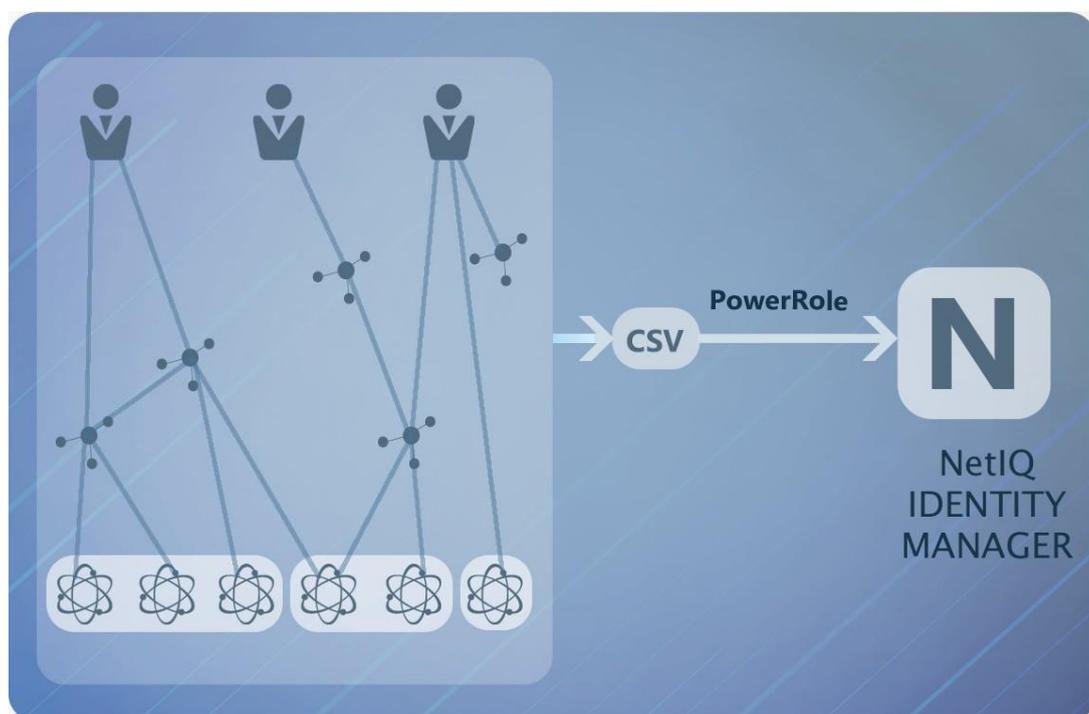


PowerRole v2.1



Installation and Configuration Guide

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1 About this document

This installation and configuration guide explains how to install and configure the PowerRole drivers version 2.1 for the NetIQ Identity Manager. This guide contains the following chapters:

1. Part 1: Overview
2. Part 2: Installation
3. Part 3: Driver Configuration
4. Part 4: Driver Testing

Audience

This guide is intended for administrators and developers integrating the PowerRole drivers in an existing NetIQ Identity Manager environment. You should have an understanding of CSV file format, the Role based Provisioning Modul and basic driver import functionalities.

Feedback

We appreciate your comments and suggestions about the PowerRole drivers and this manual. If you have any suggestions, comments, feature requests please contact us via info@skypro.ch.

2 Overview

Building a role model is a burdensome task and can take a lot of time. Finally, after you have defined your enterprise wide roles it comes to the moment you have to load your roles into your Identity Manager. Without the right tools in place, again it will be a time-consuming job to create hundreds or even thousands of roles within Identity Manager. But you're not done yet. For the final step to put your roles in to production, you have to assign roles to your employees, customers, and partners. In the initial phase, we're not talking about 10 or 100 role assignments. We're probably talking about thousands of role assignments.

At this point PowerRole comes to help you. PowerRole offers two drivers, that can help you to dramatically reduce the time to create your roles and to do the initial role assignments. Both drivers read their information from CSV text files and directly apply this information in your Identity Manager system.

PowerRole: Role Import driver

The PowerRole role import driver creates resources and roles directly in your Identity Manager. You do not have to import the roles first into designer and to deploy them afterwards from designer in to your live system.

The PowerRole Import driver is able to:

- create new resources
- create new Permission--, IT-- and Business--Roles
- assign entitlements to resources and roles
- assign resources to roles and roles to roles
- supports localizations for resources and roles
- define target containers
- assign resource and role categories
- assign approval workflow and approver to roles and resources
- set resource and role owners and trustees

PowerRole: Role Assignment driver

The PowerRole role assignment driver allows you to assign resources and roles to users. The driver is capable to:

- assign and revoke multiple roles and resources to users
- define a valid from and valid to date
- run or skip the approval process for role and resource assignments

3 Installation

3.1 Requirements

PowerRole has the following requirements:

- NetIQ Identity Manager Advanced Edition 3.0 or higher
- installed and running RBPM module
- installed designer with connection to live system

3.2 Preliminary

Before you start with your installation make sure you have the following information ready:

- URL of your User Application Server (e.g. myUserApp.myCompany.com:8080/IDM)
- userID of your User Application Administrator
- password of your User Application Administrator
- write access to the server directory where the IDM driver libraries resides

