Build IDM compliance reports with ease

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by Andreas Fuhrmann, SKyPRO AG, Switzerland

The Micro Focus Identity Manager Advanced Edition is delivered with a reporting engine containing about forty predefined reports. If you ever have had the time to install and configure it you know about the complexity of this module. Our new IDM Audit & Compliance Dashboard v2.0 offers with its report wizard and report editor a much easier approach to build your own compliance reports.

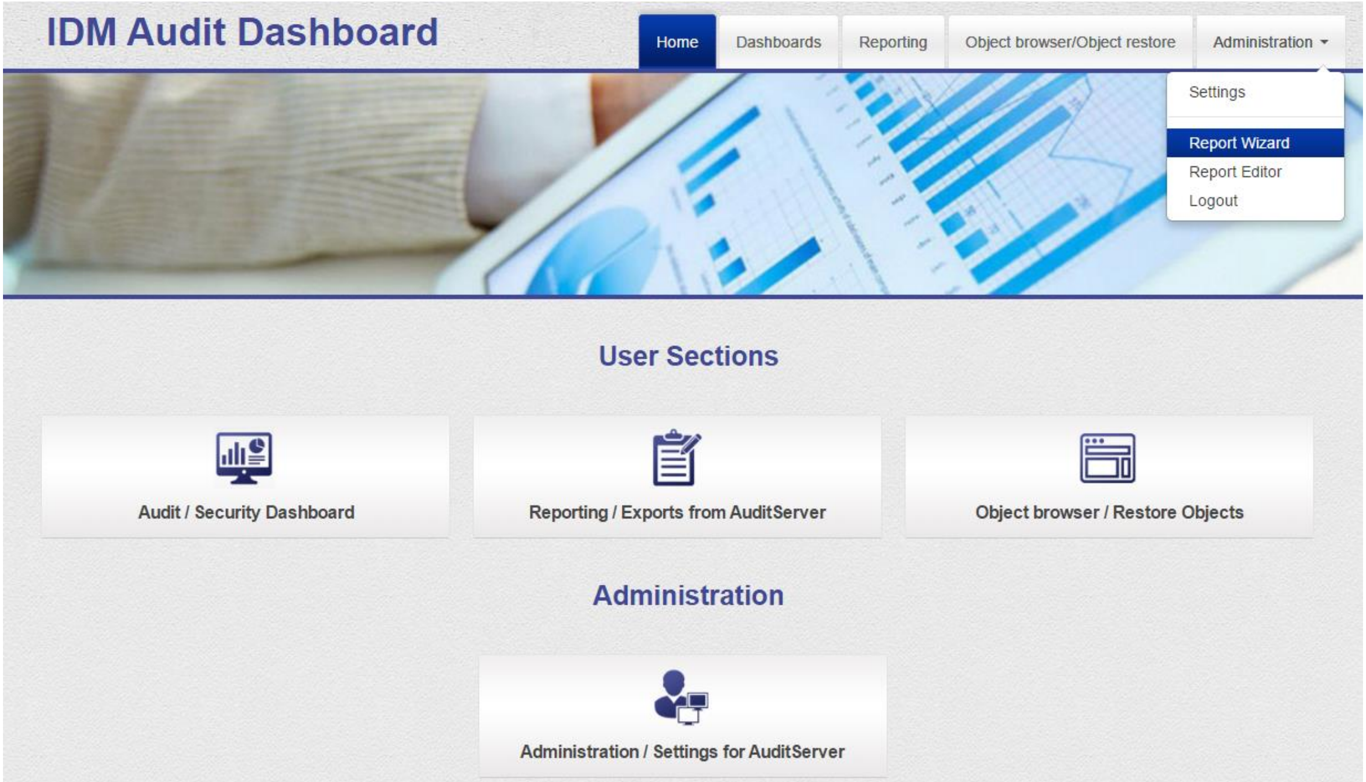
Some basic theory

First some short theory about how the report engine of our Audit Compliance Dashboard works. The basis of the report engine are two services, that gather all the data from eDirectory. First there is the audit driver that listens to all events on objects and attributes, that should be monitored. By default, it records all events on users, organizational person, groups, organizational units, roles, resources, locality and devices into an Elasticsearch engine which is based on a Lucene indexing and search library. The filter of the driver can be extended on the fly to monitor more objects or attributes. Since Elasticsearch is based on schema-free JSON documents there are no modification required on the Lucene library.

Second the IDM Audit & Compliance Dashboard comes with a service that is able to take snapshots of your eDirectory on a regularly base. You decide by yourself whether you want to take these snapshots every hour, daily, weekly or monthly. These snapshots are also stored in the Lucene library. Again, because Lucene is based on schema-free JSON documents, it doesn't matter which complex eDirectory schema extensions your tree may have, all directory data will be saved completely.

