



Permission Comparator

Permission Comparator Administrator Guide, 2024

This Document is for System Administrator

Document Version 6.0

Last Updated on 21st Jan, 2024

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Introduction

The Permission Comparator application allows system administrators to quickly and easily spot unintended or unauthorized changes to Profiles and Permissions.

The Permission Comparator has the following features:

- Track Permission Set or Profile changes throughout the development lifecycle
- Ensure Permission Set and Profile changes destined for Production are visible and authorized before going to Production.
- Admins can compare Permission Set or Profile changes against a secure, custom configured baseline and either accept or reject changes which deviate from the baseline.
- Admins can schedule daily jobs to send alerts of any deviations from the custom configured baseline.
- Admins can compare two different profiles or Permission Sets to easily see the differences
- Admins can update custom created baselines updating them as the security and business requirements change over time.

This application is specifically designed for use by System administrators or security personnel.

Example use case

Consider a scenario where you have Sales Agent users located in EMEA and APAC region. EMEA Sales agents are allowed to work on EMEA accounts only and they should not have an access to APAC accounts. In a recent release, developers have accidentally provided ‘Modify All’ permission on the EMEA Sales Agent profile. Due to this unintended and unauthorized change, all EMEA Agents can suddenly access APAC accounts. This change went unnoticed and it is a violation of data privacy regulation. The Permission Comparator can notify specified admins or security personnel of such changes before they get released to Production thus avoiding a severe security policy violation and ultimate regulatory breach.

More specifically, an admin can define multiple baselines containing the approved permissions on EMEA sales agent’s profile. The admins can schedule a profile comparison job which will run every day and

email any changes to EMEA Sales Agent profile. This can be monitored by Admins and Security personnel as part of the Software Development Lifecycle.

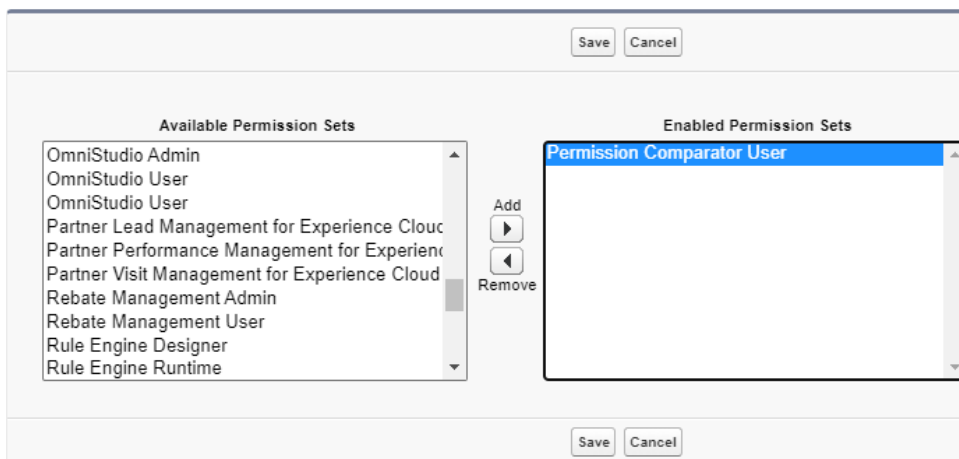
Prerequisites

Comparator Permission Set

Assign Comparator Permissions to User

'Permission Comparator User' permission set contains all required permission for Admins or Security personnel to use the Permission Comparator App. Assign this permission set to the appropriate users.

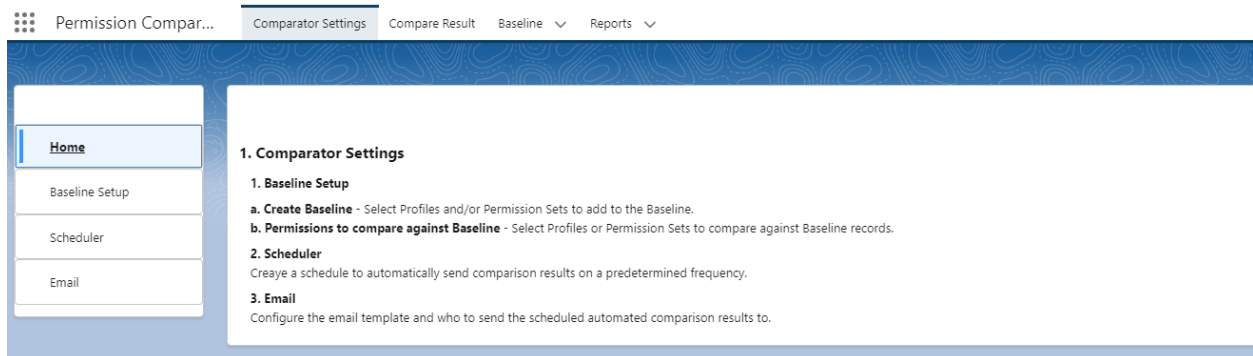
1. Go to Setup  Users
2. Click on any system administrator user record
3. Select and add 'Permission Comparator User' permission set to the user record and save



The screenshot shows the Salesforce user interface for assigning permission sets. On the left, under 'Available Permission Sets', a list includes 'OmniStudio Admin', 'OmniStudio User', 'Partner Lead Management for Experience Cloud', 'Partner Performance Management for Experience Cloud', 'Partner Visit Management for Experience Cloud', 'Rebate Management Admin', 'Rebate Management User', 'Rule Engine Designer', and 'Rule Engine Runtime'. The 'Permission Comparator User' is highlighted in blue. In the center, there are 'Add' and 'Remove' buttons. On the right, under 'Enabled Permission Sets', 'Permission Comparator User' is listed. At the top and bottom of the interface are 'Save' and 'Cancel' buttons.

Home

This sub tab provides guidance to user for handling Comparator Settings sub tab.



The screenshot displays the 'Permission Comparator' application. The top navigation bar shows 'Permission Compar...' followed by tabs for 'Comparator Settings', 'Compare Result', 'Baseline', and 'Reports'. The left sidebar contains a menu with 'Home', 'Baseline Setup', 'Scheduler', and 'Email'. The main content area is titled '1. Comparator Settings' and includes the following sections:

- 1. Baseline Setup**
 - a. Create Baseline** - Select Profiles and/or Permission Sets to add to the Baseline.
 - b. Permissions to compare against Baseline** - Select Profiles or Permission Sets to compare against Baseline records.
- 2. Scheduler**

Create a schedule to automatically send comparison results on a predetermined frequency.
- 3. Email**

Configure the email template and who to send the scheduled automated comparison results to.

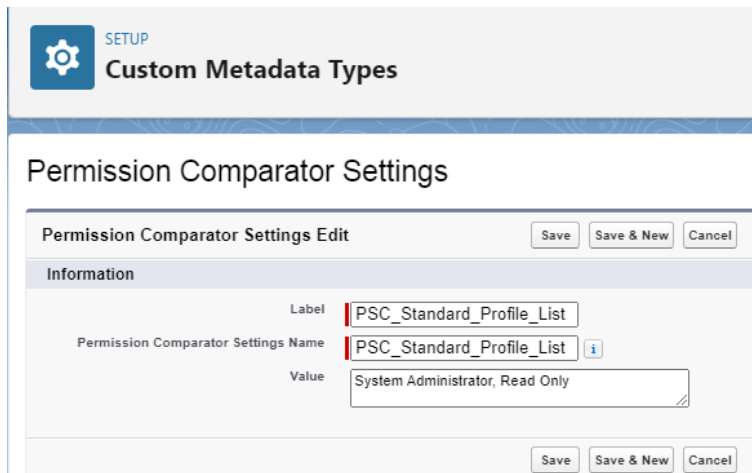
Add Standard Profiles to Custom Metadata type (optional)

This App is configured in such a way that it takes Custom Profiles and Custom Permission Sets names into considerations to provide options in available Profile or permission sets box present on Baseline Sync sub tab. By Default it doesn't allow to select Standard Profile and Permission sets.