3.3 Installation

The installation of the PowerRole driver package is easy and straightforward. After you have download the package from our web site www.skypro.ch unzip it. The packages contain the following files:

- PowerRoleTools.jar
- RoleAssignmentTools.jar
- sp--pr--base_x.y.z.jar (value of xyz depends on version)
- sp--ra--base_x.y.z.jar (value of xyz depends on version)
- RoleImport.csv
- RoleAssignment.csv
- PowerRoleDesignerPlugIn.zip
- PowerRole Installation & Configuration Guide

3.3.1 Server Site Installation

Two PowerRole JAR files should be copied on to the Identity Manager Server where your IDM Engine is running:

- PowerRoleTools.jar
- RoleAssignmentTools.jar

You should copy these JAR files to all IDM servers where you plan to run the PowerRole drivers.

Please check with your IDM Administrator in which directory your IDM engine was installed. The default installation path for IDM engines are:

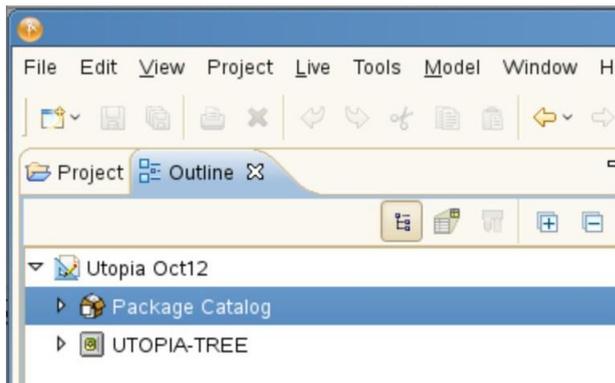
- Windows Servers C:\Novell\NDS\
- Linux Server: opt/novell/eDirectory/lib/dirxml/classes

To make sure you copy the files in to the right directory you can check for specific IDM engine jar files e.g. "CommonDriverShim.jar".

3.3.2 Client Site Installation (Designer)

Import Driver Libraries

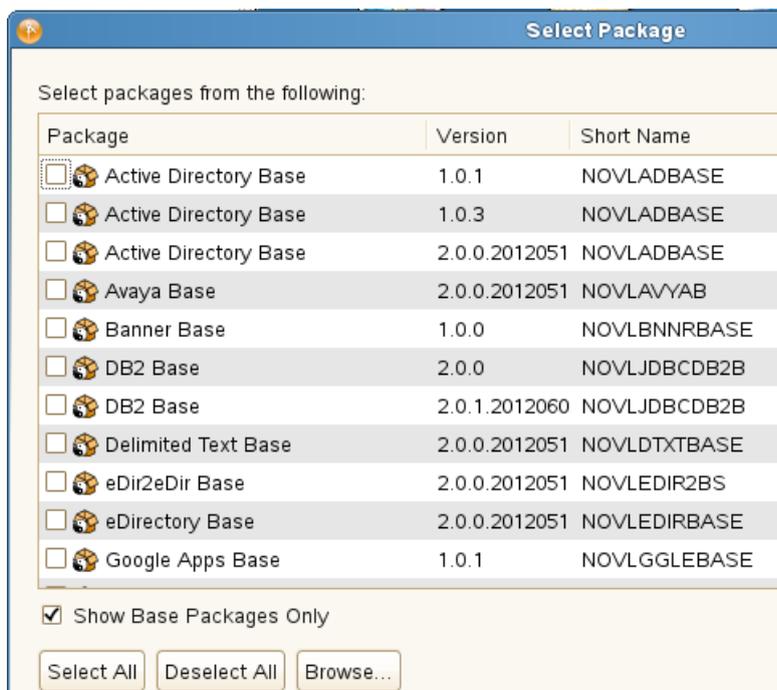
PowerRole drivers are created in designer. Start designer and open your project in designer where you want to create the PowerRole drivers. Switch to the project outline view.



Picture 1: Designer Package Catalog

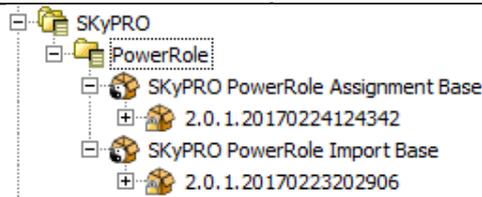
Right click on the "Package Catalog" and select "Import Package...". In the Package Selector choose the "Browse" button, navigate to the PowerRole directory where you have unpacked the PowerRole tool and select one of the PowerRole driver packages:

- sp-pr-base-x.y.z.jar: PowerRole Import Driver Package
- sp-ra-base-x.y.z.jar: PowerRole Assignment Driver Package



Picture 2: Select packages to import into Designer

Confirm your selection and the package will be imported in your designer package catalog.

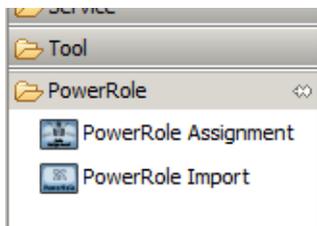


Picture 3: SkyPRO PowerRole packages

Add PowerRole to Designer palette (optional)

You can add the PowerRole drivers in your Designer palette. It can be done in 2 ways: manually or using an installation script.