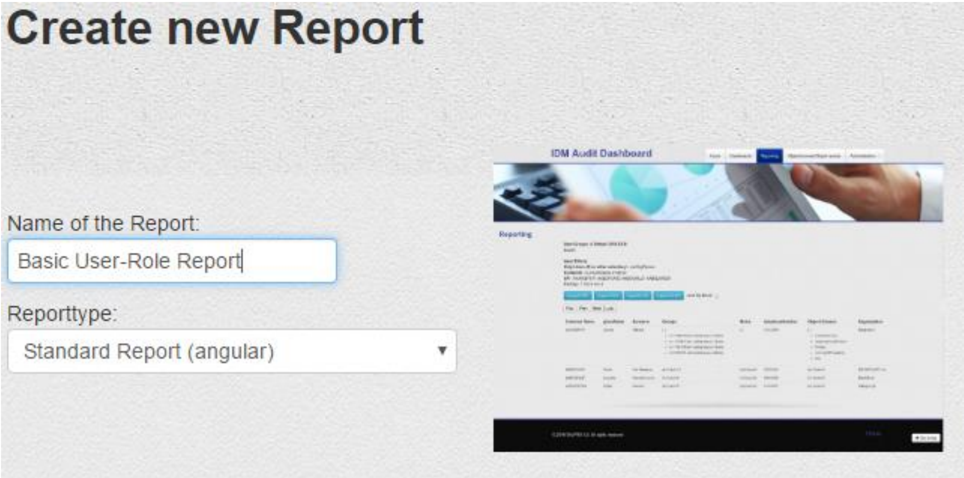
The report wizard

Now let's start with our reporting module. Of course, we also deliver some default reports like user reports, group reports and role reports but the strength of the reporting module is our integrated report wizard and editor. The report wizard allows you to build your very own customized reports in four easy steps. We click the "Administration" tab and select "Report Wizard".



Step 1: name the report and choose the template

Name the report and choose, whether you want to create an audit report or a standard object report. An audit report generates a report about all the modifications that have been monitored by the audit driver during a specific. The standard object report allows you to build reports on any object class that has been snapshotted.



graphic 1: Create a new Report form

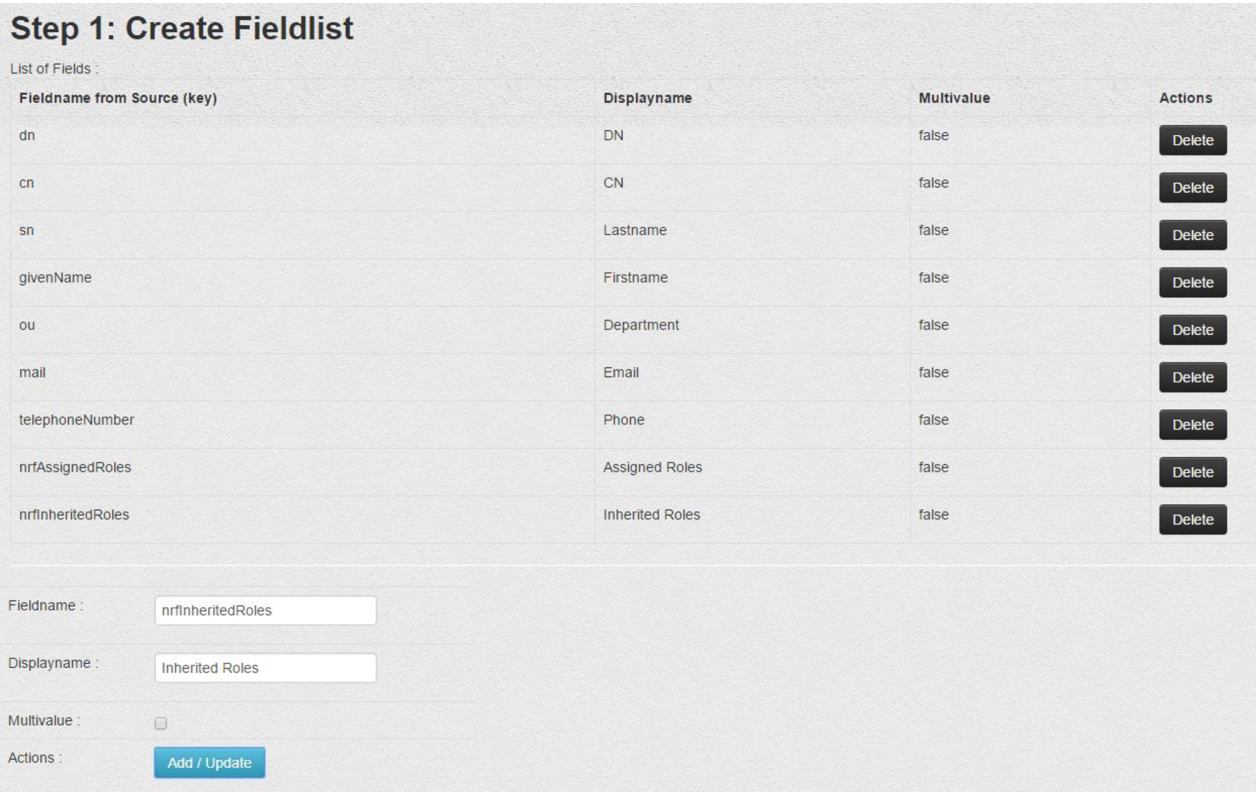
Let’s create a basic user-role report, that shows all directly assigned and inherited roles a user has had at a specific date. We name it “basic user-report” and select “standard report (angular)” from the drop-down box.

