SAP SuccessFactors People Analytics: Report Story Design & Implementation Considerations
The recommendations in this document are based on the functionality available up to SuccessFactors release mentioned above. Future functionality can impact recommendations provided by this document. We strive to keep these recommendations up-to-date, however, in case you find that recent new functionality have not yet been considered in the latest version of this document, please reach out to your Customer Success Manager / Partner Delivery Manager or send an email to: SAPSuccessFactorsIDPDoc@sap.com.

Implementation Design Principles (IDPs) for SuccessFactors solutions are delivered by SAP for helping customers and partners on how to choose the most appropriate strategy and solution architecture for SuccessFactors implementations. IDPs are compiled taking into consideration the experience of many implementation projects and addressing frequent business requirements as well as real-life implementation challenges. They are continuously reviewed and updated as product functionality evolves. In addition, the reader is advised to read and familiarize with essential and additional product-related documentation which includes Implementation Guides, SAP Notes, SAP Knowledge Base Articles, and additional assets as referenced in this document, see chapter 6.
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1 TERMINOLOGY

The following table explains some abbreviations used in this document.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>SAC</td>
<td>SAP Analytics Cloud</td>
</tr>
<tr>
<td>RBP</td>
<td>Role Based Permissions</td>
</tr>
<tr>
<td>ORD</td>
<td>Online Report Designer</td>
</tr>
</tbody>
</table>

2 ABSTRACT

This document provides various design and implementation considerations on leveraging SAP SuccessFactors People Analytics report stories to create visually rich and critical reports for various business scenarios as well provides product guidance on how to successfully help customers migrate to the new report story from the existing reporting artefacts. It also provides necessary guidelines to effectively create and manage Report Stories, that are important to you as a report administrator.

3 INTRODUCTION

SAP SuccessFactors People Analytics Report Stories will consolidate all legacy SAP SuccessFactors transactional reporting tools into a single tool for reporting, insights, dashboards among others which will enable customers to perform cross-suite reporting based on live transactional data across the SAP SuccessFactors HCM suite. This document will guide you on how to make use the features of Report Story which are essential to create performant and effective Report Stories and at the same time help you migrate to the new report tool by providing detailed design and implementation considerations.

4 BUSINESS REQUIREMENTS

Following business requirements are discussed in this document.

4.1 Functional Requirements

- Transition to the New Reporting Tool

People Analytics report story (using SAP analytics Cloud) will replace the current SuccessFactors reporting tools namely report canvas, report table and tiles & dashboards in a phased manner. Customers need the skills in using the new tools and guidance on how to migrate the existing reports to report story type reports as well as how they could introduce and rollout the new reports to their organization.

Due to the complexity of the tools and differences in the data model, report capabilities and customer specific SAP SuccessFactors configurations, it is not possible to provide a migration tool to convert the current reports in the new report story type. With the new features, you can also reinvent the reporting experience to offer a better understanding of the data and HR processes with powerful data exploration and to position the report story as a real alternative to Excel download. Therefore it is important that you start to make an inventory of your reports and map them with business needs, become familiar with the new tool via the standard content, acquire the proper skills and start rebuilding the needed reports. This
requirement is addressed in section 5.1 along with many tips and guidelines explaining how to achieve this.

4.2 Technical Requirements

The document also addresses various technical guidelines that affects the report story creation. It provide details on how joins are used in query designer, what are the different kinds of advanced filters available, how to utilize explorer mode among other details. The detailed guidelines are discussed from section 5.3 onwards.

5 DETAILED SOLUTION

5.1 Understanding Report Center Usage for Transition

When you plan to start using the new SAC based reporting tool, it is advised to investigate the current use of the Report Center and available reports in your organization. Some of the questions to investigate are as follows:

- Which type of reports are available in the Report Center?
- Who are using these reports and which reports are shared by which users / roles / groups?
- What are the reports used for? Which process does a report support and in what way?
- Which reports are actually used?
- When are they used (frequency) and how (online / offline / export)?

