts.any_phone_raw
	contacts.ph_asst_raw
	contacts.ph_home_raw
	contacts.ph_mobile_raw
	contacts.ph_office_raw
	
	To ignore the + at the beginning of the string and search/match on the remaining digits in the phone number
	
	      Expression: concat(' ',
	      contacts.any_phone_raw)
	      Operator: =
	      Value: <blank>
	
	HTTPS://CLOUDCUSTOMERCONNECT.ORACLE.COM/POSTS/B4951BACD2?COMMENTID=165732#165732
	
	HTTP://COMMUNITIES.RIGHTNOW.COM/POSTS/622F7AD596?LANG=EN_US

Can you show an example in OSC of how you use variables in filters? **Can you do a live demonstration of how to set up variables?**	You can see the live demonstration HTTPS://VIDEOHUB.ORACLE.COM/MEDIA/T/1_D1XO8A6K I also have detail instructions below

Setting up Variable

Navigate to
Home > Data Set > Variables

Click Add Variable

Add Variable

Select "User Defined List" from Type* DropDown

Select the Data Type* you want to use, I normally use Integer as I find it easiest to use

Click "Add Item" to add your items
The Name is what will be displayed in the DropDown
The Value is what you will use to setup the filters

You will need to select a Default* value

Setup Filters

Navigate to the Filters
Home > Data Set > Filters

Click "Add Filter"

Unckeck the "Make this filter selectable at runtime"

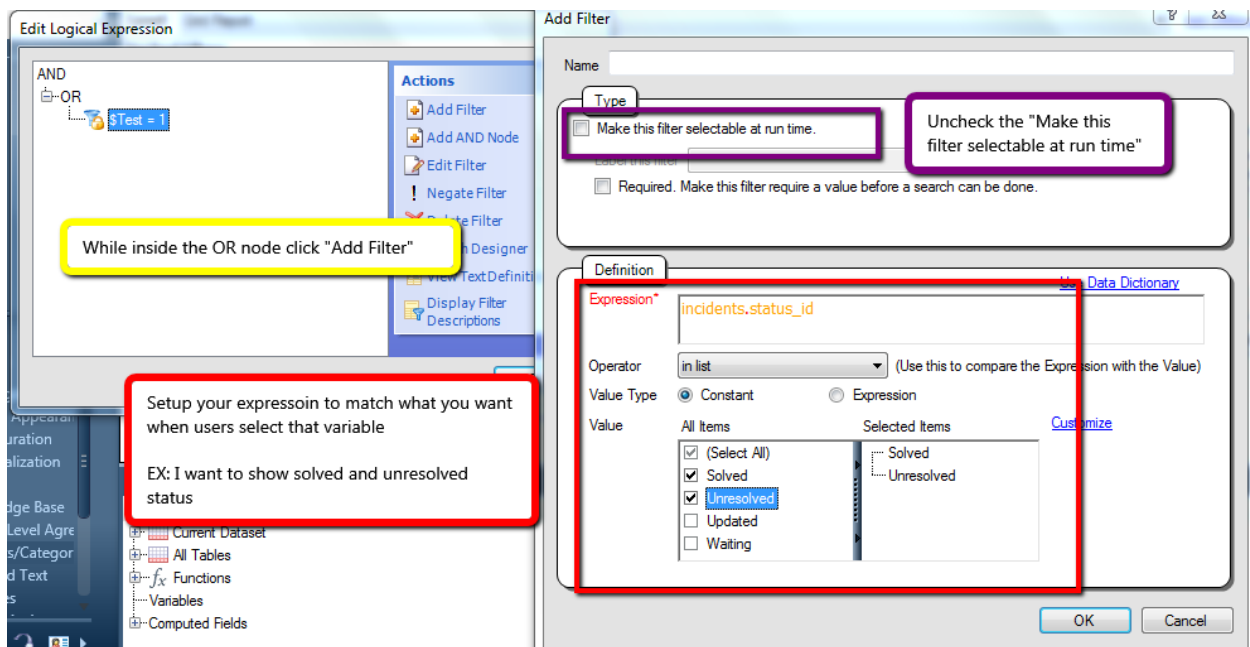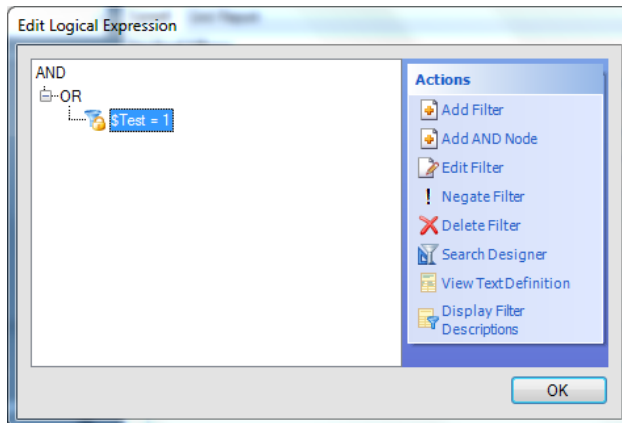In the expression find your variable (you can start typing $ and then you should see in the dropdown)