Step 2: Define the fields you want to see on the report

Now you can define all attributes you want to place on your report. You can search by LDAP attribute names and label them on your report as you like. We add the following attributes to our report:

LDAP attribute	Displayname
sn	Lastname
givenName	Firstname
ou	Departmet
mail	Email
telephoneNumber	Phone
nrfAssignedRoles	Assigned Roles
nrfInheritedRoles	Inherited Role

After you’re done please compare your screen with the print screen below before you press the „Next“ button.



graphic 2: define the fieldlist

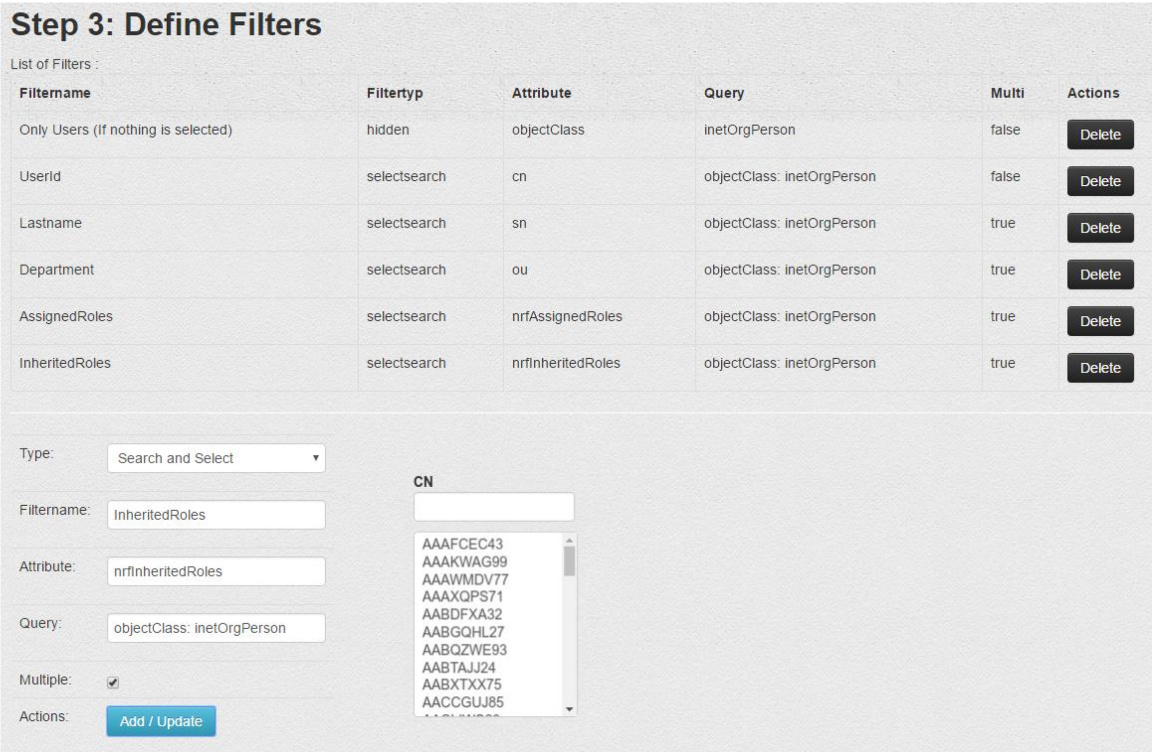
Step 3: Define the filter you want to apply on your data

In this step we define the filters you want to apply to select specific user objects. First let’s look at the various filter type we have.

Filter type	Description
Standard	A box will appear with all values that have been found in this specific attribute. Select all attribute values for which you want to apply the filter.
Search and Select	A search box will appear above all values that have been found in this specific attribute. You can either select the values or search for the values for which you want to apply the filter.