However, If as an admin you want to compare Standard Profiles (No standard Permission Sets) then you can simply add them to Custom Meta data type so that Standard Profile will be present in available options box on Baseline sync sub tab. Steps to add Standard Profiles to Custom Meta data type.

Note that this is an optional step and not a prerequisite step.

1. Go to Setup
2. From Home search for "Custom Metadata Types" and click on it.
3. Select "Permission Comparator Settings" from available list
4. Click on "Manage Permission Comparator Settings" button
5. Create New record with Label and Permission Comparator Setting Name = PSC_Standard_Profile_List
Provide comma separated list of profile names



The screenshot shows the 'Custom Metadata Types' setup page in Salesforce. The 'Permission Comparator Settings' section is active, displaying the 'Permission Comparator Settings Edit' form. The form has three main fields: 'Label', 'Permission Comparator Settings Name', and 'Value'. The 'Label' and 'Permission Comparator Settings Name' fields both contain the text 'PSC_Standard_Profile_List'. The 'Value' field contains the text 'System Administrator, Read Only'. There are 'Save', 'Save & New', and 'Cancel' buttons at the top and bottom of the form.

Please note that value should be added like Standard Profile Name → spacebar → comma → spacebar → new Standard Profile Name (follow this format to avoid false value interpretation)

Baseline Setup

Create Baselines of Profiles and Permission Set containing the desired permissions. Admins can create Baselines either manually or automatically by syncing from a current profile and Permission Set available on the Salesforce org.

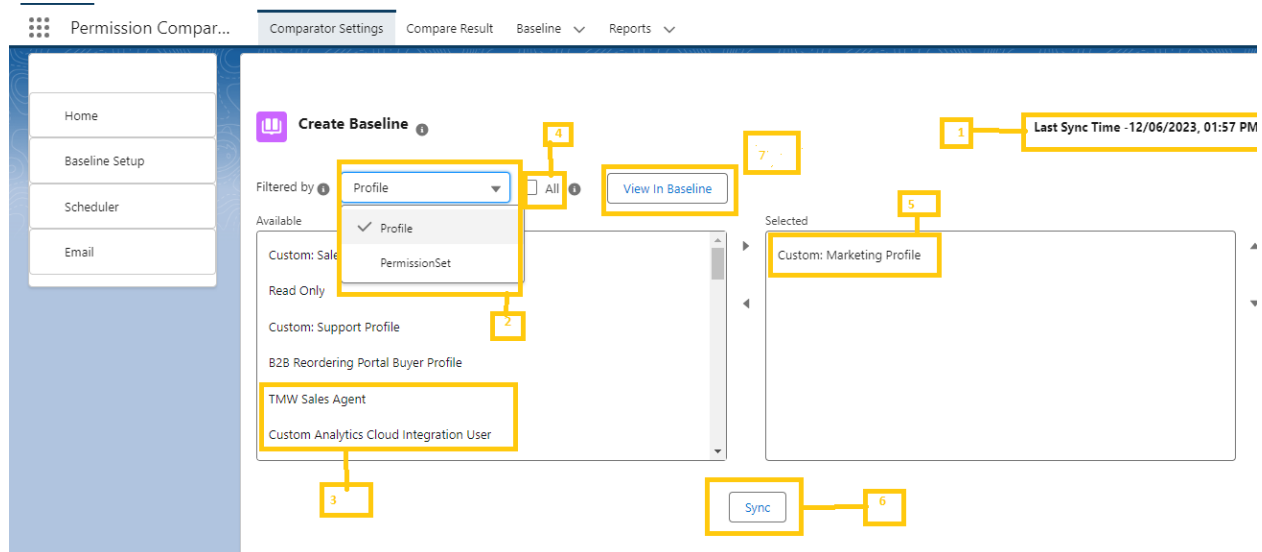
Select from the Profiles and Permission Sets in the applicable Salesforce Org. Permissions which exist on these selected Profiles and Permission Sets will be compared against the Baseline. Only mismatched permissions will be highlighted in comparison results.

The recommendation is to select 'All' the very first time when this app is installed.

Sync Baseline

This allows an admin to create or update permission Baseline records using profiles and permission sets which already exist in the Salesforce Org.

Go to 'Comparator Settings' tab and click on 'Baseline Sync' sub tab.

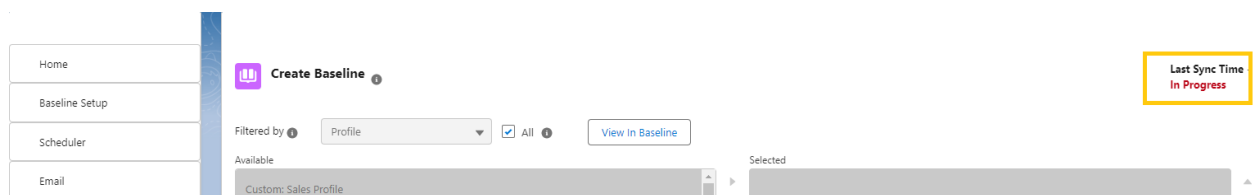


1. 'Last sync date' - The date on which the last time Baseline was created or updated using current org's profile and permission sets.
2. Filtered by – Select Profile or Permission Set to view profiles or permission sets in 'Available' multi select picklists.
3. Select Profile or Permission Sets from 'Available' pick lists and move it to 'Selected' list.
4. If you want to select 'All' click against 'All' checkbox.
5. Selected Profiles can be seen in selected box.
6. Click on 'Sync' button

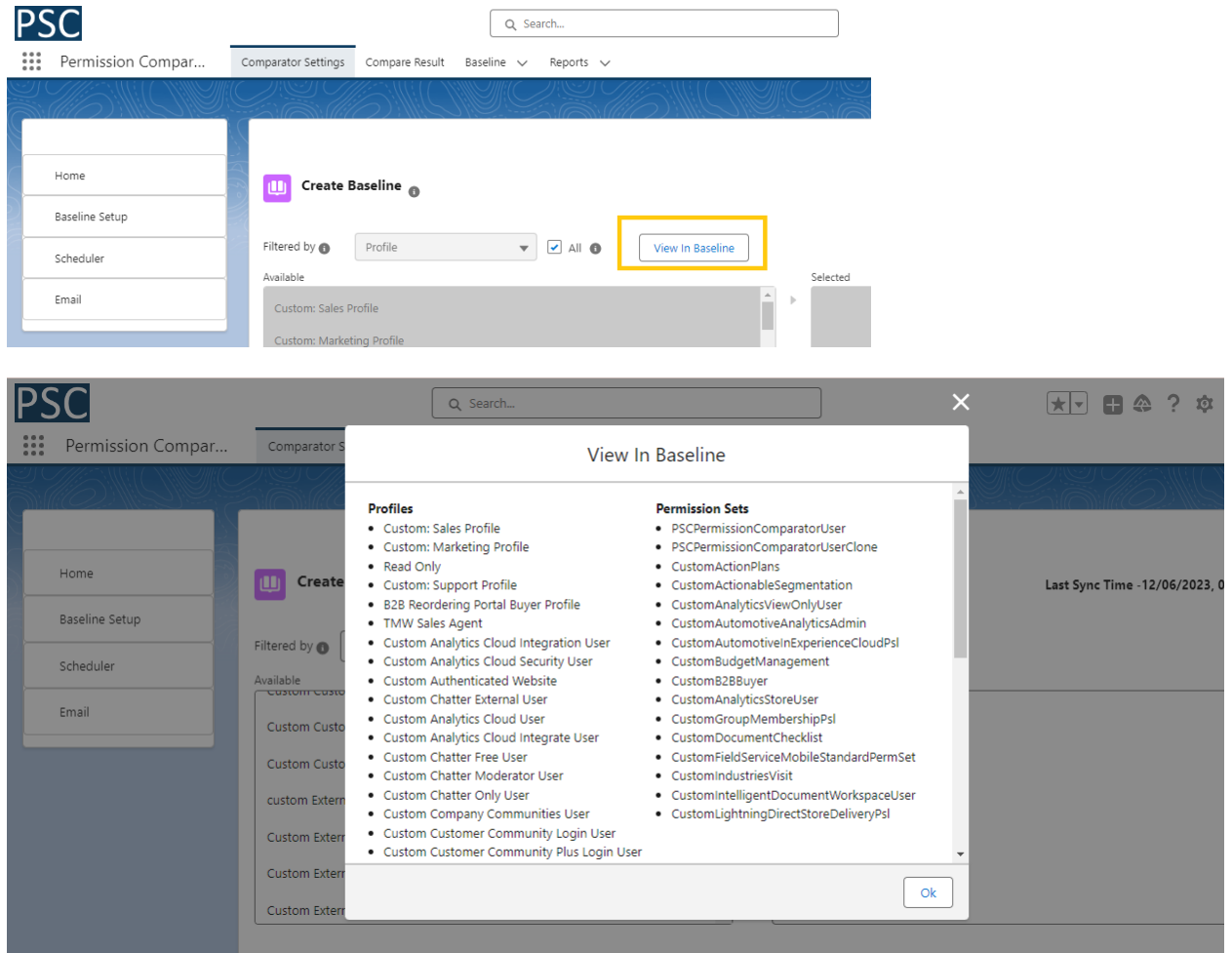
It will run a system job and create the baseline records automatically under 'Baseline' tab.