After all operations please close your designer and restart it. Now you should see a new palette "PowerRole" with two drivers "PowerRole Assignment" and "PowerRole Import", which you can drag & drop into your system model.



Picture 4: PowerRole palette in Designer

Remarks: <designer_installation_folder> - the folder where your IDM Designer installed.

Manual way:

1. Extract the archive "PowerRoleDesignerPlugIn.zip" in some folder and open it.
2. In the folder "<designer_installation_folder>\plugins" find the folders that have names same to "com.novell.idm_4.0.0.x" (for example "com.novell.idm_4.0.0.201206110753"). Usually you will find just one folder, but some Designer builds have 2 or more such folders.
3. (Do for every folder found in paragraph 2) Copy contents of directory "Applications" into "<designer_installation_folder>\plugins\com.novell.idm_4.0.0.x\defs\model_items\Applications"
4. (Do for every folder found in paragraph 2) Copy contents of directory "Drivers" into "<designer_installation_folder>\plugins\com.novell.idm_4.0.0.x\defs\model_items\Drivers"
5. (Do for every folder found in paragraph 2) Make corrections in file "<designer_installation_folder>\plugins\com.novell.idm_4.0.0.x\defs\model_items\Palettes\Main.xml". Add line into tag <palette>:

```
<group id="PowerRole">%PowerRole</group>
```
6. (Do for every folder found in paragraph 2) Make corrections in file "<designer_installation_folder>\plugins\com.novell.idm_4.0.0.x\defs\model_items\Palettes\props\Main.properties". Add line:

```
PowerRole = PowerRole
```

Using an installation script (required java 1.5, installed with IDM Designer):

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Extract the archive "PowerRoleDesignerPlugIn.zip" in some folder and open it with operation system console.

Start Install.jar with the console: `java -jar Install.jar <designer_installation_folder>`

Example for Windows: `java -jar Install.jar "c:\Program Files\Novell\Designer"`

Example for Linux: `java -jar Install.jar /root/designer`

If you don't have java installed in your operation system, you can use java from the Designer installation folder:

`<designer_installation_folder>\jre\bin\java -jar Install.jar <designer_installation_folder>`

4 Driver Configuration

The PowerRole tool contains two designer packages to create Identity Manager drivers:

- SKYPRO PowerRole Import Base (sp-pr-base) – to import resources and roles
- SKYPRO PowerRole Assignment Base (sp-ra-base) – to assign resources and roles to user

Both packages are based on the standard loopback driver technology, which is part of the IDM engine.

4.1 PowerRole Import Driver

4.1.1 Create a new Role Import driver

To create a new Role Import driver, you first should import the appropriate driver package in to your designer environment (see chapter 3.3.2 Client Site Installation (Designer)).

You can create a role import driver by right mouse clicking on the Driver Set, select "New" -> "Driver...", choose "SKYPRO PowerRole Import Base" in package list and press "Next".

Or you can use a PowerRole group on Designer palette (if configured). From your driver palette select the PowerRole folder and drag & drop the "PowerRole Import" icon into your system model. As you drop the icon in your system model the driver configuration wizard appears. From the package browser select the recently added SKYPRO PowerRole Import Base package and press "Next".

Name the new driver and press "Next".

Next step is to configure the driver with the necessary parameters. These parameters are:

Section "Common":

1. License Key

Please enter your license key for role import drivers. Without a valid license key the driver will only process 50 lines of the import file and won't rename the file after import.

2. Recreate existing roles from scratch?

If "Yes" existing roles will be completely overwritten with the content in the text file. If "No" existing roles will be merged with the content of the text file. Only new definitions will only be added, nothing is deleted!

Section „Containers“:

1. Role Definition Root DN

Please select the "RoleDefs" container within your user application driver container where your role definitions reside. Default is "..\AppConfig\RoleConfig\RoleDefs".

2. Request Definitions Root DN

Please select the "RequestDefs" container within your user application driver container where your request definitions (workflows) reside. Default is "..\AppConfig\RequestDefs".

3. Role Approval DN

Please select your standard role approval workflow object (by default the object "Role Approval" within container "RequestDefs") within your user application driver container. Default is "..\AppConfig\RequestDefs\Role Approval".

4. Resource Associations DN

Please select the "ResourceAssociation" container within your user application driver container where your resource to role association objects reside. Default is "..\AppConfig\RoleConfig\ResourceAssociations".

5. Resource Definitions DN

Please select the "ResourceDefs" container within your user application driver container where your resource objects reside. Default is "..\AppConfig\RoleConfig\ResourceDefs".

Section „Import file“:

1. Import file folder

define the folder on your IDM server where you place your import files to be processed.

2. Import file extension

state the file extension that should be processed by the import driver (default "csv")

3. OS file system delimiter

state the delimiter the files system on your IDM server uses to separate files and folders ("/" for linux, "\" for windows)

4. Is first line a header

If first line is a row header please mark with "yes" so this line will be ignored.

