

APAR : IV38116

Problem:

When you use the Search Filter on any IBM Security Identity Manager forms, if you add the source entity with an attribute (Source Attribute) of multiple values, multiple values are displayed in comma-separated strings instead of showing the "attribute" of the source entity when you reopen the form.

Symptom:

Incorrect IBM Security Identity Manager behavior when a drop-down menu is configured with multi-valued source attribute.

Cause:

The Search Filter widget was not designed to support multi-valued source attribute.

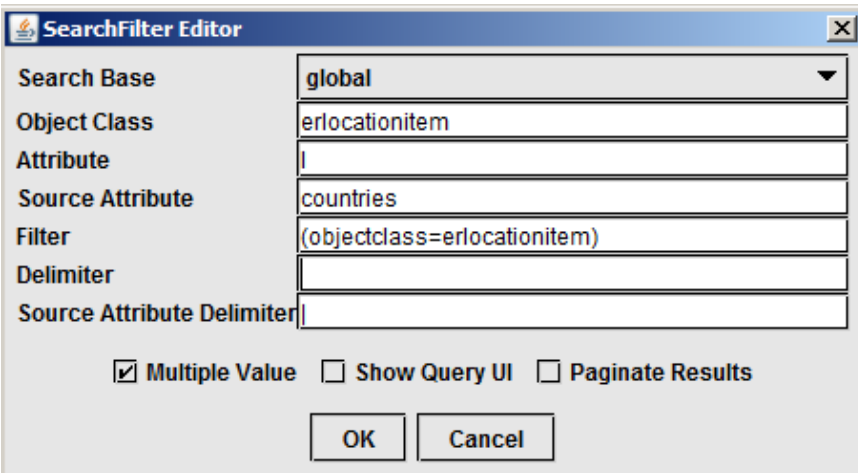
Resolving the problem:

IBM Security Identity Manager provides a fix to resolve the display attribute correctly when multiple values are stored for a source attribute that are configured in the Search Filter widget.

A new configurable field, **Source Attribute Delimiter**, is added in the **Search Filter Editor** dialog box.

Here are some important things to remember when using the **Source Attribute Delimiter**

- The administrator can specify a delimiter in the **Source Attribute Delimiter** field. IBM Security Identity Manager uses the delimiter to separate the multiple values, while constructing a value string to be set on the attribute configured as Search filter. For example: If an attribute, say "Region", on Person form is configured as a Search Filter with following fields:



The screenshot shows the 'SearchFilter Editor' dialog box. It contains several fields: 'Search Base' (a dropdown menu showing 'global'), 'Object Class' (a text field with 'erlocationitem'), 'Attribute' (a text field with 'l'), 'Source Attribute' (a text field with 'countries'), 'Filter' (a text field with '(objectclass=erlocationitem)'), 'Delimiter' (an empty text field), and 'Source Attribute Delimiter' (an empty text field). At the bottom, there are three checkboxes: 'Multiple Value' (checked), 'Show Query UI' (unchecked), and 'Paginate Results' (unchecked). Below the checkboxes are 'OK' and 'Cancel' buttons.

For a selected location, **EMEA**, if the **countries** attribute has the following values: **UK, France, Germany**, then on the person's **Region** attribute, they are stored as **UK|France|Germany**.

IBM Security Identity Manager uses '|' to separate the individual values. It is also used to construct LDAP search filter.

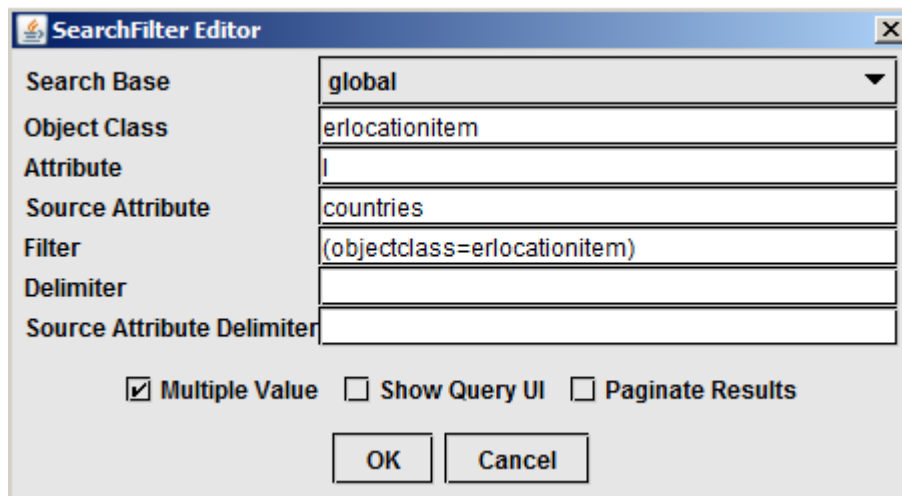
For example: Part of the filter will look like:

```
(&(countries=UK)(countries=France)(countries=Germany))
```

If any location entity is found with all these values, the **Attribute** (I in the above example) value in the source entity is displayed. Otherwise, the stored value is displayed.