Set the operator to "equal"

Make the value what you want (this is the value from your variable you setup)

After you add one filter the "Add OR Node" will appear (left picture)
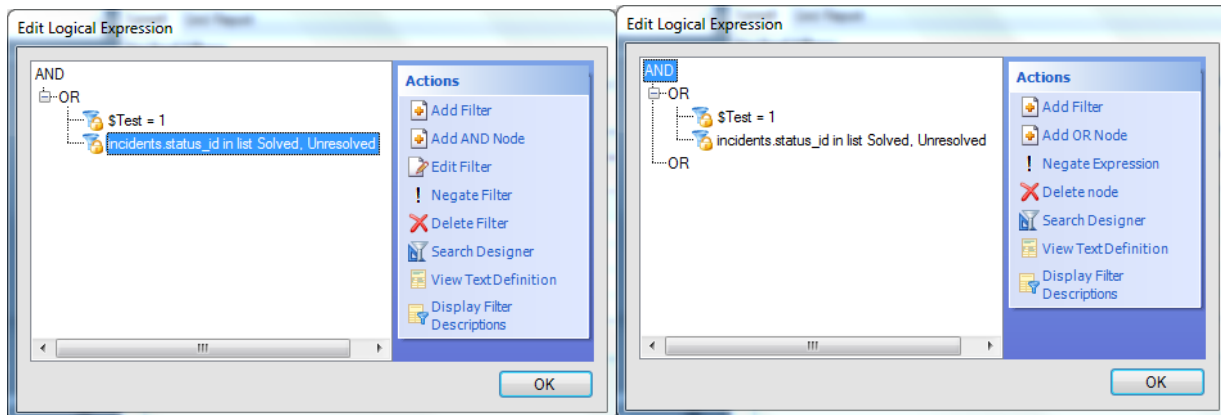**Click "Add OR Node" (right picture)**
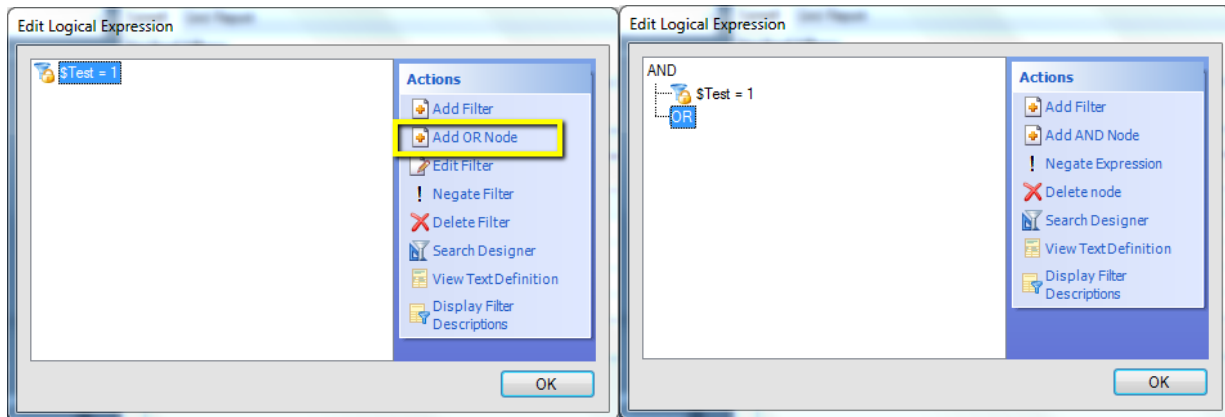
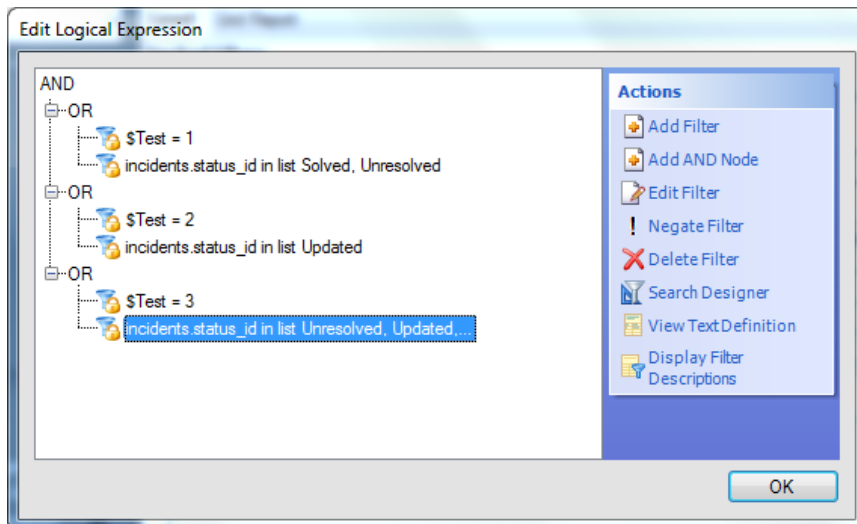**You then will need to drag your filter into the OR Node**