Section „Import file delimiters“:

1. Between attributes (delimiter 1)

Specify the character you use as a delimiter between attributes. By default ";" is used

2. Between multiple values (delimiter 2)

Specify the character you use as a delimiter between values in multi valued attributes. By default "|" is used. e.g. between localization strings:
"en~english|ge~german|fr~french".

ATTENTION: On Unix system this character can also appears as "|"

3. Between subvalues within values (delimiter 3)

Specify the character you use as a delimiter between parameter and value. By default "~" is used. e.g. as localization parameter:

"en~english|ge~german|fr~french".

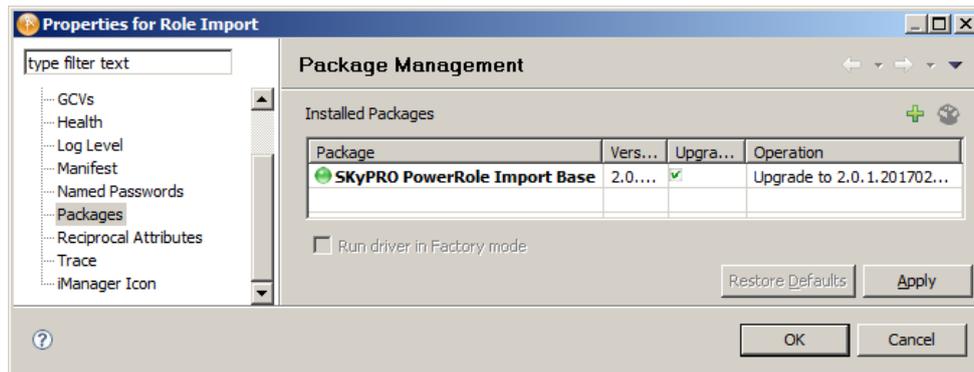
Select "Next" and "Finish" to finalize the driver configuration wizard.

Save the driver and deploy it to your live system. Place a valid role import file (see chapter 4.1.1 Role & Resource import file definition) in to the specified file folder on your server and start the driver. By default the publisher polling interval is set to 1 minute. So you may have to wait up to 1 minute before your files will be processed.

4.1.2 Upgrade Role Import driver

To upgrade a Role Import driver, you first should import the appropriate driver package in to your Designer environment (see chapter 3.3.2 Client Site Installation (Designer)).

Then you should open your Role Import Driver's properties (right mouse click on the driver -> Properties), open the tab "Packages" and select "Upgrade" in the "Operation" column for the "SKYPRO PowerRole Import Base" package. And then press OK.



4.1.3 Role & Resource import file definition

When you create your spreadsheet to use as input to the role import driver, keep in mind that the driver expects a specific format. It expects a twelve-column document with the columns defined in the order described in Table 1: role import file format. The driver also expects the input file to follow the CSV format rules defined in RFC4180. This format is briefly summarized below:

- Each role or resource record is on a separate line.
- Each field in a role record is separated by a delimiter ("," or ";") and can be quoted
- Each line is delimited by a line break (CRLF) consisting of a carriage return (CR) and a line feed (LF)
- The first line of the file can be a header line, but this is optional. The driver allows you to identify whether the file contains a header line.
- If your file contains a header line, it contains the role record's field names. The header line field count must correspond to the field count of each line in the file.
- Quotes on numbers are not required.
- Quotes and nested quotes:
- You can use single quotes within a text field (such as Display name). Use double quotes to enclose the attribute delimiter.
- NOTE:
- For optional fields, the line must include an empty string "" as a placeholder.

A role import line example:

```
20,"OTB. System","doctor","en~Doctor|it~Dottore|fr~Docteur","en~Doctor
|it~Dottore|fr~Docteur","doctors","admin.novell","ablake.users.novell
","","Groups.GroupEntitlementLoopback.TestDrivers.novell~MedicalOpera
```

tions|Groups.GroupEntitlementLoopback.TestDrivers.novell~Pharmacy", "Role Approval", "ablake.users.data"

Col. No	Field Name	Description
1	role level	<p>Required field. Use 0 for resource, valid role levels are: 10, 20, and 30.</p> <p>0: Resource 10: Permission Role 20: IT Role 30: Business Role</p> <p>If an invalid role level is specified, the driver states the role record to an error. It does not create the role.</p> <p>For example: 30</p>
2	sub-container	<p>Optional field. The name of the subcontainer relative to the role level. The driver does not create any subcontainers that does not exist. There is no limit on the number of subcontainers, but five levels depth is the recommended maximum depth. Should be written in "dotted" DN format.</p> <p>For example: "OTB.System"</p>
3	id	<p>Required field. The role's identifier (CN). This name must be unique within the specified subcontainer. If the CSV file contains multiple rows with the driver imports and creates an object for the first one it encounters. Any subsequent role definition will either recreate or merge the existing role depending the configuration of the driver.</p> <p>For example: "Doctor"</p>
4	localized display names	<p>Optional field. The translated string used to display the role name. Accepts zero or more values. The value must be in this format:</p> <p>"java-locale-code~string"</p> <p>The ~ delimits the locale and its localized string. The symbol delimits each set of locale data.</p> <p>For example: "en~Doctor it~Dottore fr~Docteur"</p>
5	localized descriptions	<p>Optional field. The translated string used to display the role description. Accepts a list of zero or more values. The value must be in this format:</p> <p>"java-locale-code~string"</p> <p>The ~ delimits the locale and its localized string. The symbol delimits each set of locale data.</p> <p>For example: "en~Doctor it~Dottore fr~Docteur"</p>