Search	Specific a specific search string for which you want to apply the filter.
Static / Hidden	Same as "Search" but the filter will not appear when you start the report.

To make complicated things easy we just define a "Search and Select" filter for the cn, lastname, department, assigned roles and inherited roles. First delete the filter on attribute DN. Now select filtertype "Search and Select", enter filtername (e.g. UserID) and attribute (e.g. CN and press "Add/Update" for every filter. Enable the "Multiple" checkbox for the filter on lastname, Department, AssignedRoles and Inherited Roles. Compare your screen with graphic below.



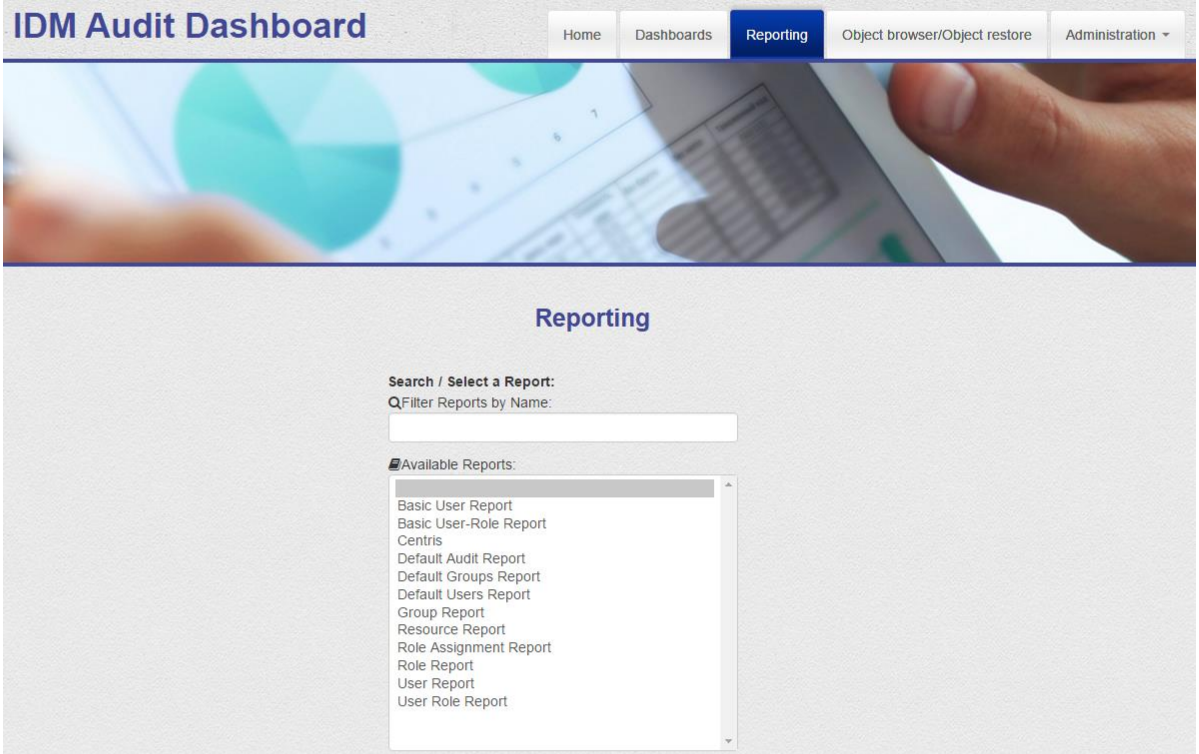
graphic 3: define the report filters

Step 4: Save the report

Press „save" and you're done with the report. Congratulations.

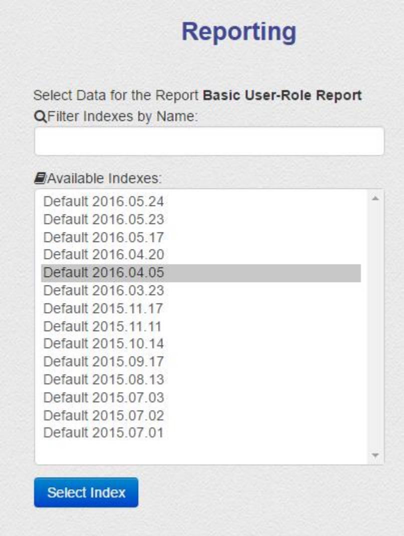
Start the report

Now it's time to start the report and have a look what we have built we the report wizard. Click on the „Reporting" tab and you'll see our just created report beside all the default reports.