To view Job status keeps monitoring "Last Sync Time" on Baseline Setup page as shown below. It will show Last Sync Time as "In Progress" until job is completed.

Note - It is recommended to move to the further steps in this guide only once this job is completed.



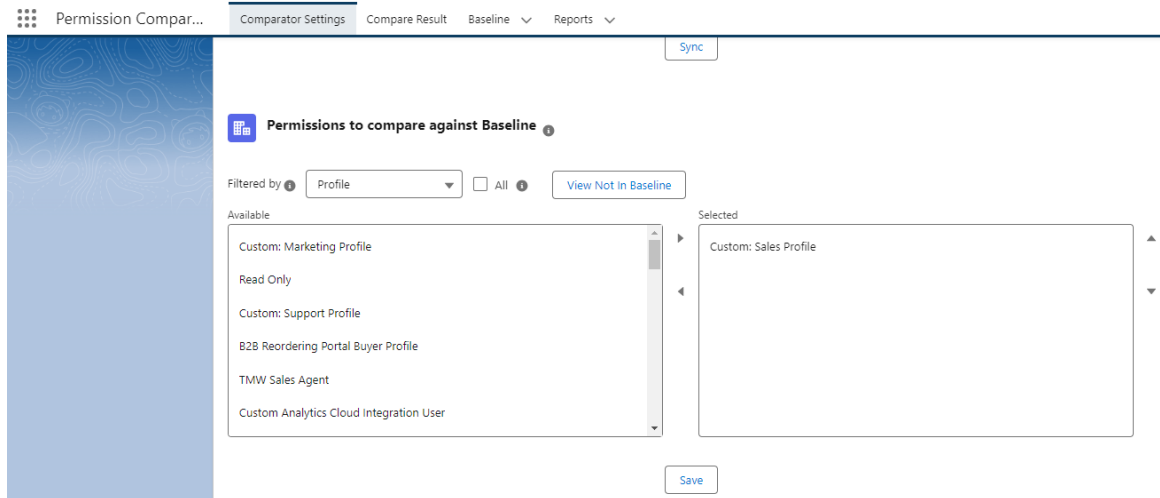
- Once Job is completed, click on 'View in Baseline' button to see already synced Profiles and Permission sets in Baseline. These are the Profiles and Permission Sets available in your baseline.



Select Permission to compare against Baseline

Select the Profiles or Permission Sets which you want to compare against the Baseline.

- Go to "Comparator Settings" tab. Select 'Baseline Setup' sub tab.
- Move to 'Permission to Compare against Baseline' section and select Profile or Permission Set from 'Available' pick list to 'Selected' pick list.
- Click on 'Save'
- Click on 'View Not in Baseline' button to see Profiles and Permission sets which are not synced in Baseline.



View and Change Baseline records

Once Admin sync the Baseline as explained in section “[Sync Baseline](#)”, these are visible under “Baseline” tab. Admin can view or edit the Baseline records from this tab.

View Baseline records

1. Go to ‘Permission Baselines tab
2. Select ‘All’ List view. Make sure the following fields are included in the list view. If not you can edit the list view filter and add them. i.e. ‘Profile or Permission Set Name’, ‘Permission Name’, ‘Type’ and ‘Value’.

Permission Baseline No	This is system generated unique identifier assigned to each record. It is used to open details on any record.
Profile or Permission Set Name	Name of Profile or Permission Set
Permission Name	Name of Permission. For example, “Modify All” or ‘View All’ defined on Profile or Permission Set
Type	Type of Permission. E.g. System Permission, Connected apps etc.
Value	It can be true, false or any text value depending upon the Type of the permission.

3. It will show the details as shown below

Permission Compar... Comparator Settings Compare Result Baseline Reports

Baseline All

50+ items • Sorted by Baseline Permission ID • Filtered by All baseline • Updated a few seconds ago

Search this list...

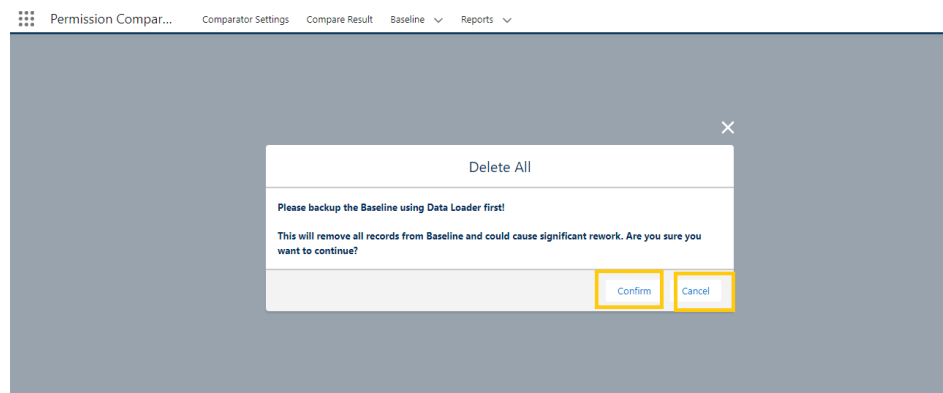
New Import Change Owner Printable View Delete All

	Baseline Permission ID	Profile or PermissionSet Name	Permission Name	Type	Value	
1	PI-385016	Custom: Sales Profile	Send Email	System Permissions	true	
2	PI-385017	Custom: Sales Profile	Mass Email	System Permissions	true	
3	PI-385018	Custom: Sales Profile	Edit Tasks	System Permissions	true	
4	PI-385019	Custom: Sales Profile	Edit Events	System Permissions	true	
5	PI-385020	Custom: Sales Profile	Export Reports	System Permissions	true	
6	PI-385021	Custom: Sales Profile	Import Personal Contacts	System Permissions	true	
7	PI-385022	Custom: Sales Profile	Weekly Data Export	System Permissions	false	
8	PI-385023	Custom: Sales Profile	Manage Users	System Permissions	false	
9	PI-385024	Custom: Sales Profile	Manage Public List Views	System Permissions	false	
10	PI-385025	Custom: Sales Profile	Manage Public Classic Email Templates	System Permissions	false	
11	PI-385026	Custom: Sales Profile	Modify All Data	System Permissions	false	
12	PI-385027	Custom: Sales Profile	Manage Billing	System Permissions	false	
13	PI-385028	Custom: Sales Profile	Manage Cases	System Permissions	false	

Delete Baseline Records

Admin can delete all Baseline records by clicking on 'Delete All' button. Delete can be recommended only when there is a need to create Baseline from scratch. There is a provision to import Baseline from any other Salesforce org. Refer section "[Import/Export Baseline](#)"

1. Go to 'Baseline' tab.
2. Click on 'Delete All' button.
3. Click on Confirm button to delete all baseline records.



Change Baseline Records

Admin should only change the 'Value' field on Baseline records. **Other fields must not be changed manually even though these fields are editable.** The recommendation is to never change Baseline records, even the 'Value' field manually. Always sync records using 'Baseline Setup' option as explained in 'Sync Baseline' section.