The Report Center contains the full list of available reports such as report canvas, report table, tile, dashboard and report custom. As a Report Administrator you should be able to find the full list of all kinds of reports of your company in the “All Reports” tab in the Report Center (figure 1.):

![Figure 1. Report Center showing All Reports](image)

Make sure you select the “All Reports” tab and select the “Reports” button as illustrated above (figure 1). This will provide you with the full list of reports created. You can identify the report author and check if the report has been shared with other Users, Groups or Roles as shown in figure 2. Knowing the report owners and consumers of the reports gives an opportunity to ask if the reports are still in use, is valid and what purpose they serve. Also, one would be able to answer which HR process does each report support.
A report can be shared with users using their username, a group or a role. Using the action button in the Report Center you can find out who has permissions to run the report as shown in figure 3.

Another way to identify if reports are used and how often it is run, is by using a Report Execution Audit report (for report table and Tiles and Dashboards) or run Site Statistics (for report canvas) that is discussed as below.

**Report Execution Audit Report**

In order to track who has been running Report Table, Tiles and Dashboards at which times you can create a Report Table using the *Report Execution Audit* Domain as shown in figure 4:
Figure 4. Report Execution Audit in Report Table

The results can look like the screenshot below (figure 5):

Figure 5. Results of the Report Execution Audit

Site Statistics

In order to track who has been running Report Canvas at which times you can use the Site Statistics functionality. If you have the required permissions, then Site Statistics can be accessed when you are creating a new or modify an existing Report Canvas via the “Admin” link and select Site Statistics as shown in figure 6.

Figure 6. Site Statistics under Admin tab

When you select the timeframe, run the process and export the results to excel then you can see who has been running which reports at what date / time as shown in figure 7.
Using the actions above will help you in identifying the actual usage of the Reports in the Report Center including Tiles that are used on the Homepage and the Insights Panel. This information will allow you to prioritize the need for each report to be rebuilt in People Analytics Report Story.

Depending on your requirements not all reports can be rebuilt yet when People Analytics Report Story becomes available in Production after the 2005 release. This will depend on the data source and specific usage. For example, Report Canvas type reports using Workforce Analytics or Workforce Planning as a data source cannot yet be created as well as tiles that are used to run on the Homepage, Insights Panel or a mobile device. In the paragraphs below we will explain what to consider when rebuilding each specific Report Type (of the legacy tools) into a Report Story in People Analytics.

5.1.1 Table Reports

Report Table type reports should be the easiest to rebuild in People Analytics Report Story. When you create or modify a Report Table you are guided through a wizard using the following steps (with some domains there are additional steps which will be addressed further down this paragraph)

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Filters: limits the report output based on certain criteria (for example COUNTRY = GBR and EMPLOYEE_TYPE = ‘Employee’)

People Analytics Report Story has far richer functionality compared to the Report Table tool. In this paragraph, we will focus on rebuilding the Report Table in its current state only. In People Analytics Report Story you will not be guided through a wizard. When you create a new Report Story, you will start by building a query (Data source) where you can select the columns, set the People Scope, set the configuration for Date fields and apply filters using the Query Designer.

**General Info:**
In Report Table, you are asked to enter the name of the Report in the first step, General Info. In People Analytics you can assign a name and save the Report Story only when you have finished building your query or at later moment when building the Report.

**Columns:**
In Report Table you are first asked to complete the General Info and People steps before assigning columns and filters to the report. In People Analytics Report Story you will start with building your query by selecting tables and columns and setting filters (optional). You start by selecting a domain and a table from the “Available Data” section and drag the selected table on the Query area. By selecting the “excel”-like icon in the screenshot below (figure 10) you can select the columns that need to be included in the query:

![Figure 10. Query Designer in Report Story](image)

More details on how to use other features like adding related tables, copying tables, setting table filters and using calculated columns are not described in this document and can be found in the user manual [here](#).