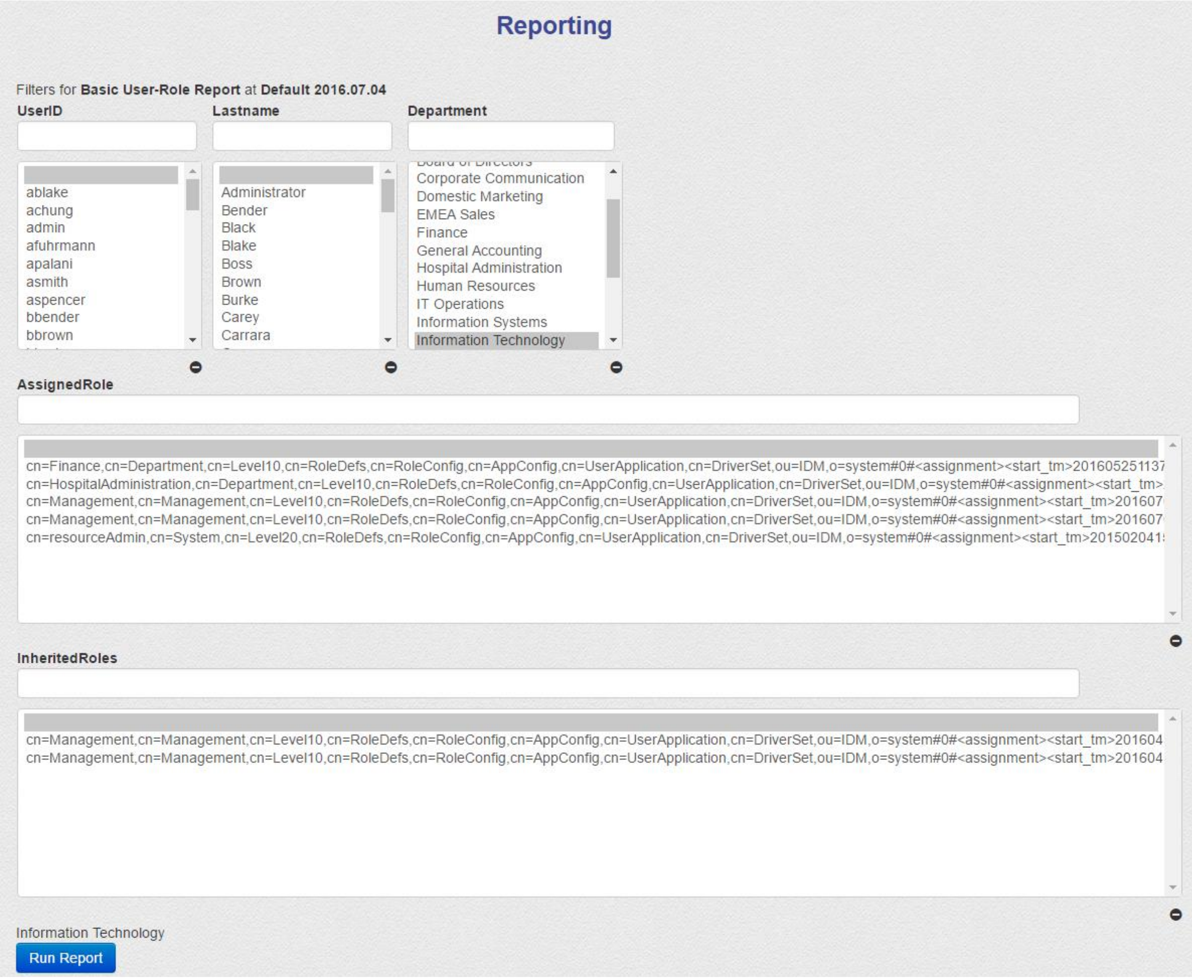
graphic 4: Select the report we have created

Select the "Basic User-Role Report" we have created. The next windows you see is the selection of all the eDirectory snapshots we have. Depending on the schedule you have defined you may have an hourly, daily or weekly snapshot you can select the data from.