1. Go to 'Baseline' tab.
2. Click on "Permission Baseline No' field on any record. It will open detail page
3. Click on 'Edit' button on top right corner.
4. Change the value of 'Value' field depending upon type of permission.

Edit PI-10000

Permission Inventory No: PI-10000

Owner: dipti bramhankar

* Profile PS External Id: ReadOnlyManageCategoriesSystemPermissions

Type: System Permissions

Profile or PermissionSet Name: Read Only

Value: false

Permission Name: Manage Categories

Created By: dipti bramhankar: 9/19/2023, 11:55 AM

Last Modified By: dipti bramhankar: 9/19/2023, 11:55 AM

Buttons: Cancel, Save & New, Save

Scheduler

Admin can email Comparator Results to selected design authority on specific time. Admin can configure time from the Scheduler sub tab.

Scheduler Settings

Frequency:

- ☐ Weekly
- ☐ Monthly

* Start Date: Select Start Date

* End Date: Select End Date

Preferred time:

* Hour: Select hour

* Minutes: Select minutes

Buttons: Schedule, Clear

Schedule Comparator

In order to configure time to email comparator results on specific time.

Go to 'Comparator Settings' tab

1. Select 'Scheduler' sub tab
2. Select Frequency, Start Date, End Date, Preferred time (Hour and Minutes)

- Click on Schedule button
- Example - You can select Frequency as 'Weekly' and then select Recursive Days as 'Monday, Tuesday', Start Date as 'Oct 23,2023', End Date as 'Oct 26,2023', Hour as '10' and Minutes as '15'

Permission Compar... Comparator Settings Compare Result Baseline Reports

Scheduler Settings

Comparator job will run on every Monday, Tuesday in December 2023 at 10:15 o' clock

Frequency
☒ Weekly
☐ Monthly

Recurs every week on
☐ Sunday
☒ Monday
☒ Tuesday
☐ Wednesday
☐ Thursday
☐ Friday
☐ Saturday

* Start Date
 Dec 6, 2023

* End Date
 Dec 21, 2023

Preferred time * Hour * Minutes
 10 15

- Once Admin clicks on the schedule button, it schedules Run Comparator Job on selected time. Admin can see text below 'Scheduler Settings' heading as below –

Permission Compar... Comparator Settings Compare Result Baseline Reports

Scheduler Settings

Comparator job will run on every Monday, Tuesday in December 2023 at 10:15 o' clock

Frequency
☒ Weekly
☐ Monthly

Recurs every week on
☐ Sunday
☒ Monday
☒ Tuesday
☐ Wednesday
☐ Thursday
☐ Friday
☐ Saturday

* Start Date
 Dec 6, 2023

* End Date
 Dec 21, 2023

Preferred time * Hour * Minutes
 10 15

Change the Schedule

In order to change the schedule

- Go to 'Comparator Settings' tab

2. Select 'Scheduler Setting' sub tab
3. Change Frequency, Start Date, End Date, Preferred time (Hour and Minutes) (Change field value you want to change)
4. Click on Schedule button
5. Example - Admin can select frequency as 'Monthly' and then On Day as '25', Start Date as 'Dec 23,2023', End Date as 'Dec 26,2023', Hour as '9' and Minutes as '00'

Permission Compar... Comparator Settings Compare Result Baseline Reports

Home
Baseline Setup
Scheduler
Email

Scheduler Settings

Comparator job will run on every 25th December 2023 at 9:00 o' clock

Frequency
☐ Weekly
☒ Monthly

Every month
☒ On day 25 of every month
☐ On

* Start Date
 Dec 23, 2023

* End Date
 Dec 26, 2023

Preferred time
 * Hour 9 * Minutes 0

Schedule Clear

Delete schedule

In order to delete the schedule time of email Comparator results

1. Go to 'Comparator Settings' tab
2. Select 'Scheduler Setting' sub tab
3. If time is already configured Click on delete button

Permission Compar... Comparator Settings Compare Result Baseline Reports

Home
Baseline Setup
Scheduler
Email

Scheduler Settings

Comparator job will run on every Monday, Tuesday in December 2023 at 10:15 o' clock

Frequency
☒ Weekly
☐ Monthly

Recurs every week on
☐ Sunday
☒ Monday
☒ Tuesday
☐ Wednesday
☐ Thursday
☐ Friday
☐ Saturday

* Start Date
 Dec 6, 2023

* End Date
 Dec 21, 2023

Preferred time
 * Hour 10 * Minutes 15

Schedule Clear

Email

Admins can choose to have comparison results emailed to selected users or groups such as for example a Design Authority. Comparator results are sent as a PDF attachment.

The screenshot shows the 'Email Settings' configuration page. On the left is a navigation menu with 'Home', 'Baseline Setup', 'Scheduler', and 'Email' (which is highlighted). The main content area has tabs for 'Comparator Settings', 'Compare Result', 'Baseline', and 'Reports'. The 'Email Settings' section includes a checkbox for 'Email Results', an 'Email Subject' field with the text 'Permission Comparator Results', and an 'Email Body' field with the text 'Dear Users,'. There are 'Save' and 'Clear' buttons at the bottom.

Enable Email Setting

In order to receive comparator results on email, an Admin must enable 'Email Results' checkbox.

1. Go to 'Comparator Settings' tab
2. Select 'Email Setting' sub tab
3. Check 'Email Results' checkbox and save

This screenshot is identical to the one above, but the 'Email Results' checkbox is highlighted with a yellow border to indicate it needs to be checked.

Add email subject

Admins can set the email subject of their choice. If this is not set then default subject will be set by the app. Which is '<Sandbox Name (Sandbox)> - <Permission Comparator Results>' or '<Org Name (Production)> - <Permission Comparator Results>' for Production

1. Go to 'Comparator Settings' tab
2. Select 'Email Setting' sub tab
3. Edit 'Email Subject' checkbox and save

Permission Compar... Comparator Settings Compare Result Permission Inventories Permis:

Permission Sync
Scheduler Setting
Email Setting

Email Settings

☐ Email Results

Email Subject
devpro(Sandbox) - Permission Comparator Results

Email Body

Dear Users,

Please find attached comparator results and take appropriate actions

Thanks,
Permission Comparator Team

Save Clear

Add email body

Admins can set the email body of their choice. If this is not set then default body will be set by the app. This is as shown in below screen.

1. Go to 'Comparator Settings' tab
2. Select 'Email Setting' sub tab
3. Edit 'Email Body' checkbox and save

Permission Compar... Comparator Settings Compare Result Permission Inventories Permis:

Permission Sync
Scheduler Setting
Email Setting

Email Settings

☒ Email Results

Email Subject
devpro(Sandbox) - Permission Comparator Results

Email Body

Dear Users,

Please find attached comparator results and take appropriate actions

Thanks,
Permission Comparator Team

Save Clear

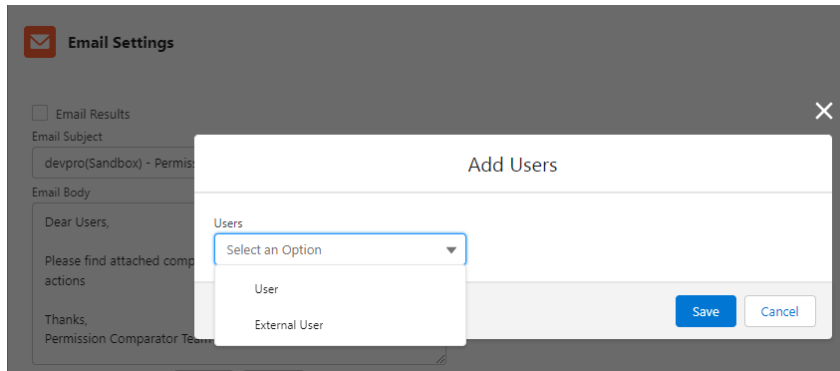
Add users

Admin can add existing users in the Salesforce org only. These users will receive an email containing the Comparator results. If Admin doesn't add any users, the app will send results to the user who has scheduled the comparator or to any user who is currently running a comparator job manually.

