Reference qualifier

Use reference qualifiers to create filters that restrict the data that is returned for a reference field. There are 3 types of Reference qualifier in ServiceNow,

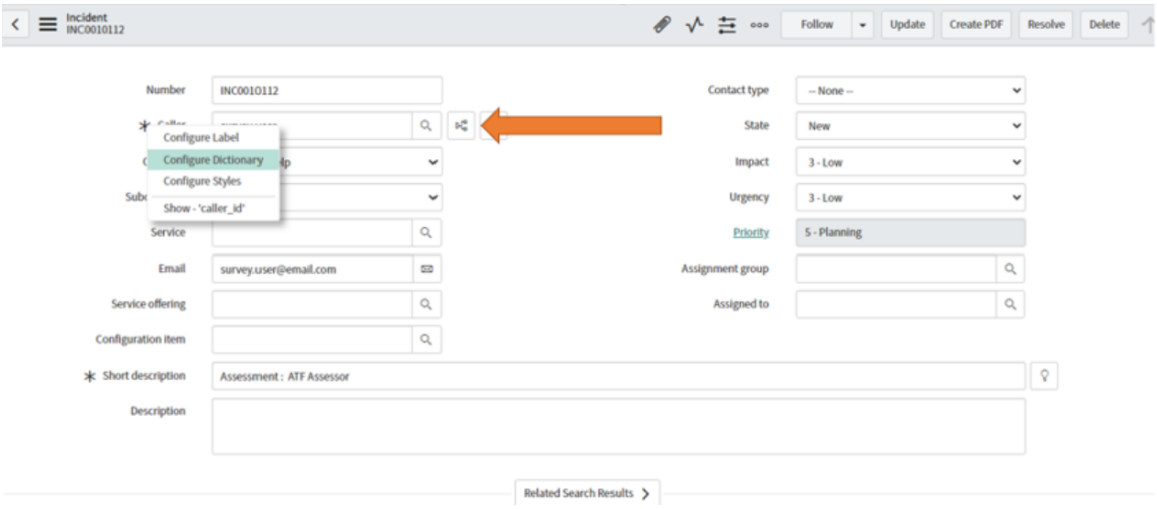
1. Simple Reference Qualifier.
2.Dynamic Reference Qualifier.
3.Advanced Reference Qualifier.

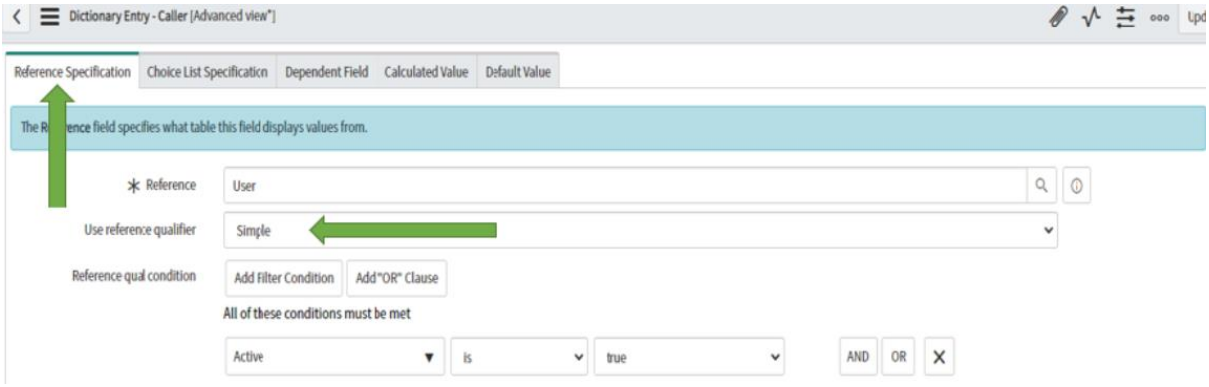
How to Reach Reference Qualifier in OOB Table or Custom Table : - Open any Table of Your Choice: - Incident/Problem/Change.