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<p>6</p>	<p>categories</p>	<p>This value should map to a valid resource or role category key based on the Role Category list defined in the directory abstraction layer. Accepts a list of zero or more values delimited by delimiter 2 (default " ").</p> <p>If you do not specify a value, the driver inserts the role category key "default".</p> <p>If the value is invalid (it does not exist in the directory abstraction layer), the wizard still includes it in the newly created role;; however, Designer's validation requires that this be fixed before the role can be deployed after import.</p> <p>For example: "doctors nurse"</p>
<p>7</p>	<p>owners</p>	<p>Optional field. Represents the distinguished name of the owner of the role. Accepts a list of zero or more values delimited by delimiter 2 (default " ").</p> <p>For example: "admin.novell ablake.users.data"</p>
<p>8</p>	<p>trustees</p>	<p>Optional field. Represents the distinguished name of the trustees of the role. Accepts a list of zero or more values delimited by delimiter 2 (default " ").</p> <p>For example: "ablake.users.data"</p>
<p>9</p>	<p>contained roles</p>	<p>Optional field. The role level and CN or DN of the child or contained roles. DN can be full or can be relative to specified level or RoleDefs container. Accepts zero or more values delimited by delimiter 2 (default " ").</p> <p>The value must be in this format: "number~DN(dotted format)".</p> <p>For example: "10~Administer Drugs 10~Fill Prescriptions"</p> <p>For example: "10~Administer Drugs.OTB.System"</p>
<p>10</p>	<p>resource/ entitlements</p>	<p>Optional field. Either a DN of a valid resource (full or relative to ResourceDefs container) or a DN with parameter values to a valid driver entitlement. Accepts multiple resources or multiple entitlements. Resources and entitlements mustn't be mixed. Either the field contains resource(s) or entitlement(s). Multiple values delimited by delimiter 2 (default " "). Supports assignment of entitlements with dynamic values (only for Resources).</p> <p>Entitlement value must be in this format:</p> <p>"EntitlementDN(string)~EntitlementValue(string)~IsDynamic(true/false)"</p> <p>e.g. resource:</p> <p>AD Account Exchange Account Laptop</p> <p>e.g. entitlement:</p> <p>"Groups.GroupEntitlementLoopback.TestDriver.novell~Medical Operations Groups.GroupEntitlementLoopback.TestDriver.novell~Pharmacy"</p> <p>e.g. entitlement for Resource:</p> <p>"Groups.GroupEntitlementLoopback.TestDriver.novell~Medical Operations Groups.GroupEntitlementLoopback.TestDriver.novell~~true"</p>

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<p>11</p>	<p>approval workflow</p>	<p>Optional field. Specifies the name of the provisioning request common name. Single valued field.</p> <p>None: Provide the empty string "".</p> <p>Standard: Supply key word Standard followed by the quorum value. For example: "Role Approval"</p> <p>Custom: Enter the provisioning request definition CN. example: "MyCustomPrdCN"</p>
<p>12</p>	<p>approvers</p>	<p>Optional field. Represents the distinguished name (DN) of the approvers when the approval workflow value is <i>Standard</i>. The order of the approvers in this field is important for serial approvals. Accepts zero or more values.</p> <p>Multiple values delimited by delimiter 2 (default " ")</p> <p>For example: "admin.novell ablake.users.data"</p> <p>If the approval workflow is not standard and you specify a list of approvers, the driver states the record as error.</p>

Table 1: role import file format

4.2 PowerRole Assignment driver

4.2.1 Create a new Role Assignment driver

To create a new role assignment driver you first should import the appropriate driver package in to your designer environment (see chapter 3.3.2 Client Site Installation (Designer)).

You can create a role assignment driver by right mouse clicking on the Driver Set, select "New" -> "Driver...", choose "SKyPRO PowerRole Assignment Base" in package list and press "Next".

Or you can use a PowerRole group on Designer palette (if configured). From your driver palette select the PowerRole folder and drag & drop the "PowerRole Assignment" icon into your system model. As you drop the icon in your system model the driver configuration wizard appears. From the package browser select the recently added SKyPRO PowerRole Assignment Base package and press "Next".

Name the new driver and press "Next".

Next step is to configure the driver with the necessary parameters. These parameters are:

Section "Drive Parameter"

1. Publisher Options

Select "show" or "hide" to show the publisher options. Select show to show the publisher options

2. Publisher Heartbeat interval

If you select "show" in the publisher options you can define the heartbeat interval of the publisher channel. The heartbeat interval is set in minutes. It defines the interval the driver searches for an import file.

Section "Global Configuration Values":

1. Configuration Values

Select „show“ to show the configuration values.

Section "License":

1. License Key

Please enter your license key for role assignment drivers. Without a valid license key the driver will only process 50 lines of the import file and won't rename the file after import.

Section "Containers":

1. Role Definition Root DN

Please select the "RoleDef" container within your user application driver container where your role definitions reside. Default is "..\AppConfig\RoleConfig\RoleDefs".