Your filter structure will look like the below (left picture)
Click the "AND" node and then on the Actions tab click "Add OR node" (right picture)

Then continue adding filters and OR until you have all your variables covered

Custom Scripts

Remove HTML Tags

Process Tab

```
foreach($rows as $row)
{
        1.   $row[6]->val = strip_tags($row[6]->val);
        2.   $row[6]->val = str_replace(' ',' ', $row[6]->val);
        3.   $row[6]->val = htmlspecialchars_decode($row[6]->val);
}
```

Line 1 Find the column you want to strip the tags
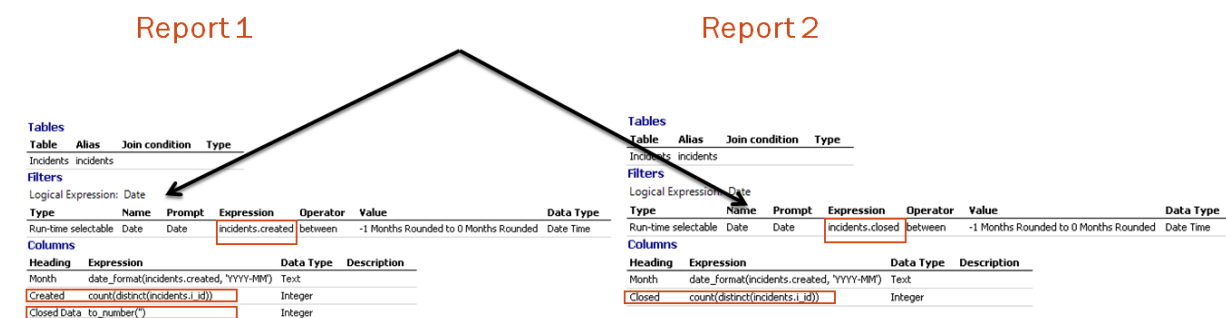
Line 2 put in the html tags you want to replace/remove

Line 4 converts some predefined HTML entities to characters.