graphic 5: Select the snapshot we take the data from

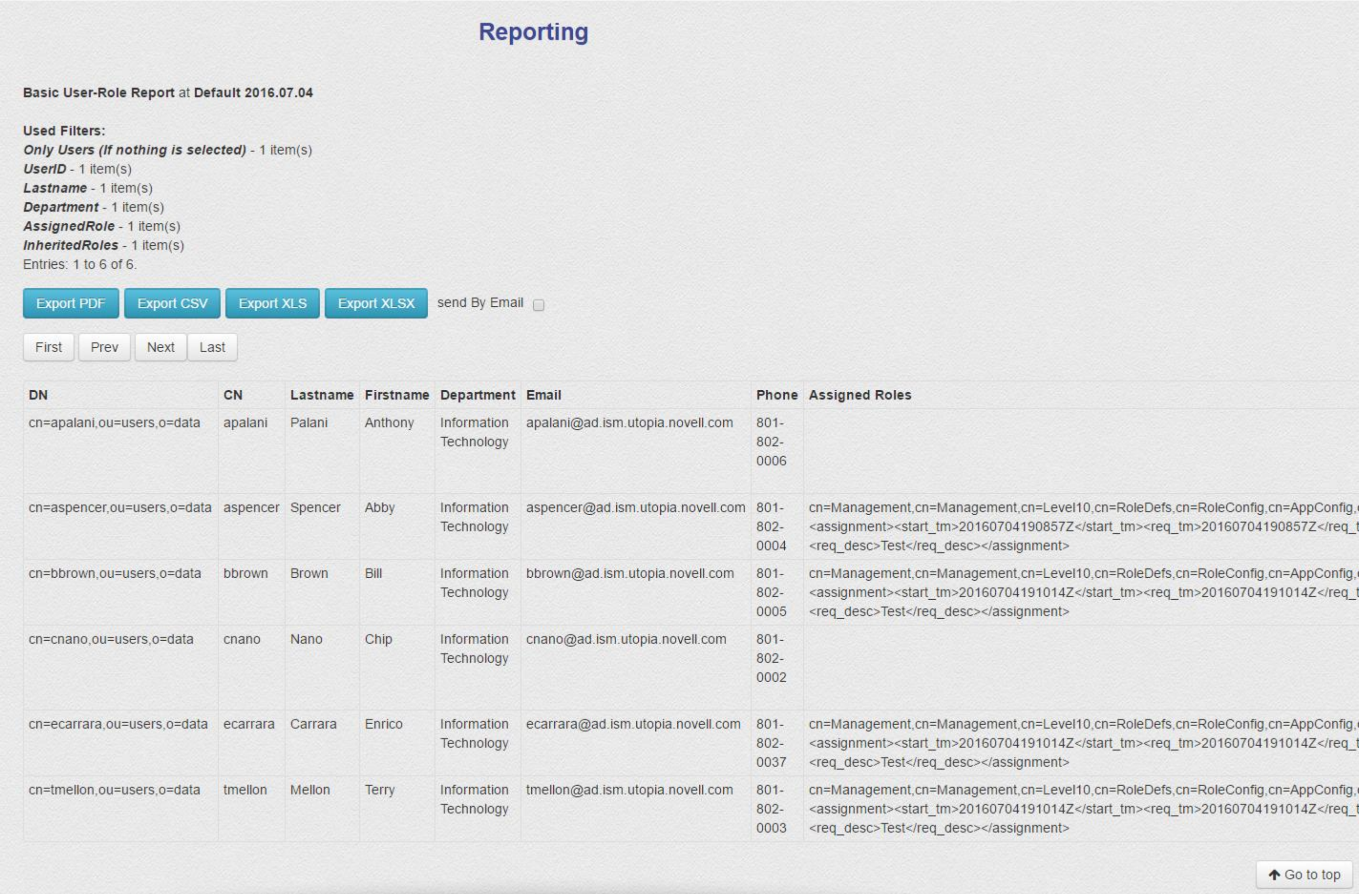
Now all the defined filters will appear. With the help of these filters we can query the data to reduce the amount of data on the report and to narrow the report to what we really want to see. According to our filter definitions we can query on CN, lastname, department, email, assigned and inherited roles. Again, we keep it simple and just select department "Information Technology".



graphic 6: Filter set on "Information Technology"

Based on this filter we'll receive all users who work in this department. As we have defined in our report definition we see the attributes DN, CN, Lastname, Firstname, Department, Email, Phone, assigned and inherited Roles. To make the report compliant you see the source of the data in the header as well as all the selection criteria.

If you like to do further investigations on this data, you can even export it as CSV or XLSX file. In case you want to send the report to somebody just export the report as a PDF file. Sometimes those reports get very bulky and it will take quit a time to generate and export the reports. If this is the case, you can instruct the report engine to send the report by email as soon as it is ready.


Reporting

Basic User-Role Report at **Default 2016.07.04**

Used Filters:
Only Users (If nothing is selected) - 1 item(s)
UserID - 1 item(s)
Lastname - 1 item(s)
Department - 1 item(s)
AssignedRole - 1 item(s)
InheritedRoles - 1 item(s)
Entries: 1 to 6 of 6.