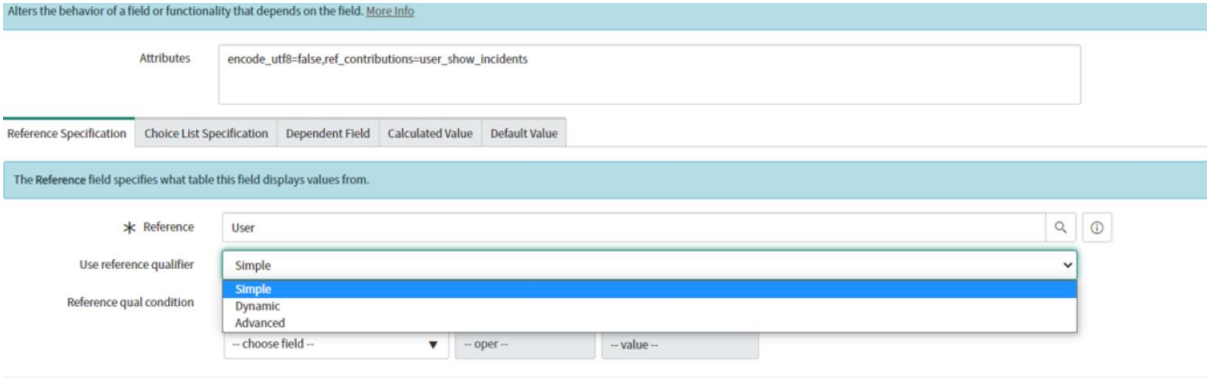
- Step 1:-Application Navigator>Incident>Open Existing Record or Create New.
- Step 2:-Right Click on Any Reference Field i. e. Caller
- Step 3:-Configure Dictionary.

Simple Reference Qualifier

Simple reference qualifier is used when you want to filter the rows using AND/OR conditions. For example, if you want to filter all users which are active, then you can use simple reference Qualifier.







Reference Specification - Additional Customization

Dynamic Reference Qualifier

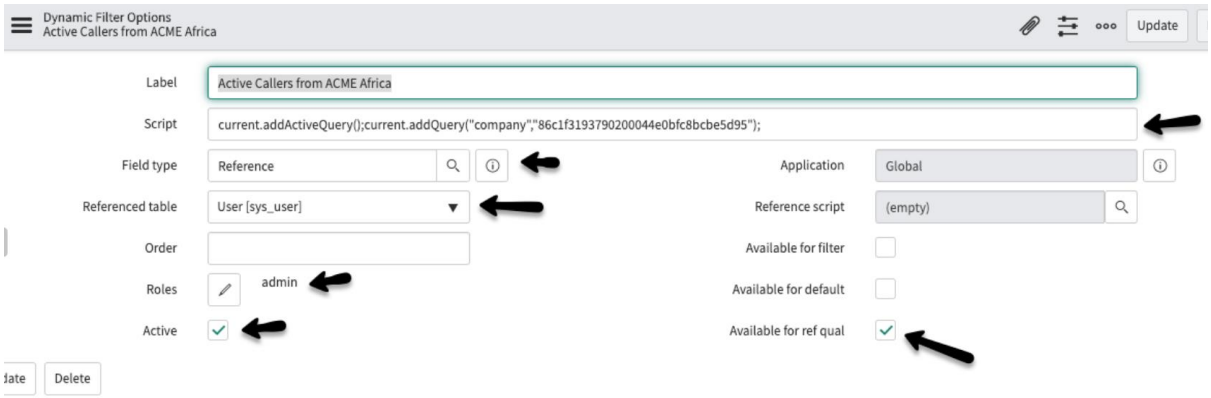
Dynamic reference qualifiers enable you to use a dynamic filter option to run a query against a reference field to filter the returned data set. Dynamic filter options are stored filters that can contain encoded query strings, JavaScript, or script includes and can be used in multiple dynamic reference qualifiers.

The base instance provides several OOB dynamic filter options. If a dynamic filter option that meets your needs does not exist, you can create a new dynamic filter option that is specific to your requirements.