2. Resource Definitions Root DN

Please select the "ResourceDefs" container within your user application driver container where your resource objects reside. Default is ".. \AppConfig\RoleConfig\ResourceDefs".

3. User container

Please select the container where your users reside you want to assign roles to.

Section „Import File“:

1. Import files folder

define the folder on your IDM server where you place your import files to be processed.

2. Import file extension

state the file extension that should be processed by the import driver (default "csv")

3. OS file system delimiter

state the delimiter the files system uses to separate files and folders (by default "/" for linux, "\" for windows)

4. Is first line a header

Select "yes" if the first line in your import file is a header line with column definitions and the line should be ignored for import.

Section "Import file delimiters":

1. Between attributes (delimiter 1)

Specify the character you use as a delimiter between attributes. By default ";" is used

2. Between multiple values (delimiter 2)

Specify the character you use as a delimiter between values in multi valued attributes. By default "|" is used. e.g. between localization strings:
"en~english|ge~german|fr~french".

ATTENTION: On Unix system this character can also appears as "|"

3. Between subvalues within values (delimiter 3)

Specify the character you use as a delimiter between parameter and value. By default "~" is used. e.g. as localization parameter:

"en~english|ge~german|fr~french".

Section "Role Assignment":

1. Role assignment description

Enter the description (reason) for the role assignment, as it should appear in the user portal.

2. Create role assignment with or without approval workflow

Select "with" if you want to process the approval workflow as it is defined on the role that will be assigned to the user. Select "no" if you do not want to process any approval workflow that is defined on a role. According to what you will choose, you will see different options below.

3. Action name prefix

For each role assignment a resource request object will be created in the directory. To better find resource request objects that have been created by the role assignment driver, you can define a prefix for the CN of the resource request objects.

4. Role Request Container

Please select your role request container within your user application driver container, where role request objects are placed. Default it is “..\AppConfig\RoleConfig\Requests”.

5. Resource Request Container

Please select your resource request container within your user application driver container, where resource request objects are placed. Default is “..\AppConfig\RoleConfig\ResourceRequests”.

6. User App URL

Please enter the URL of your User Application Portal. Default is http://<your server>:8180/IDMProv.

7. User App Role Admin

Please enter the userid of a User Application role administrator, who has enough rights to assign roles to users. By default the user application driver create a user like “CN=uaadmin,O=users”.

8. Password

Please enter the password of the User Application role administrator.

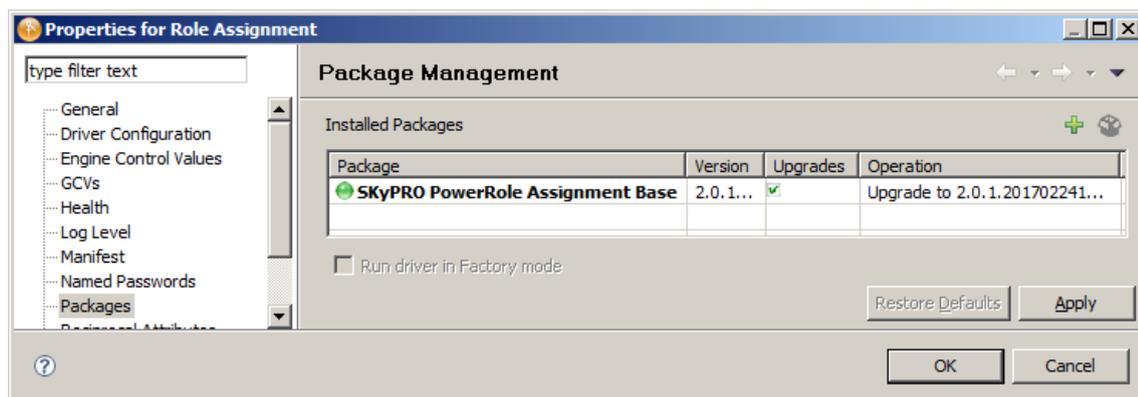
Select “Next” and “Finish” to finalize the driver configuration wizard.

Save the driver and deploy it to your live system. Place a valid role assignment file (see chapter 4.2.2 Role assignment file definition) in to the specified file folder on your server and start the driver. Be default the publisher-polling interval is set to 1 minute. So you may have to wait up to 1 minute before your files will be processed.

4.2.2 Upgrade Role Assignment driver

To upgrade a Role Assignment driver, you first should import the appropriate driver package in to your Designer environment (see chapter 3.3.2 Client Site Installation (Designer)).

Then you should open your SkyPRO Role Assignment Driver’s properties (right mouse click on the driver -> Properties), open the tab “Packages” and select “Upgrade” in the “Operation” column for the “SKYPRO PowerRole Import Base” package. And then press OK.



4.2.3 Role assignment file definition

When you create your spreadsheet to use as input to the role assignment driver, keep in mind that the driver expects a specific format. It expects a two-column document with the columns defined in the order described in Table 2: role assignment file format. The driver also expects the input file to follow the CSV format rules defined in RFC4180. This format is briefly summarized in chapter 4.1.2 Role & Resource import file definition.