Export PDF Export CSV Export XLS Export XLSX send By Email

First Prev Next Last

DN	CN	Lastname	Firstname	Department	Email	Phone	Assigned Roles
cn=apalani,ou=users,o=data	apalani	Palani	Anthony	Information Technology	apalani@ad.ism.utopia.novell.com	801-802-0006	
cn=aspencer,ou=users,o=data	aspencer	Spencer	Abby	Information Technology	aspencer@ad.ism.utopia.novell.com	801-802-0004	cn=Management,cn=Management,cn=Level10,cn=RoleDefs,cn=RoleConfig,cn=AppConfig, <assignment><start_tm>20160704190857Z</start_tm><req_tm>20160704190857Z</req_t <req_desc>Test</req_desc></assignment>
cn=bbrown,ou=users,o=data	bbrown	Brown	Bill	Information Technology	bbrown@ad.ism.utopia.novell.com	801-802-0005	cn=Management,cn=Management,cn=Level10,cn=RoleDefs,cn=RoleConfig,cn=AppConfig, <assignment><start_tm>20160704191014Z</start_tm><req_tm>20160704191014Z</req_t <req_desc>Test</req_desc></assignment>
cn=cnano,ou=users,o=data	cnano	Nano	Chip	Information Technology	cnano@ad.ism.utopia.novell.com	801-802-0002	
cn=ecarrara,ou=users,o=data	ecarrara	Carrara	Enrico	Information Technology	ecarrara@ad.ism.utopia.novell.com	801-802-0037	cn=Management,cn=Management,cn=Level10,cn=RoleDefs,cn=RoleConfig,cn=AppConfig, <assignment><start_tm>20160704191014Z</start_tm><req_tm>20160704191014Z</req_t <req_desc>Test</req_desc></assignment>
cn=tmellon,ou=users,o=data	tmellon	Mellon	Terry	Information Technology	tmellon@ad.ism.utopia.novell.com	801-802-0003	cn=Management,cn=Management,cn=Level10,cn=RoleDefs,cn=RoleConfig,cn=AppConfig, <assignment><start_tm>20160704191014Z</start_tm><req_tm>20160704191014Z</req_t <req_desc>Test</req_desc></assignment>

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graphic 7: Our "Basic User-Role" report

Edit the report

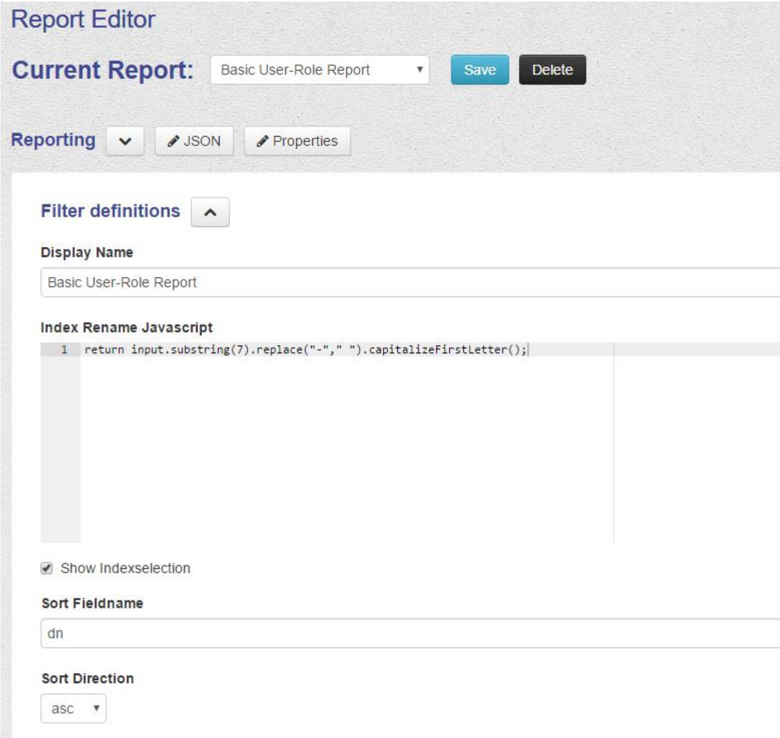
Of course, you can edit the report you've created with the report wizard at any time and modify everything we have defined so far. You can even add much more functionality to the report and customize the look and feel completely. It would go far beyond the scope of this article to explain all the possibilities you have to modify an existing report, but a short summary will give you an impression about the flexibility of our report editor.

graphic 8: Report Editor

To edit our report, select the "Administration" tab and click "Report Editor". In the dropdown box look for the "Basic User-Role Report". Here the world is open to modify your report to all your specific requirements. For now I'll give you a short summary about the different settings.