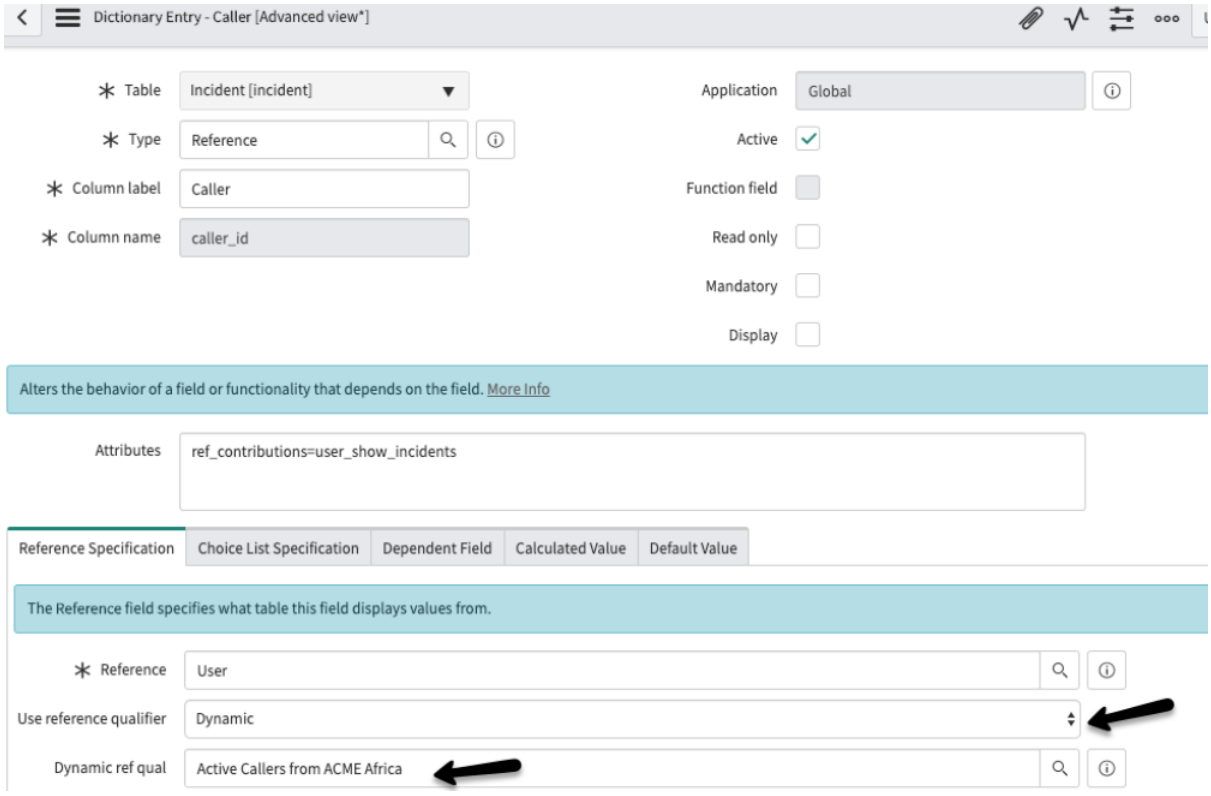
To locate the available dynamic filter options, navigate to System Definition → Dynamic Filter Options. In the right-corner of the Dynamic Filter Options list, click the filter icon and create the filter condition Available for ref qual is true. All dynamic filter options that can be used in dynamic reference qualifiers appear.

Let us try to use the same example of active callers using Dynamic Reference Qualifier.

- First let's create a dynamic filter as shown in below screenshot.
- Then go to reference specifications and update the reference qualifier to dynamic and use that filter as shown in below screenshot.