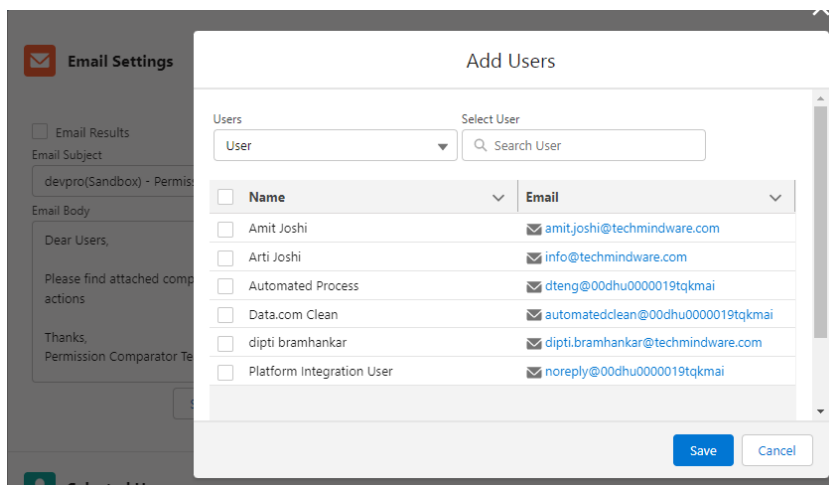
1. Go to 'Comparator Settings' tab
2. Select 'Email Setting' sub tab
3. Click on 'Add button



4. Select either 'Users' to select user exists on Salesforce org or 'External Users' to specify name and email addresses of users who are not on Salesforce org.



5. If Admin select 'User' option, it will show first 10 users' presents on Salesforce org. If Admin doesn't see the user of choice, type the name in the 'Search user' text box.



6. If admin select the 'External User' option, it will allow admin to specify the Name and Email addresses of external user.

7. Save

Remove users

1. Go to 'Comparator Settings' tab
2. Select 'Email' sub tab
3. Click select users and click on 'Remove' button

Selected Users				Add	Remove
☒	Name	Email	Type		
☒	Automated Process	dteng@00dhu0000019tqkmai	Email User		
☒	James	james@psc.com	Email Address		

Comparator Results

This section allows an admin to run the Comparator, view results, send results on email, Accept or Recall selected or all permissions

Run

This will run a system job which will compare the profile and permission Set in the current org with the permission Baseline present on the same org. Once job is finished, it will show all the deviations from the Baseline on the Comparator Results tab.

To Run the job, Go to 'Compare Result' tab and click on 'Run' button.

Comparator Result - Last Sync Time -9/26/2023, 03:17 PM							
Profile Name	Permission Name	Type	Changed Type	Old Value	New Value	Action	
Custom Sys Admin	Login_Hours	Login Hours	CHANGED	Su=0 AM 11 PM,M=0 AM 0 AM,T=0 AM 11 PM,W=0 AM 11 PM,Th=0 AM 11 PM,F=0 AM 11 PM,S=0 AM 11 PM	Su=11 AM 11 PM,M=9 AM 11 PM,T=0 AM 11 PM,W=0 AM 11 PM,Th=0 AM 11 PM,F=0 AM 11 PM,S=0 AM 11 PM		

Note that every time admin run the job, it deletes the previous comparator results and creates new records. This application does not maintain previous results.

View Results

To view the results, go to 'Compare Result' tab.

Profile Name	Permission Name	Type	Changed Type	Old Value	New Value	Action
Custom Sys Admin	Login_Hours	Login Hours	CHANGED	Su=0 AM 11 PM,M=0 AM 0 AM,T=0 AM 11 PM,W=0 AM 11 PM,Th=0 AM 11 PM,F=0 AM 11 PM,S=0 AM 11 PM	Su=11 AM 11 PM,M=9 AM 11 PM,T=0 AM 11 PM,W=0 AM 11 PM,Th=0 AM 11 PM,F=0 AM 11 PM,S=0 AM 11 PM	

Below is the explanation of each of the fields on Comparator results.

Profile Name	This is the name of Profile or Permission Set
Permission Name	It shows the name of the permission. For example, View All, Modify All or Login_Hours defined on profile or permission set
Type	It shows the type of the permission. It may contain the following values: Assigned App, Assigned Connected Apps, Object Settings, App Permissions, Apex Classes, Visualforce pages, External Data source access, Named Credentials, External creds principal access, Flow access, Service status, Custom Permissions, Custom Metadata Types, Custom Setting Definitions, System Permissions, Login Hours, Login IP Ranges, Service Providers, Session Settings, Password Policies, Default Experience and Field Permissions
Changed Type	It may contain the following values: ADDED – if the permission is not present in the Baseline but has recently been added to the Profile or Permission Set CHANGED – If the permission is present both in Baseline and Profile or Permission Set but has recently been changed. For example, in Baseline 'View All' permission is set to false but recently on Profile or Permission Set was set to 'true' DELETED – if the permission is present in the Baseline but removed recently from the Profile or Permission Set. For example, there is a connected

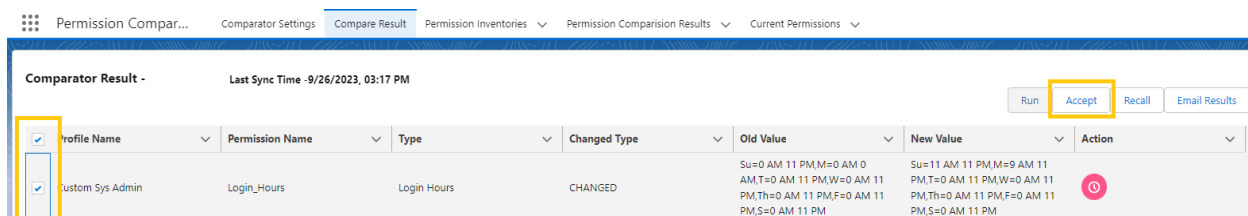
	app called 'Mule Integration' which is present in the Baseline but recently removed from Profile or Permission Set
Old Value	Permission value as per the Baseline.
New Value	Permission value which deviates from the Baseline
Action	There are three actions Pending [] - It is pending for review by an Administrator. A user can review it, select that permission and click on Accept or Recall button. Accepted [] – The Administrator has reviewed it and Accepted it by clicking the Accept button. It means that the Baseline record for that permission is updated with what has changed on profile. Recalled [] - An Administrator has previously accepted the change but later decided to revert it. In this case, the Admin can select that permission record and click on the 'Recall' button. The status will be changed to 'Recalled'

Accept Permission Changes

An administrator can review the changes in Profile or Permission Set and accept it. The initial status for each record will be 'Pending'. Once an administrator has accepted it, it will change to 'Accepted' and the Baseline record will be updated. The next time an Administrator runs the job, the record will not appear because it was accepted by an Administrator and now both Baseline and Profile and Permission Set have the same value for that particular permission.

To accept the change,

1. Go to 'Compare Result' tab.
2. Select particular Permission record or select multiple records
3. Click on 'Accept' button from top right corner



Recall Changes

An administrator can review the changes in Profile or Permission Set and recall it. For example, recently a developer has provided 'Modify All' permission to the Sales Agent profile. The administrator has discussed this with business and accepted the change. Later on business changed their mind and decided not to allow Sales Agents access all data. They informed the Admin and in turn the admin recalled the changes using the 'Recall' button. The admin has informed the developer to revert the change from the actual profile. The initial status for each record is 'Pending'. Once administrator recalled it, it will change to 'Pending' and Baseline record will be reverted to the previous value.