    HTML entities that will be decoded are:

- & becomes & (ampersand)
- " becomes " (double quote)
- ' becomes ' (single quote)
- < becomes < (less than)
- > becomes > (greater than)

Call another Report

Reports setup

Report 1 Setup (parent report & report with the custom script) > Getting incidents created

3 Columns needed

0.   Month > this is how we are going to link the correct counts to the correct row for both created via this report and closed for the custom script report

1.   Created > this is how many incidents were created

2.   Closed Data > this is what we are going to be filling in with our custom script

1 Filter needed

1. Run time selectable on incidents created
2. Make sure the name of the filter is named Date (it isn't as important on this report but it makes things way easier to debug if they are named the same)

Report 2 Setup (child report) > Getting incidents closed

2 Columns needed

3. Month > this is how we are going to link the closed count to the correct row
4. Closed > this is how many incidents were created

1 Filter needed

3. Run time selectable on incidents closed
4. Make sure the name of the filter is named Date or whatever you named it in the parent report

Setup Custom Script (On Report 1)

Initialization Tab

```
require_once(get_cfg_var('doc_root').'/include/ConnectPHP/Connect_init.phph');
initConnectAPI();
use \RightNow\Connect\v1_2 as RNCPHP_my_report;

$ar = RNCPHP_my_report\AnalyticsReport::fetch(489650);
$val1= $params["search_args"]["search_field0"]["val"];
$filters = new RNCPHP_my_report\AnalyticsReportSearchFilterArray;
foreach($ar->Filters as $filter)
{
        if($filter->Name == "Date")
        {
                $textFilter = new RNCPHP_my_report\AnalyticsReportSearchFilter;
                $textFilter->Name = "Date";
                $textFilter->Values = array($val1);
                $filters[] = $textFilter;
                break;
        }
}

global $rptVal;
$arr = $ar->run(0,$filters,100);
$arr2 = $ar->run(0,$filters,100);
```

- Fetch the report that you are going to run

- Set the filter parameter you want into a variable (since we only have 1 filter it is simple as it is just search_field0)
  - If there are more you will need to add more variables
- Then you need to loop through all the filters and link the parent filter to the child filter
  - The *$textFilter->Name* should be the name of the filter on the child report (this is why I named them the same in case you can't remember you will always make sure you are referencing the correct filter)
  - The *$textFilter->Values* should be the variable that correlates to the parent filter that you are wanting to link (note you need the variable inside the array() otherwise it will not work
- If you have more than one filter, just keep copying the If{} section, change the fields to appropriate values and then you will change the break to a continue and only have the break in the last filter structure
- Create a global variable, this is what you are going to populate with the data that will go in the column and will be passed to the Process Tab
- Then you are going to run the report

```
$nrows= $arr->count();

if($nrows)
{
        $finalData = array();
        $dateArr = array();
        $closed = array();
        while($row = $arr->next())
        {
                array_push($dateArr,$row['Month']);
        }
        $closedArr = array();
        while($row = $arr2->next())
        {
                if($row['Closed'] != null)
                        $closedArr[$row['Month']] = $row['Closed'];
        }
        foreach($dateArr as $date)
        {
                $finalData[$date] = array('CData'=>$closedArr[$date]);
        }
        $rptVal = $finalData;
}
```

- If there are rows in the report it will then go through and get the column data, link it to a key and then put it in the global variable
- The first while is pushing the "Month" data into an array, this is name of the column in report 2 that will be the linking/key to the data
- The second while is pushing the "Closed" data (the name of the column in report 2 that has the actually data) into an array that has the "Month" data (name of the key in report 2)
- Then for each of the keys "Months" you will find the matching "Closed" data and push them into an array and pass that array to the global variable

Process Tab

```
global $rptVal;
for($i = 0; $i < count($rows); $i ++)
{
        $monthID = $rows[$i][0]->val;
        $arr = $rptVal[$monthID];
        $rows[$i][2]->val = $arr['CData'];
}
```

- Set the global variable, the same as what you called in the initialization tab
- Loop through each of the rows and get the parent key, "Months", it should be the same key that you were using in the child report
- Then you are going to break the global array $rptVal out by the name that you put the data in, we put the closed data into "CData"

Key things that make this easier
- If you need to have a dynamic filter, name the parent and child filter the same
    - My example was "Date"
- Make sure your "Key" value, what is going to make sure the data goes to the right place the same name in the parent and child report so you can easily recognize what is linking the data together
    - My example was "Month"