**People Scope:**
Compared to Report Table the default People Scope is different in People Analytics Report Story. While in Report Table the default setting is “Team View – Direct reports”, in People Analytics Report Story the default setting is “All Data Included” (= Other Filters in Report – Table). With this setting the People Scope returns all employees which the user is allowed to see based on his Target Population in RBP. Selecting the “Manager” option will give the “Team View – Direct reports” option from Report Table including the option to select additional levels and to include inactive users. All other options are like the Report Table tool as shown in figure 11 and figure 12.
Filters:
In People Analytics Report Story, you can assign Query Filters and Table Filters. In comparison with Report Table type reports, we will only focus on Query Filters. Table Filters will be described in section 5.1.3.2

To create a Query Filter, click on the Filter icon on the Data section of the Query Designer and select “Advanced Filtering” as shown in figure 13. below (Scope Filtering has been described in the previous paragraph “People Scope”):
Figure 13. Advanced Filtering in Query Designer of Report Story

You need to assign a name to the filter and choose the columns you would like to set a filter on. Please note that you can only create a filter for columns of tables that are included in the query. You can also create AND / OR statements as shown in figure 14.

![Figure 14. Set Conditions for Advanced Filter in Report Story](image)

Once you have finished building your query then you can look at the results by clicking on “Preview Query”. Assigning a correct order of columns is not possible when building the query but it is possible only at a later stage of the Report building. Once you are satisfied with the query results then you can click on “Finished” and give the query (Data Source) a name. The next step is to add a widget to the Report Story. People Analytics Report Story provides many types of widgets but as we are describing the comparison with Reports Tables you should add a Table widget as shown in Figure 15. You will see a table with only one column (Count). On the Designer / Builder on the right side of the screen you can select “+Add Measures / Dimensions” to add all or some of the selected columns of the query. The Filters section allows you to set additional filters for this widget only and optionally make those filters editable by the user who is running the report.
Finally save your report by clicking on the Save Button and assign a name to the Report Story. The Report will then be available in the Report Center:

5.1.2 Tiles and Dashboards

Tiles & Dashboards type of reports are graphical presentations to support several HR business processes. A tile shows aggregated data in a chart format (pie, bar or line) with the ability to drill to the details of the chart. For example, the number of open job requisitions per recruiter. A dashboard is a combination of tiles. Tiles can be shown on the homepage, on the insights panel, on a mobile device and in a Dashboard. A tile cannot be run directly from the Report Center.

With People Analytics Report Story we cannot yet present a graphical presentation or table on the Homepage, Insights Panel or a Mobile Device. If that is a requirement then you should keep on using Tiles for the time being.

Using People Analytics, you can create a Report Story showing one or more graphical presentations and include a table with the details to create a Drill to Detail functionality. You can achieve this by creating a chart widget for the graphical presentation and a table widget for the detailed list. When you
use filters and/or input controls and linking the widgets to each other you can simulate the drill to detail effect.

In the example below, you can see a Report Story that has a Table widget, Chart widget and an Input Control.

![Image of Report Story with a table widget, chart widget and an input control](image1.png)

**Figure 17. Report Story with a table widget, chart widget and an input control**

The chart widget and Input Control have a Linked Analysis setting for all widgets on the page as shown in figure 18.

![Image of Linked Analysis in Report Story](image2.png)

**Figure 18. Linked Analysis in Report Story**
With this setting you can either select a bar in the chart and apply a filter (figure 19.) or use the Input Control (Figure 20.) to (de)select recruiters. Both the Chart as well as the Table will update with the selection.

Figure 19. Filter option in the Chart and its effect on the corresponding Table

Figure 20. Using Input Control on the Chart & its effect on the Table
5.1.3  Canvas Reports

Canvas Reports are reports that can be formatted in many different ways to make it fit to company branding and colors. You can create multipage and presentation ready reports using List reports, Aggregated lists and charts. You have the ability to include text and image components and use calculated columns, transpose rows to columns, conditional formatting and do date effective reporting for Employee Central data. This section will explain and provide tips how to migrate a Canvas Report into a Report Story. It will explain the 3 different data sources, Detailed Reporting, Advanced Reporting and Workforce Analytics and Planning as well as how to use the other components and formatting in People Analytics Report Story.

5.1.3.1  Detailed Reporting

Detailed Reporting is the data source or query tool that uses the same reporting schema as the Report Table tool but has an additional feature to create calculated columns. In Detailed Reporting you can create 3 data type calculated columns (Text, Number, Date) and you can include conditional logic using “If Then Else” statements as shown in figure 21.

![Calculated Column Designer](image)

**Figure 21. Detailed Reporting Data Types**

We will address some commonly used calculated columns and how to create those in People Analytics Report Story.