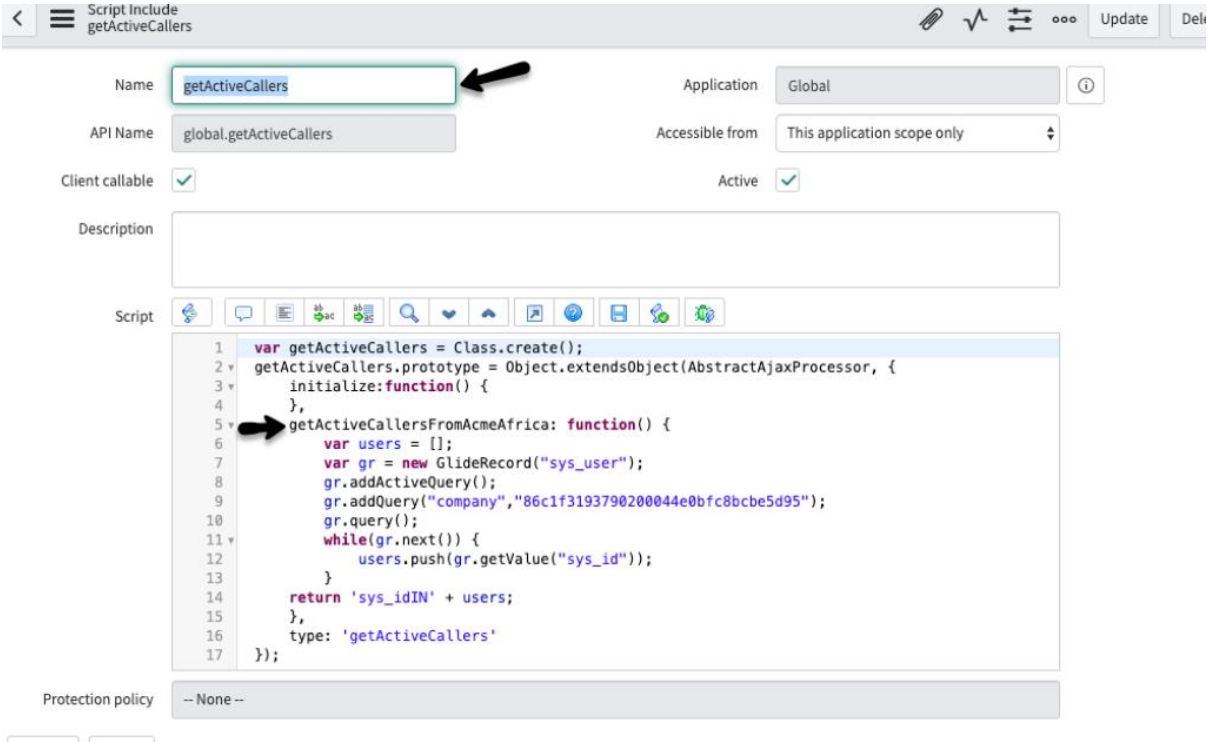


Then configure the Reference Qualifier as below.