- The **Source Attribute Delimiter** field in the **Search Filter Editor** dialog box is optional. By default, there are no values specified for it. It can be configured to use a single or multiple characters as source attribute delimiter.
- The delimiter must be configured to a value that is not in the source attribute values. Otherwise, IBM Security Identity Manager cannot retrieve the individual values accurately and the source entity is not resolved properly.
- If the source attribute delimiter is not specified, and the source attribute of the entity contains multiple values, then the values are stored without any delimiter.

For example: If an attribute, **Region** on Person form is configured as a **Search Filter** with following fields:



For a selected location, EMEA, if the **countries** attribute has values, **UK, France, Germany** then on person's **Region** attribute they are stored as **"UKFranceGermany"**.

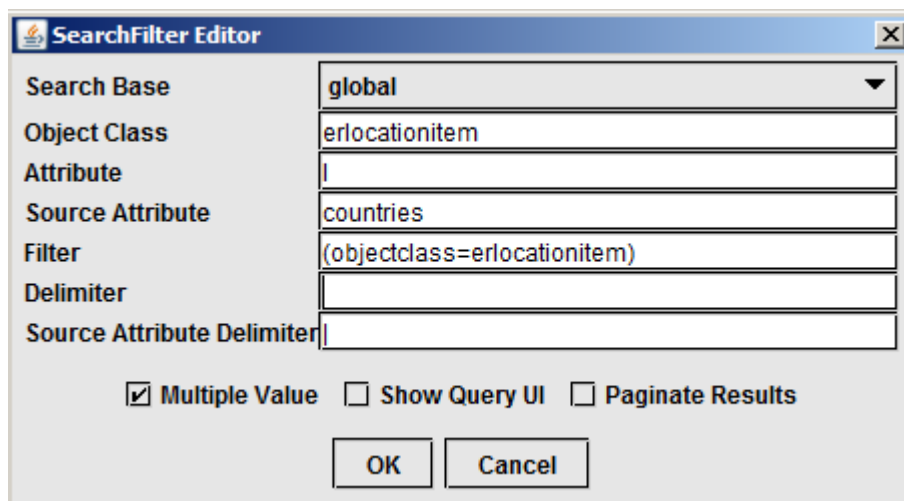
When user opens the person form, IBM Security Identity Manager will not find a

location with the value **UKFranceGermany** in the **Countries** attribute.

Hence, IBM Security Identity Manager does not resolve the value and display it as it is instead of displaying **EMEA**.

- While rendering the form, IBM Security Identity Manager tries to separate the values using the configured delimiter and form the LDAP search filter using each separated individual values. If an entity matching the LDAP search filter is found, then the display attribute is shown on the form. Otherwise the stored value displays. This also means that if the source attribute value set on the source entity has some additional data, then IBM Security Identity Manager resolves the display attribute value using the values in the target entity.

For example: If an attribute, **Region** on person's form is configured as a Search Filter with following fields:



For a selected location, **EMEA**, if the **Countries** attribute has values, **UK, France, Germany**, then on person's **Region** attribute, they are stored as **UK|France|Germany**.

If the **EMEA** location is modified, and a new value, **Sweden** is added to **Countries** attribute, IBM Security Identity Manager still resolves the **Region** as **EMEA**, when a user opens the form.

The new value, **Sweden**, is added to the **Region** attribute only when the existing location, **EMEA**, is removed and then added again in the person form. Otherwise, the person's **Region** value set is not modified.

- The **Source Attribute Delimiter** is used only for **Source Attribute** and not in the **Attribute** fields. If the multi-valued source attribute is also configured as display attribute (source and display attribute are same) and multiple values exist on source entity, then on the form (e.g. person, account etc), IBM Security Identity Manager only shows the first value.

However for the same scenario, IBM Security Identity Manager shows multiple values as a comma separated list, in the to-do information table, provisioning policy entitlement table, service defaults, and so on. This is the current design behavior at time of writing this document.