**Age Calculation:**

With a calculated column in Report Canvas you can calculate the age of an employee or the number of years of organization tenure based on the date of birth or original start date respectively. You can calculate the number of days between “Today” and the Date of birth or you can use the “Age” function which returns the age in years.
In People Analytics you can also create calculated columns in the Query Designer. In figure 23, below you can see how you can access the calculated columns and create new, modify existing or delete calculated columns:

Figure 22. Using Calculated Column and Age Function in Report Canvas

To calculate the age in days you can use the “DAYS_BETWEEN” Function to calculate the number of days between “Today” and the date of birth or another date field:

Figure 23. Using Calculated Columns in Report Story
To calculate the age in years you need to create a different calculation as follows:

```
1. DAYS_BETWEEN ([Employment\Job Information\Hire Date], CURRENTDATE())
```

Figure 24. Formula DAYS_BETWEEN in Report Story

This formula returns a rounded number (age in years) as of “Today” but still has 2 decimals (like 23.00). To remove the decimals, you need to add the column to a table widget and use the Table Styling functionality to change from 2 to 0 decimals as shown below (figure 26).

```
2. ROUND ( DATEDIFF ( [Employment\Job Information\Hire Date], CURRENTDATE()) / 365 )
```

Figure 25. Formula DAYS_BETWEEN to calculate years in Report Story

Figure 26. Setting Decimal Places for a column in Table of a Report-Story
Text Concatenation:

With Canvas Reports an often-used calculated column is to concatenate text values into one column. For example, to create a “Full Name” column using the “First Name” and “Last Name” columns. Figure 27 is an example where also a blank space is added between the 2 columns:

![Figure 27. Using CONCAT function for text concatenation](image)

Using IF THEN ELSE Statements:
In Detailed (and Advanced) Reporting you can use logical conditions in a calculated column using an “If Then Else” statement. An example can be to change a code to a more understandable label which make the report easier to read. For example:

IF [Gender] = ‘F’ then ‘Female’ else ‘Male’

Another example is to create categories which you can use in aggerated tables or charts as a dimension. Below is an example of a calculated column (navigation to calculated column is already shown in figure 23.) for the creation of an Age Category in People Analytics Report Story:

![Figure 28. Using Category in Report Story](image)

5.1.3.2 Advanced Reporting

The Advanced Reporting Data source or query tool with Canvas Reports can be used to report on Employee Central, Performance Management, Goals Management and Succession Management. Most of Employee Central data is effective dated. This allows you not to only see employee data as of today but also what the data looked like in the past and if needed in the future. Every time there is a change to employee data a new row of data is added with an effective start and an effective end date.
and the change that was made (for example from Part Time to Full Time or a Salary change). The Advanced Reporting Tool allows you to report on any value (history, current, future) using Date options:

![Figure 29. Using Date Options in Advanced Reporting](image)

In Advanced Reporting there are 5 Date Type options:
- Show all: returns all the rows from the selected table
- Current Date: returns only the row that is active ‘Today’ from the selected table
- As Of Date: returns only the row that is active on the selected “As Of Date” from the selected table
- Date Range (On Start date): returns all rows that have an effective Start Date which falls in the selected Date Range
- Date Range (Validity): returns all rows that are active in the selected Date Range

Date options can be set separately for each table in the query. The default setting is Current Date for all tables.

In People Analytics Report Story, you can also define which rows should be returned for each table using the Time Filter option. The default setting is “Today”. To change this setting, you need to be in the Query Designer and open the Table Actions:
You can then select the Time Filter and make changes. When you Edit the filter then you can choose a fixed date or another Dynamic Date Variable:

When you remove the filter then you will get all rows returned for that table which is the same as “Show All” in the Date options with Advanced Reporting:

You can now also select a Date Range where you can set the Range Type (Dynamic or Fixed), the Granularity (Year, Quarter, Month, Week, Day), the Range Period (this year, previous year or next year), the Range Extensions and the Range Parameters as shown in figure 33.
Additionally, you can define which records need to be returned within the Date Range. The first option as shown in figure 34. is the same as Date Range (Validity) in Advanced Reporting and the second option is the same as Date Range (On Start Date):

![Records Returned in Date Range of Report-Story](image)

### Table Filters:

In Advanced Reporting you can set Table Filters. A table filter only has effect on the selected table where a query filter has effect on all tables in the query. A table filter can be useful if you would like to transpose rows to columns. As an example, when you add the Compensation Table to the query then it could return multiple rows for each employee having one row for each pay component along with multiple pay components. By copying the compensation table and applying a table filter on each instance of the table, you can show one column for each pay component. This will then result in only one row of data per employee.