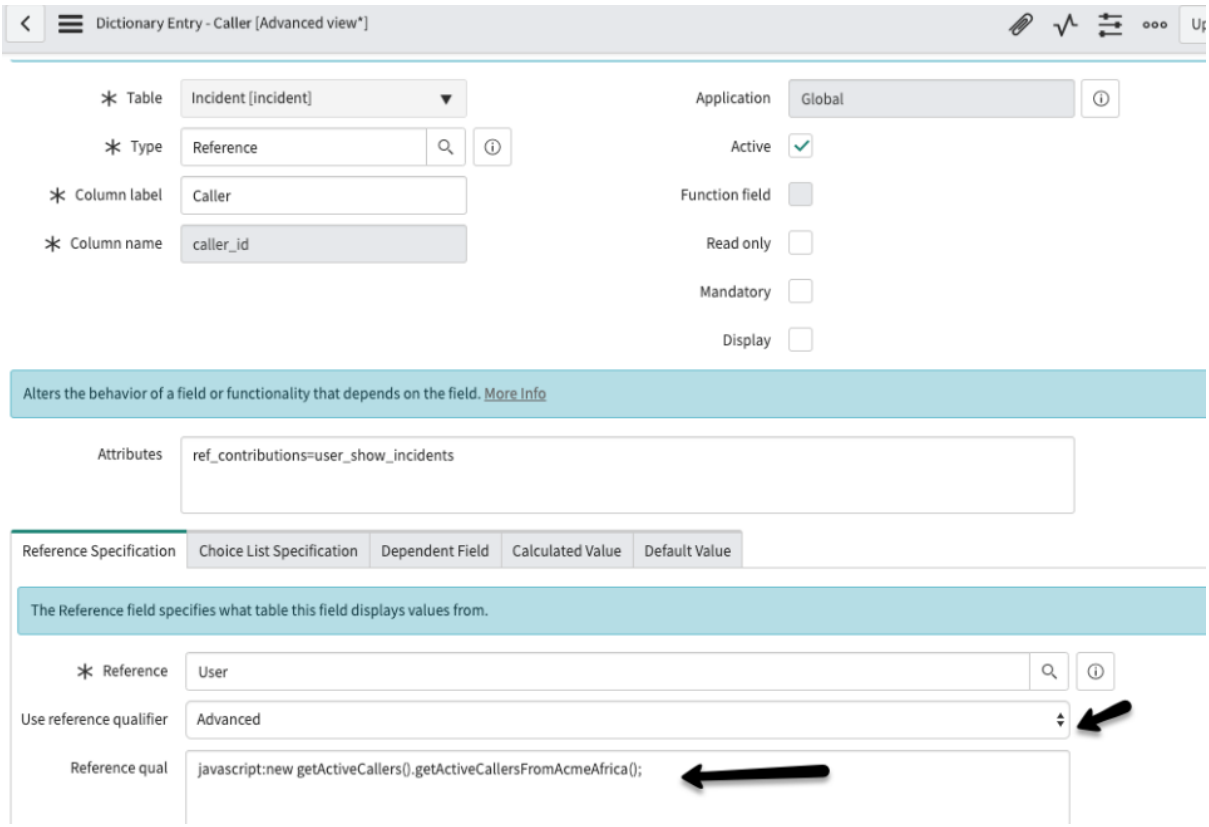


Advanced Reference Qualifier

Advanced reference qualifiers enable you to write a script to filter the result set which you cannot do either with simple or dynamic reference qualifiers. Also with Advanced reference qualifier, you can filter the result set based on the other field.
Here is how you can configure advanced Reference Qualifier.
Let us write a simple script include which returns the active callers who belong to ACME Africa Company.



Now Call this Script Include from the reference Qualifier like below.



Use of INSTANCEOF operator in a reference qualifier:-
we can use the **INSTANCEOF** operator in a reference qualifier to shorten or simplify a complex class qualifier.

Use of INSTANCEOF Operator

Scenario :-

Scenario 1:-

We need all the Active users in Caller Field and all users must belong to IT Team only.(use Simple)
Just add simple qualifier and use condition builder to filter these 2 fields.

Scenario 2:-

I want the VIP user available in Caller Field of Incident Table:-
You can use the Simple Variable with just add the Condition builder.

Scenario 3:-

When we click on Caller Field, we must get reflected as per current logged in user. If user belongs to IT Team then user from IT Team Must gets displayed when we click on look up Icon.

```
department:function()
 {
var gr=new GlideRecord('sys_user');
gr.addQuery('sys_id',gs.getUserID()); gr.query();
if(gr.next())
{
return "department"+"="+gr.department.toString();
}
},
```

Scenario 4 :-

Set a person who belongs to the same department as the applicant's department.

```
getDepartmentUsers: function() {
var userRec = new GlideRecord('sys_user');
userRec.get(gs.getUserID());
var department = userRec.getValue('department');
var usersList = [];
var grUser = new GlideRecord('sys_user');
grUser.addQuery('company', gs.getUser().getCompanyID());
grUser.addQuery('department', department);
grUser.query();
while(grUser.next()) {
usersList.push(grUser.getUniqueValue());
}
return 'sys_idIN' + usersList;
},
```

Scenario 5 :-

I have a couple of Reference Fields. If I click on the look up icon I want the data to be populated depending on some filters or query..and every user can see data depending on his category.

```
department:function()
{
var gr=new GlideRecord('sys_user');
gr.addQuery('sys_id',gs.getUserID());
gr.query();
```

```
if(gr.next()){
return "department"+"="+gr.department.toString(); }
},
```

Scenario 6 :-

Requirement to filter user in field Creator (Reference to sys_user), dependent group user login.

```
createGroup :function()
var grpcr;
var usr=gs.getUserID();//get current logged in user Id
var usrarr=[];
var groupss=new GlideRecord('sys_user_grmember');
groupss.addQuery('user',usr);
groupss.query();
while(groupss.next())
{
grpcr=groupss.group;
}
```

Scenario 7 :-

select the Manager in 1 reference field, and his Manager (selected manager's) needed to be shown in other Reference Field.

```
var var sys_id="";
var gr=addNotNullQuery('manager');
gr.query();
while(gr.next())
{
sysid=sysid+", "+gr.manager;
}
return ' sys_idIN'+sysid;
```

Scenario 8 :-

select the Manager in 1 reference field, and his (selected manager's) related members only needed to be shown in other Reference Field.

```
var var sys_id="";
var gr=addNotNullQuery('manager',manager);
gr.query();
while(gr.next())
{
sysid=sysid+", "+gr.manager;
}
return 'sys_idIN'+sysid;
```

Scenario 9 :-

The User wants to have Assignments Group Visible:-

Use below Reference Qualifiers

```
function getCaseGroups() {
var groupNames = "Accounts Receivable _ JIB, Revenue, Division Order, Payables, Regulatory, Production Reporting, Lease and Contracts Information, Land and Operations, SCOR Customer Care Center";
```

```
return groupNames;
}
```

Some Important Notes and Best Practices about Reference Qualifier:-

- If You have added Reference Qualifier on variable set then it will not work on the variables outside the Variable Set or Vice Versa with Variables.
- Reference Qualifiers are only Applicable to Reference Fields or Reference Variables
- It is Best Practice to add Script Include instead of Global Business Rule in Reference Qualifiers.