A role assignment line example:

```
tu1;pr10-001~20120807~20141225|+/pr10-002.PowerRole.Level10~~20141225|-/pr10-003~20141225|pr10-020
```

Col. No	Field Name	Description
1	uniqueID	Required field: CN of the user object the roles or resources are assigned to. example: „ablake“
2	role or resource	Required field: CN or DN of the role or resource to be assigned. DN can be full or relative to RoleDefs or ResourceDefs container ((DN in dot format). Field can have an optional prefix "+/" (means adding role or resource) or "-/"(means removing role or resource). Resource can be assigned with dynamic entitlement value. The field is multi valued and each value must be in this format: +/cn~validFrom~validTo ResDn~validFrom~validTo~entitlementValue -/dn~validFrom~validTo validFrom, validTo and entitlementValue may be omitted. Dates must have this format: YYYYMMDD example: iPhone~20130901~20131213 -/Director.Subcontainer~20140101 Delimiters depend on your configurations.

Table 2: role assignment file format

5 Testing

For your convenience we provided two example import CSV files for role import (RoleImport.csv) and role assignment (RoleAssignment.csv). These example files assume you have the Utopia IDV server installed with the appropriate users and rbpm data like resources and drivers with entitlements. The Utopia virtual servers are free of charge for all NetIQ registered system integrators and can be downloaded from:

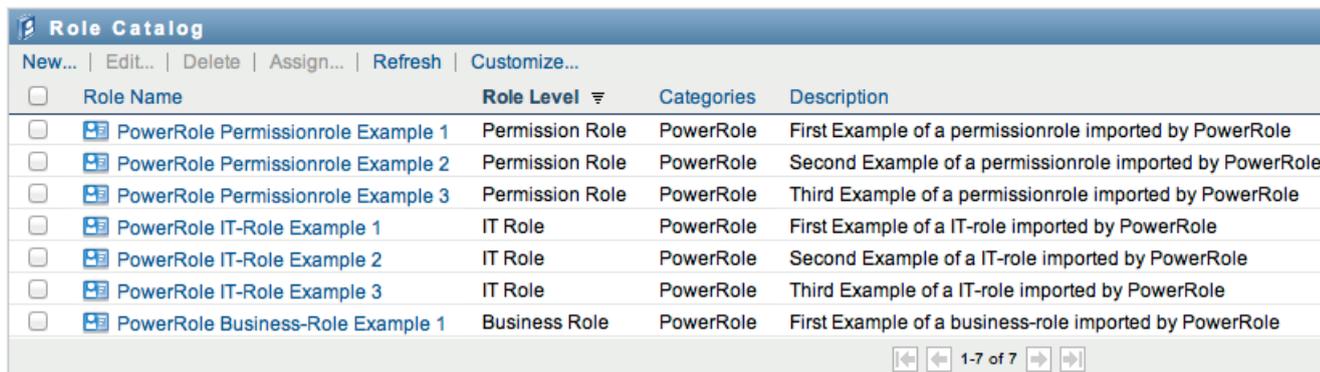
<https://secure-www.novell.com/demosystems/emea/index.html>

If you do not have this virtual server in place you have to modify the example files accordingly.

5.1 Import Example

Create a role import driver as described in chapter 4.1.1 create a new role import driver. Copy the RoleImport.csv file into the specified directory on the file server and start your driver. The file should be processed within 1 minute (if you did not change the polling interval).

After the file has been processed successfully login into your user application portal and select "roles and resources". You should see the following roles:

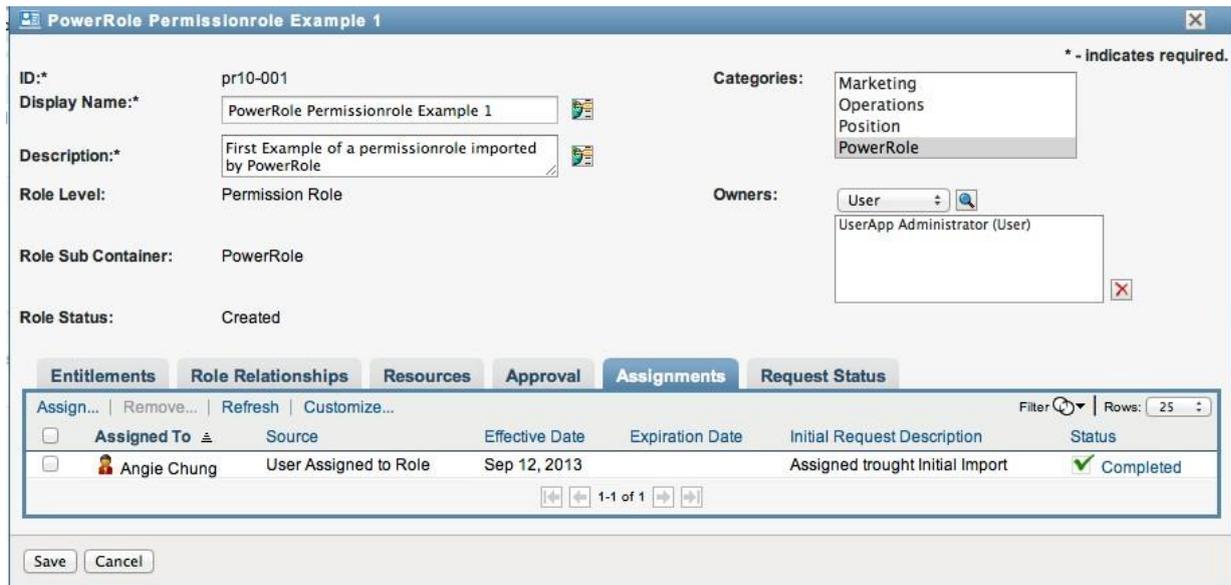


Role Catalog				
New... Edit... Delete Assign... Refresh Customize...				
<input type="checkbox"/>	Role Name	Role Level	Categories	Description
<input type="checkbox"/>	PowerRole Permissionrole Example 1	Permission Role	PowerRole	First Example of a permissionrole imported by PowerRole
<input type="checkbox"/>	PowerRole Permissionrole Example 2	Permission Role	PowerRole	Second Example of a permissionrole imported by PowerRole
<input type="checkbox"/>	PowerRole Permissionrole Example 3	Permission Role	PowerRole	Third Example of a permissionrole imported by PowerRole
<input type="checkbox"/>	PowerRole IT-Role Example 1	IT Role	PowerRole	First Example of a IT-role imported by PowerRole
<input type="checkbox"/>	PowerRole IT-Role Example 2	IT Role	PowerRole	Second Example of a IT-role imported by PowerRole
<input type="checkbox"/>	PowerRole IT-Role Example 3	IT Role	PowerRole	Third Example of a IT-role imported by PowerRole
<input type="checkbox"/>	PowerRole Business-Role Example 1	Business Role	PowerRole	First Example of a business-role imported by PowerRole

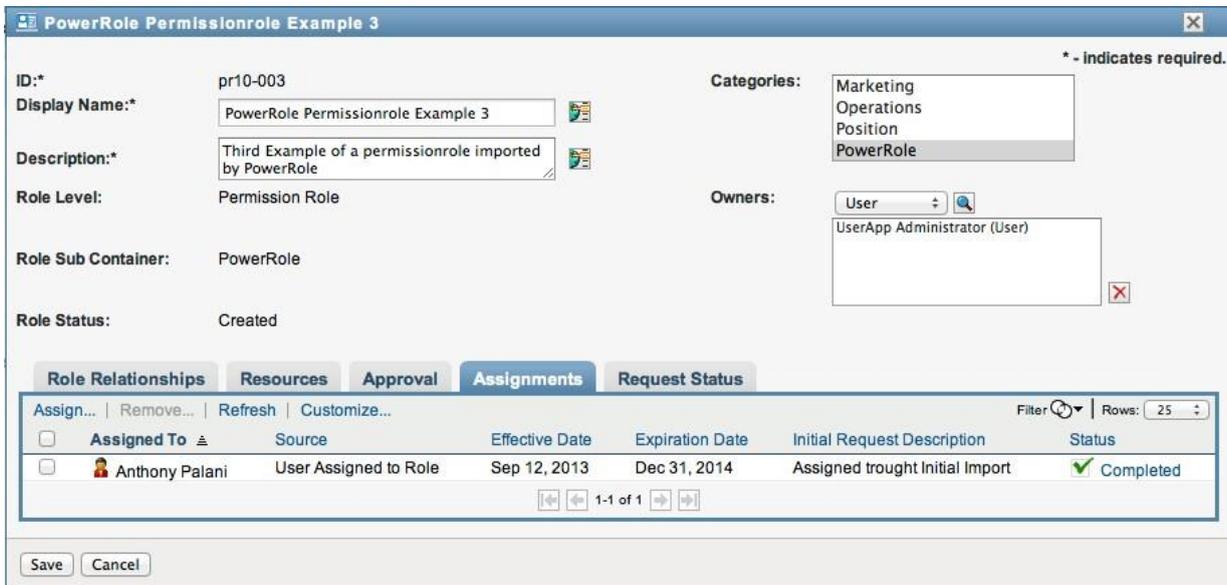
5.2 Assignment Example

Create a role assignment driver as described in chapter 4.2.1 create a new driver. Copy the RoleAssignment.csv file into the specified directory on the file server and start your driver. The file should be processed within 1 minute (if you did not change the polling interval).

After the file has been processed successfully login into your user application portal and select "roles and resources". Select "PowerRole Permissionrole Example 1" and switch to tab "Assignment". You may have to press "refresh". You will find the role assignment done by PowerRole. The role has been assigned to user Angie Chung. Be aware of the effective date the role has been assigned and the initial request description "assigned through initial import".



Select "PowerRole Permissionrole Example 3" and switch to tab "Assignment". You may have to press "refresh". You will find the role assignment done by PowerRole. The role has been assigned to user Anthony Palani. Be aware of the expiration date of the role assignment.



With the last assignment you can play around. Because Angela Blake has received the "PowerRole Business-Role Example 1" this has to be approved by different approvers. Jane Brown, Jack Miller and Jane Smith have to approve this role assignment before it will be assigned to Angela Blake. If you have switched on the parameter "assign role without approval", nobody had to approve this role assignment.

Have fun!