In the example below you see that you will get multiple rows of data for one employee:
By adding a copy of the Compensation Table and applying a Table Filter on the Pay Component we can transpose the rows to columns:
5.1.3.3 Aggregated Tables

With Report Canvas type reports you can create Pivot Tables or Aggregated Tables using a query from either Detailed or Advanced Reporting. With People Analytics Report Story it is also possible to aggregate data from a Query / Data source and present it in a table. There are two types of Table widgets you can use for pivoting / aggregating data. Aggregated List Table Widget or a Cross Tab Table Widget.

Aggregated List Table:

When adding a Table Widget to your story the default setting is a Non-Aggregated List. You can change this setting to an Aggregated List or a Cross Tab Table (figure 39):
When you select a Non-Aggregated List you can do simple counts only (like a headcount or sum of FTE) by selecting one or multiple measures. You can also select one or multiple Dimensions (like Business Unit and Gender) but the dimensions will only be shown on the rows of the table. You can also set a filter on one or more Dimensions:

![Figure 39. Aggregated Table Structure](image)

Cross-tab Table:

When you need to show dimensions on the columns or both on the rows and columns then you need to use a Crosstab Table. With a Crosstab Table, you can also create and add more complex calculations. In the example below we use a Crosstab Table where we are showing the dimension gender on the columns, the dimension business unit on the rows (figure 42) and created a calculated measure to calculate the average organization tenure (figure 41):

![Figure 40. Selecting Measures & Filters in Non-Aggregated Table](image)
Figure 41. Calculated Measure *Average Organizational Tenure of an Employee*

Using aggregated tables in People Analytics Report Story also gives you more flexibility by showing or hiding dimension names and changing the order of the dimension values. These are known limitations with the Report Canvas Type reports.

Story designer can now enable the improved table experience by checking the “Beta Table” checkbox in the Builder Panel for:

- Smooth scrolling – also when your cursor hovers over the table (no click needed)
- Improved performance of in-cell charts and thresholds
- Ability to specify exact row height or use the predefined Fiori heights (Default, Condensed, Cozy)
- Ability to specify exact column width for non-responsive tables
- Deselect linked analysis members with ESC

In the near future, this “Beta Table” format will be used by default for all tables.

5.1.3.4 Charts
With People Analytics Report Story, there is a large variety of Chart Types available. Working with charts is similar to working with Crosstab Tables where you need to select your measures and dimension(s) and can create and use more complex Calculations. Depending on the chart type, you are presented with different options. In the example below we are showing a vertical stacked bar showing the average organization tenure by Business Unit split by Gender:

**Figure 43. Vertical Stacked Bar (Chart Type) Showing Organization Tenure by Business Unit**

You can also take a look here: [https://www.sapanalytics.cloud/resources-chart-type-guide/](https://www.sapanalytics.cloud/resources-chart-type-guide/)

5.1.3.5 Workforce Analytics and Planning

The Workforce Analytics and Planning Data source is currently not yet available for People Analytics Report Story. Therefore any reports that are currently build using that data source cannot be migrated to Report Story types. For the time being you need to keep on using the Report Canvas type.

5.1.3.6 Report Formatting

Try designing your story using Responsive pages instead of Canvas or Grid pages. Responsive pages allow your story content to re-flow depending on the size of the screen it is being viewed on. This format is also compatible with the mobile apps and if today the mobile is still not available, your responsive pages will be ready when the SuccessFactors Mobile apps supports people analytics report stories. This is shown in figure 44 with different kinds of page types available in Report Story.

**Figure 44. Types of Pages in Report Story (Using Responsive Page Type)**
In other cases, you could also prefer to use a Canvas format if you want to control the page size (figure 45) and the ability to print a document or save a pdf file in a specific format. Sometimes it is better to use the grid page for large tables in order to facilitate the export feature.