To recall the change,

1. Go to 'Compare Result' tab.
2. Select particular Permission record or select multiple records
3. Click on 'Recall' button from top right corner

Permission Compar... Comparator Settings Compare Result Permission Inventories Permission Comparison Results Current Permissions

Comparator Result - Last Sync Time - 9/26/2023, 03:17 PM

Run Accept Recall Email Results

☒	Profile Name	Permission Name	Type	Changed Type	Old Value	New Value	Action
☒	Custom Sys Admin	Login_Hours	Login Hours	CHANGED	Su=0 AM 11 PM,M=0 AM 0 AM,T=0 AM 11 PM,W=0 AM 11 PM,Th=0 AM 11 PM,F=0 AM 11 PM,S=0 AM 11 PM	Su=11 AM 11 PM,M=9 AM 11 PM,T=0 AM 11 PM,W=0 AM 11 PM,Th=0 AM 11 PM,F=0 AM 11 PM,S=0 AM 11 PM	✓

Email Results

This feature allows users to review results offline.

To send results on email,

1. Go to 'Compare Result' tab.
2. Click on 'Email Results' button from top right corner

Permission Compar... Comparator Settings Compare Result Permission Inventories Permission Comparison Results Current Permissions

Comparator Result - Last Sync Time - 9/30/2023, 02:08 PM

Run Accept Recall Email Results

☐	Profile Name	Permission Name	Type	Changed Type	Old Value	New Value	Action
☐	Custom Sys Admin	Login_Hours	Login Hours	CHANGED	Su=0 AM 11 PM,M=0 AM 0 AM,T=0 AM 11 PM,W=0 AM 11 PM,Th=0 AM 11 PM,F=0 AM 11 PM,S=0 AM 11 PM	Su=11 AM to 11 PM/nMon=9 AM to 11 PM Tue=0 AM to 11 PM Wed=0 AM to 11 PM Thu=0 AM to 11 PM Fri=0 AM to 11 PM...	✗

Note – In order to receive the email, make sure that the checkbox is checked, 'Comparator Settings' Email Settings.

Last sync time

This is the time when the Permission Comparator job ran and produced the results.

Sorting Result

Administrators can sort records present under the Comparator Result table in either ascending or descending order. Sorting can be applied on 3 Columns from the table. These columns are Profile/PS Name, Permission Name and Type. To sort the Comparator Result records

1. Go to 'Compare Result' tab.
2. Hover on column you want to apply sorting
3. Click on the arrow present beside Column Name. Example - If you want to apply sorting on Profile/PS Name column

Profile/PS Name	Permission Name	Type	Changed Type	Old Value	New Value	Action
Custom: Marketing Profile	Incident.ResolutionDateTim	Field Permissions	ADDED		Read=true>Edit=true	ⓘ
Custom: Marketing Profile	Incident.ResolutionSummar	Field Permissions	ADDED		Read=true>Edit=true	ⓘ
Custom: Marketing Profile	Incident.ResolvedById	Field Permissions	ADDED		Read=true>Edit=true	ⓘ
Custom: Marketing Profile	Incident.SlaExitDate	Field Permissions	ADDED		Read=true>Edit=true	ⓘ
Custom: Marketing Profile	Incident.SlaStartDate	Field Permissions	ADDED		Read=true>Edit=true	ⓘ
Custom: Marketing Profile	Incident.StartDateTime	Field Permissions	ADDED		Read=true>Edit=true	ⓘ
Custom: Marketing Profile	Incident.StopStartDate	Field Permissions	ADDED		Read=true>Edit=true	ⓘ

4. Direction of arrow indicates records are sorted in either ascending or descending order
5. Upward direction - It indicates records are sorted in ascending order.
6. Downward direction - It indicates records are sorted in descending order.

Note - Records on a particular page can be sorted only. No server call is made.

Reports

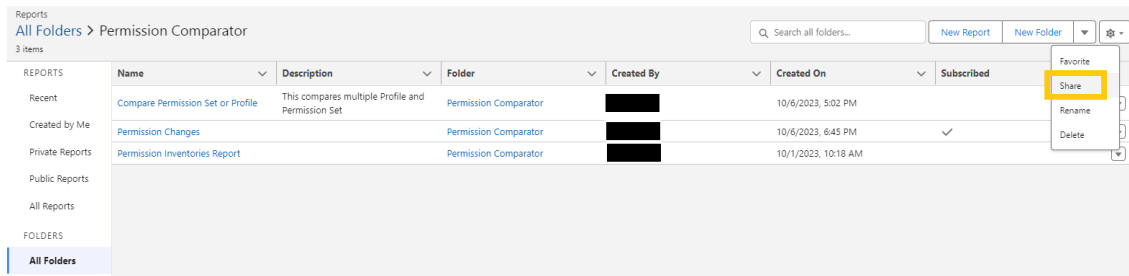
Prerequisites

There are out of box reports created with this application. You can access those reports stored in 'xxx' folder. However before accessing the folder, make sure to share it with the appropriate Comparator users.

1. Go to Reports Tab, click on 'All Folders' from left navigation menu
2. Click on 'Permission Comparator' folder

REPORTS	Name	Created By	Created On
Recent	Einstein Bot Reports	Automated Process	9/17/2023, 4:31 PM
Created by Me	Einstein Bot Reports Spring '23	Automated Process	9/17/2023, 4:31 PM
Private Reports	Einstein Bot Reports Summer '23	Automated Process	9/17/2023, 4:31 PM
Public Reports	Einstein Bot Reports Summer '22	Automated Process	9/17/2023, 4:31 PM
Public Reports	Einstein Bot Reports Winter '23	Automated Process	9/17/2023, 4:31 PM
All Reports	Permission Comparator		10/10/2023, 5:56 PM
FOLDERS			
All Folders			

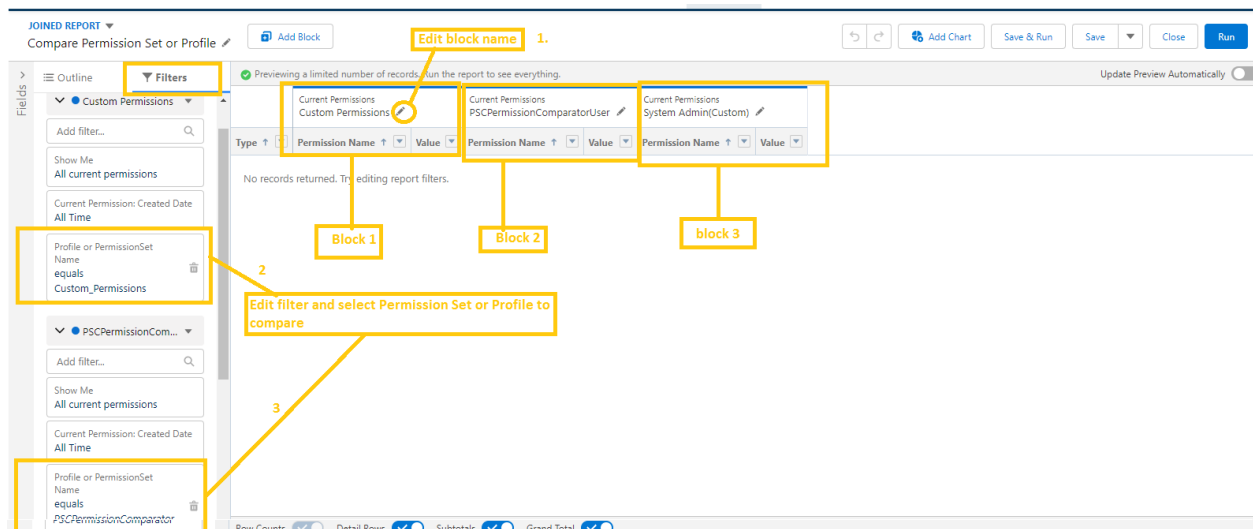
3. Click on 'Share' option from top right folder dropdown



4. Search and add the users and save

Compare different Profiles or Permission Sets

This is an out of box report which gives you the ability to compare two or more different profiles or two or more permission sets . This is a Joined report having multiple blocks. Each block represents selected profiles or permission sets. You can add up to 5 blocks. It means you can compare 5 different profiles or permission sets at a time.