Generel setting

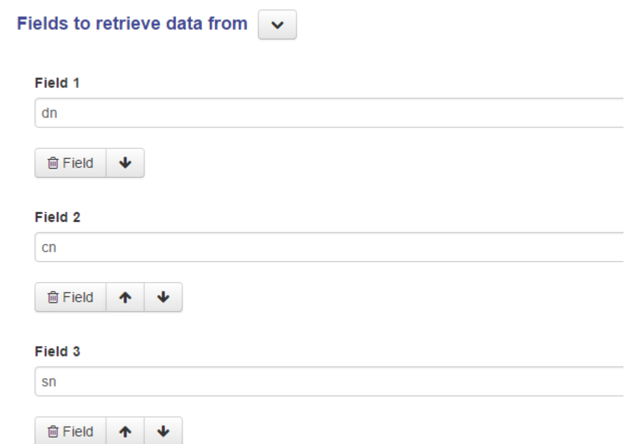
In the general settings we define the name of the report, how many lines should be displayed on the screen per page, how the names of the snapshot files should appear, the general sorting field and sort direction.



graphic 9: Generell report settings

Data fields

In this section you can change the data fields and the sequence of the data fields, that should be retrieved and displayed.



graphic 10: add, move and delete data fields

Field Aliases

You may want to change the cryptic LDAP field names to human readable field labels to be shown as column headers.

Filter definition

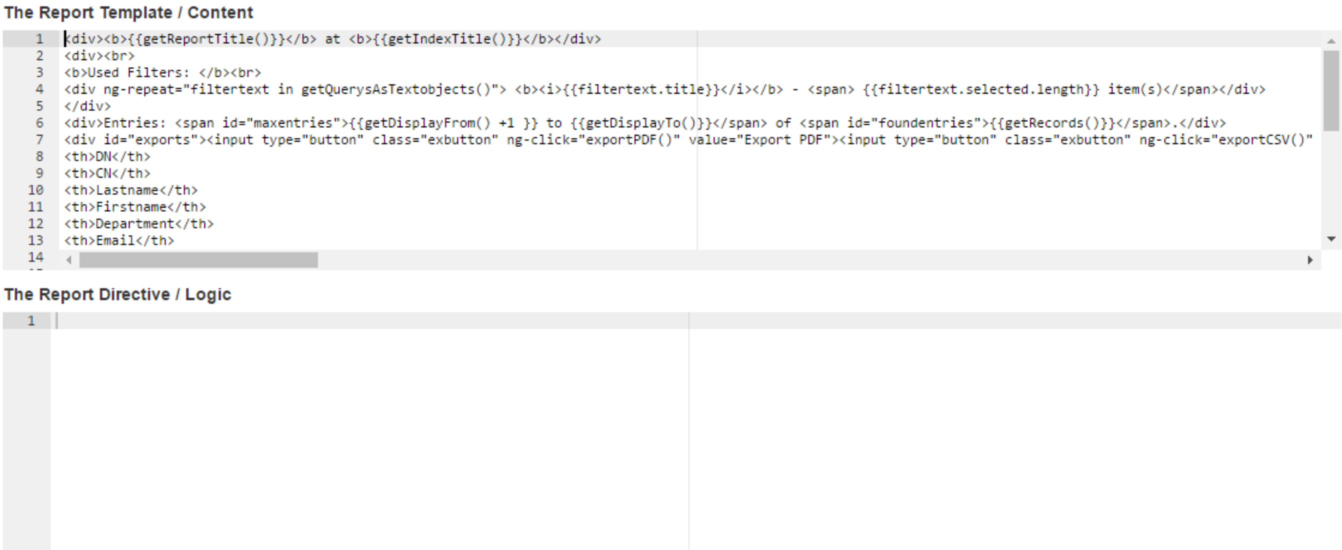
This is one of the most powerful features. In this section you can add, modify or delete your filter definitions. This way you can reduce the amount of data to retrieve and narrow the search results precisely to the data you’re looking for.

Make unique values:

Make unique keys: for lookups to other objects and attributes

Report template, content

This is the section for power users. Here you have the HTML source, that is used to generate the report. Whatever you like to modify on the look & feel of your report, this is the place to do it.



graphic 11: Customize the look & feel of your report

Report directives and logic

If you have special dynamic content you may want to add to your report or even add some charts or other graphics to your report, here is the place to do this.

Prepare dynamic data to display in your report.

List definition

Do you need any specific lists or tables to look up for your report, that are not in the lucene index, you can add these lists here and show meaningful text instead of some cryptic code.

Predefined queries

In case you want to build a report without filters, that allow users to do some selections on the data, you can specify predefined filters, that are applied to the data. The report will be built directly without further user intervention.

Filter template definitions

For every predefined filter type exists a template how to display and handle this specific filter. If you want to change the look & feel of predefined filter types or even want to add your own filter types, you can do this here.