![Figure 45. Using Page Size in Report Story](image)

Last, you can create Report template in order to easily initiate a new report – it only deals with format, text, background and picture. You can do it by defining your brand / style and by doing a ‘save as template’. You will be able to apply this template in the format section of the story editor.

![Figure 46. Format section in Report Story Editor](image)

As it is not possible today to save a query and to reuse this query in another document, we would recommend the creation of different templates with not only the design, but with single and simple queries which could be enhanced later. As an example, a document template with Job Info and personal details could be leveraged later to produce the performance report or the compensation report. You could initiate a new report story by copying a template document. Keep in mind that the query definition is stored in each report and if you perform a change in one, it won’t enhance the others.

Multilanguage will be available soon and you will be able to translate the different fixed texts in a story. Data and fields names will be updated from the SuccessFactors configuration (Fields and Pick list).

### 5.2 Report Story Permissions

In order to setup People Analytics Report Story in your tenant, you need the following setup:
• Identity Authentication Service (IAS) and Identity Provider Service (IPS) configured with your SAP SuccessFactors tenant.
• Enable Report Center in your tenant.

5.2.1 Procedure to Enable People Analytics Report Story

1. As a SuccessFactors Admin, go to Admin Center > Upgrade Center.
2. In the Filter By list, select Analytics.
4. Click Upgrade Now, and on the confirmation pop-up click Yes. A message appears, after your upgrade has been successful.

**NOTE:** The user clicking on this Upgrade task will also receive confirmation on upgrade status and next steps. Please ensure to have a valid email assigned to this user prior to running the task.

5. Complete the user sync process using your Identity Provider Service portal.
6. Set up the role-based permissions for various users that you want should have access using the Report Story.

5.2.2 Report Story Permissions

Once the People Analytics, embedded edition is enabled you would also see some new permissions related to it in your RBP as below:

- **Create Report Story:** Allows you to create, edit, delete, share, import, export and duplicate to Report Story reports. You can work with the data from schemas selected for this permission. This is shown in figure 47 as below.

![Figure 47. Report Permissions: Create Report Story](image)
• **Report Story Admin**: Allows you to manage all reports of type Report Story. This permission also enables the "All Reports" tab in Report Center and is shown in figure 48 as below.

![Permission settings](image)

**Figure 48. Manage Dashboards/Reports: Report Story Admin Permissions**

• **Schedule Reports**: Allows you to schedule Report - Story type of reports as shown in figure 49.
5.2.3 **Schema Permissions**

The Create Report Story permission allows you to select the schemas that you can use in a story, but you can access the data from the schemas only after you enable the schema related permissions.

The permission to create Report Story does not provide you access to the data you are trying to report. The Create Report Story permission is not bound by target population, so it simply allows you to use the fields from the selected schemas, while creating a report. However, to access data from a schema, you need to enable the schema specific role-based permissions.

Here is the complete chart (table 1) on Permissions for different modules & what each of them means in People Analytics, embedded edition.