As shown in above diagram

- Edit block Name. Provide the name of the profile or permission set which you want to compare.
- and (3) – edit each filter and select name of the profile or permission set which you want to compare
- Block 1, Block 2 and Block 3 - This indicates three profiles or permission sets are compared at a time using this report.

Assume that you have two profiles named 'Sales Agent' and 'Service Agent' and that you want to compare the permissions between these two profiles. Here are the steps to follow to edit the report and compare these 2 profiles.

1. Go to 'Reports' tab
2. Click on 'All Folders'
3. Click on 'Permission Comparator' Folder
4. Open 'Compare Permission Set or Profile' report. Click on 'Edit' button
5. From left side, click on 'Filter' sub tab and edit the first filter 'Profile or Permission Set Name equal' and provide value 'Sales Agent'
6. Now edit the second filter and provide value 'Service Agent' for 'Profile or Permission Set Name equal'
7. From report body area, edit the first block name and provide value 'Sales Agent'
8. Similarly edit the second block name and provide value 'Service Agent'
9. Click on Save and Run

View Baseline

This out of box report gives you an ability to view Baseline records present in Salesforce Org. To view or edit report you can need to follow steps mentioned below -

1. Click on 'All Folders'
2. Click on 'Permission Comparator' Folder
3. Open 'Permission Inventories Report' report. Click on 'Edit' button

PSC Permission Compar... Comparator Settings Compare Result Permission Inventories Current Permissions Reports

REPORT ▼ Permission Inventories Report Permission Inventories

Previewing a limited number of records. Run the report to see everything. Update Preview Automatically

Fields

Groups

GROUP ROWS

Add group...

Columns

Add column...

Profile or PermissionSet Name x

Permission Name x

Type x

Value x

Profile or PermissionSet Name	Permission Name	Type	Value
1 PSCPermissionComparatorUser	Manage Entitlements	System Permissions	false
2 PSCPermissionComparatorUser	Manage Dynamic Dashboards	System Permissions	false
3 PSCPermissionComparatorUser	Show Custom Sidebar On All Pages	System Permissions	false
4 PSCPermissionComparatorUser	Manage Flow	System Permissions	false
5 PSCPermissionComparatorUser	View My Team's Dashboards	System Permissions	false
6 PSCPermissionComparatorUser	Reset User Passwords and Unlock Users	System Permissions	false
7 PSCPermissionComparatorUser	Require Flow User Feature License	System Permissions	false
8 PSCPermissionComparatorUser	Access Activities	System Permissions	false
9 PSCPermissionComparatorUser	Manage Knowledge Article Import/Export	System Permissions	false
10 PSCPermissionComparatorUser	Manage Email Templates	System Permissions	false
11 PSCPermissionComparatorUser	Email Administration	System Permissions	false
12 PSCPermissionComparatorUser	Create Public Links	System Permissions	false
13 PSCPermissionComparatorUser	Multi-Factor Authentication for User Interface Logins	System Permissions	false
14 PSCPermissionComparatorUser	View Event Log Files	System Permissions	false

As shown in above diagram

- Block 1 - From Add group you can select the option to apply the group by filter on Baseline data. You can group by table data using Profile or Permission Set Name, Type field
- Block 2 - Select columns which you want to display on report. Columns you need to add are Profile or Permission Set Name, Permission Name, Type, Value to view all data available for particular Inventory record.
- From left side, click on 'Filter' sub tab and edit the filter 'Profile or Permission Set Name equal' and provide value 'Read Only' (You can add more filter criteria for other fields as well)
- To view records created by a particular user you can go to click on the 'Filter' subtab from the left side and edit the filter option 'Show Me' and Select options from dropdown.
Example- Select My Baseline to view records created by you. Refer diagram below to add changes.

PSC Permission Compar... Comparator Settings Compare Result Permission Inventories Current Permissions Reports

REPORT ▼ Permission Inventories Report Permission Inventories

Previewing a limited number of records. Run the report to see everything. Update Preview Automatically

Fields

Filters

Add filter...

Show Me

All permission inventories

Permission Inventory: Created Date

All Time

Profile or PermissionSet Name equals

PSCPermissionComparatorUser

Edit Filter

Show Me

All permission inventories

My permission inventories

My team's permission inventories

All permission inventories

Filter by scope

Profile or PermissionSet Name	Permission Name	Type	Value
1 PSCPermissionComparatorUser	Manage Entitlements	System Permissions	false
2 PSCPermissionComparatorUser	Manage Dynamic Dashboards	System Permissions	false
3 PSCPermissionComparatorUser	Show Custom Sidebar On All Pages	System Permissions	false
4 PSCPermissionComparatorUser	Manage Flow	System Permissions	false
5 PSCPermissionComparatorUser	View My Team's Dashboards	System Permissions	false
6 PSCPermissionComparatorUser	Reset User Passwords and Unlock Users	System Permissions	false
7 PSCPermissionComparatorUser	Require Flow User Feature License	System Permissions	false
8 PSCPermissionComparatorUser	Access Activities	System Permissions	false
9 PSCPermissionComparatorUser	Manage Knowledge Article Import/Export	System Permissions	false
10 PSCPermissionComparatorUser	Manage Email Templates	System Permissions	false
11 PSCPermissionComparatorUser	Email Administration	System Permissions	false

- Click on Save and Run.

Export and Import Permission Baselines

By default, Permission Baselines are created from the Salesforce Org where the Permission Comparator App is installed.

When you installed the Permission Comparator app on a Salesforce org and performed a Permission Sync, the Permission Baselines are created using existing Profile and Permission Set. This may not be ideal for every scenario. Ideally, you want to create your Permission inventories on the Production org and then you want to compare Profile and Permission Set on any sandboxes against it.

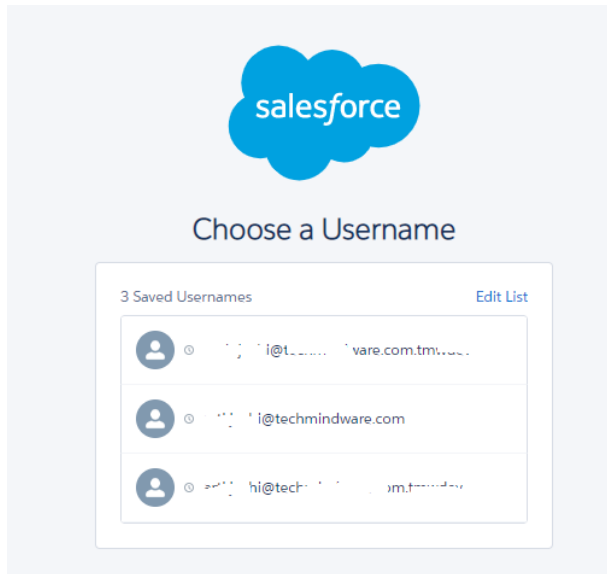
Currently the Permission Comparator cannot directly compare Profile and Permission Set between the Production org and Sandboxes directly. However there is a workaround as follows:

1. Install Permission Comparator app on Production org
2. Run Baseline Sync from Permission Sync sub tab on Comparator Setting tab
3. Export 'Permission Inventories' records either using data loader or Salesforce Workbench in CSV format. Steps are mentioned below
4. Install Permission Comparator on any Sandbox org
5. Make sure you don't run 'Permission Sync' on the Sandbox
6. Import CSV file exported in step-3 above to Sandbox in 'Permission Baselines
7. Configure other settings and configuration in Permission Comparator in the respective Sandbox(es) org(s)
8. Run Comparator Job from using 'Run' button on 'Compare Results' tab

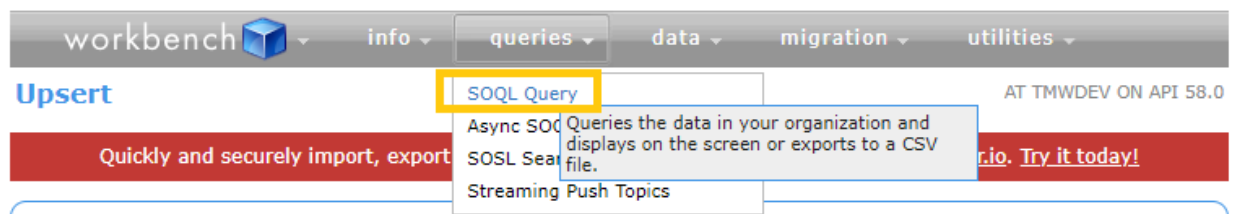
Export Records from Production

Here are the steps

1. Open a browser and enter the URL <https://workbench.developerforce.com/login.php>
2. Select Environment as 'Production' and default API Version
3. It will redirect you to Salesforce login page as shown below and ask for authorization. If you are already logged in to production org



4. Select the appropriate user and log-in
5. From the Home Page, select SOQL Query option



6. From Object, select "" and select fields as shown in below query and select "**Bulk CSV**" checkbox and click on "Query" button

```
SELECT Id, Name, PermissionName__c, Profile_PS_External_Id__c, Profile_PS_Name__c,
SubType__c, Type__c, Value__c FROM PSCInventory__c
```

workbench  info queries data migration utilities

SOQL Query

AT TMWDEV ON API 58.0

Visual Studio Code now includes a [SOQL Builder](#). Try it today!

Choose the object, fields, and criteria to build a SOQL query below:

Object:
PSCInventory__c

View as:
☒ List
 ☐ Matrix
 ☐ Bulk CSV
 ☐ Bulk XML

Deleted and archived records:
☒ Exclude
 ☐ Include

Fields:
Profile_PS_External_Id__c
Profile_PS_Name__c
SubType__c
SystemModstamp
Type__c
Value__c

Sort results by:
A to Z
Nulls First

Max Records:

Filter results by:
=

Enter or modify a SOQL query below:

```
SELECT Id,Name,PermissionName__c,Profile_PS_External_Id__c,Profile_PS_Name__c,SubType__c,Type__c,Value__c FROM PSCInventory__c
```

Query

7. Once records are ready, you can click on “Download” icon as shown below

workbench  info queries data migration utilities

Bulk API Job Status

AT TMWDEV ON API 58.0

A job has been uploaded to Salesforce via the Bulk API and is being processed asynchronously as resources are available. Refresh this page periodically to view the latest status. Results can be downloaded when batches are complete.

Job: 750Hu00000gAuHhIAK

Status Closed	Records Processed 6655	Batches Queued 0
Object PSCInventory__c	Records Failed 0	Batches In Progress 0
Operation Query	Concurrency Mode Parallel	Batches Completed 1
External Id	API Version 58.0	Batches Failed 0
API Processing 0 ms	Apex Processing 0 ms	Total Processing 0 ms
Created 10:15:02 AM	Last Modified 10:15:02 AM	Retries 0

Batches

Id	Status	Processed	Failed	Created	Last Modified
 751Hu00000v7g7SIAQ	Completed	6655 records	0 records	10:15:02 AM	10:15:03 AM

Requested in 0.132 sec
Workbench 58.0.0

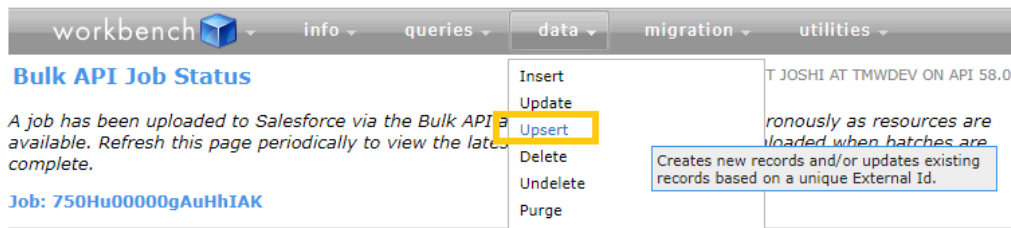
8. Verify that the .csv file is in your download folder

Import Records to Sandbox

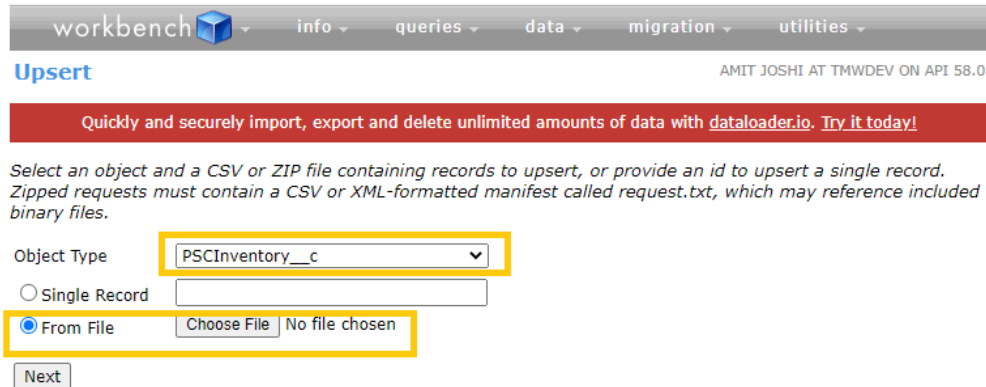
To import record in a sandbox or in any other environment, follow the steps below

- Follow the steps 1 to 4 mentioned above “Export Records from Production” section.

- Click on “Upsert” option under “data” menu

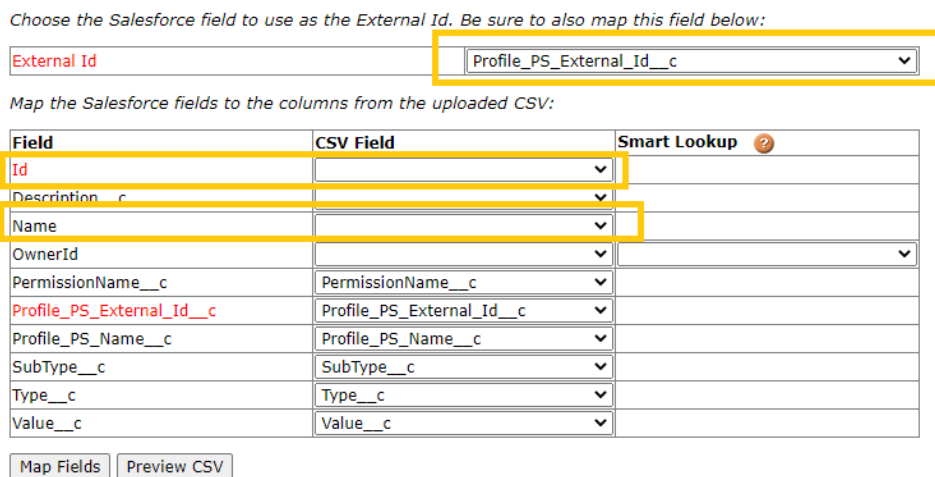


- Select the Object “PCCInventory__c” in which records will be upserted and the file extracted previously and click on Next



- In the next screen, Map the fields as shown below. Remember to select “External Id” field as “PS_Profile_PS_External_Id__c”

Keep “Id” and “Name” Fields as blank



- Click on Map Fields
- Confirm Upsert

Consideration

1. This tool doesn't update actual profiles or permission sets rather it just tracks the changes made to them.

Current Limitations / Future Enhancements

1. Changes to Profile Password Policy are not tracked and cannot be compared
2. Changes to Profile Session Settings are not tracked and cannot be compared
3. Changes to Profile Service Providers are not tracked and cannot be compared