<table>
<thead>
<tr>
<th>Module</th>
<th>Permission Name</th>
<th>Permission Location</th>
<th>Impact on Report Story</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 49. Report Permission: Schedule Reports
<table>
<thead>
<tr>
<th>Module</th>
<th>Control</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>360 Degree Multi-Rater</td>
<td>Data Access: Report - Story</td>
<td>Performance Controls what data users can see when they run a report built using the 360 Degree Multi-rater schema.</td>
</tr>
<tr>
<td>Calibration</td>
<td>Create Report – Story</td>
<td>Reports Permission Controls if a user can create a calibration report. This permission allows you to create a report with the required fields coming from the schema.</td>
</tr>
<tr>
<td>Calibration</td>
<td>Data Access: Report – Story</td>
<td>Calibration Controls what data users can see when they run a report built using the Calibration schema. Allows users to run a report and only see the employee data limited to their target population.</td>
</tr>
<tr>
<td>Compensation Eligibility</td>
<td>Data Access: Report – Story</td>
<td>Compensation and Variable Pay Specify which templates user has access to for reporting, which is further refined by target population.</td>
</tr>
<tr>
<td>and Compensation Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development Goal</td>
<td>Data Access: Report - Story</td>
<td>Career Development Planning Controls what data users can see when they run a report built using the Career Development Planning schema.</td>
</tr>
<tr>
<td>Learning Activity</td>
<td>Data Access: Report - Story</td>
<td>Career Development Planning Allows you to view detailed transcript template and data based on the target population.</td>
</tr>
<tr>
<td>Mentoring</td>
<td>Mentoring Programmes Access Permission</td>
<td>Career Development Planning Allows you to access mentoring programs.</td>
</tr>
<tr>
<td>Mentoring</td>
<td>Manage Mentoring Programmes</td>
<td>Manage Career Development Allows you to manage mentoring programs.</td>
</tr>
<tr>
<td>Onboarding 2.0</td>
<td>Onboarding 2.0 or Offboarding 2.0 Object</td>
<td>Onboarding 2.0 or Offboarding 2.0 Object Permissions Contains permission for all ONB 2.0 business objects like ONB2Process,ONB2ProcessTrigger, Tasks etc.</td>
</tr>
<tr>
<td>Performance Management</td>
<td>Data Access: Report – Story</td>
<td>Performance Controls what data users can see when they run a report built using the Performance schema. Allows to run a report and only see the employee data limited to the target population.</td>
</tr>
<tr>
<td>Succession</td>
<td>Succession Planning Permission</td>
<td>Succession Planners If <strong>Allow succession planners to view successors on org chart nodes/position tile view</strong> is enabled in Admin Center, you can view all status succession nominations and also mapped talent pools.</td>
</tr>
<tr>
<td>Succession</td>
<td></td>
<td>If <strong>Allow succession planners to view successors on org chart nodes/position tile view</strong> is not enabled in Admin Center, you can view pending, removed, rejected, and succeed succession nominations.</td>
</tr>
<tr>
<td>Succession</td>
<td></td>
<td>If <strong>Allow succession planners with recruiting candidate search permissions to nominate external candidates</strong> is enabled, you can view external candidate data as well.</td>
</tr>
</tbody>
</table>
Nomination History is always available for those visible nominees.

If **Allow succession planners to view successors on org chart nodes/position tile view** is enabled in Admin Center, you can view all status succession nominations and also mapped talent pools.

If **Allow succession planners to view successors on org chart nodes/position tile view** is not enabled in Admin Center, you can view pending, removed, rejected, and succeed succession nominations.

If **Allow succession planners with recruiting candidate search permissions to nominate external candidates** is enabled, you can view external candidate data as well. Nomination History is always available for those visible nominees.

You can view only approved succession nominations and also mapped talent pools.

Nomination History is always available for those visible nominees.

If **Apply target population to Talent Pool Nominations Permissions.** is enabled in Admin Center, you can view successors for permitted talent pools, following user target population configured in RBP.

If **Apply target population to Talent Pool Nominations Permissions.** is disabled in Admin Center, you can view successors for permitted talent pools. Not restricted to user target population even configured.

Nomination History is always available for those visible nominees.

If you are using MDF position-based nomination method, Succession follows the target population of Miscellaneous Permissions.

Defines the login data of the target population.

**Table 1. Schema Permissions for Different SAP SuccessFactors Modules**

Here is the example of “Data Access” permission in RBP under Manage User used for Login Data Permission as shown in figure 50.
5.3 Query Designer & Advanced Filters

5.3.1 Selecting Data from Left Outer Join and Inner Join

In query designer, data elements can be joined in two different ways. Based on the requirement, Query creator can select the type of join.

- **All Primary Data (Left Outer Join):** This is equivalent to Left Outer Join. All the rows from the left table are returned irrespective of whether there is a match in the right-side table. If a matching id is found in the right, it is returned or else a null is appended. This is default join type when two tables are joined as shown in figure 51.

![Figure 51. Left Outer Join Dataset](image)
• **Intersecting Data (Inner Join):** Returns all the data that has a match on the join condition from both sides of the table as shown in figure 52.

![Figure 52. Inner Join Dataset](image)

With your mouse on top of the connection, you can understand the type of join between the 2 data elements and you can change the type of join as shown in figure 53.

![Figure 53. Available Join Types in Report Story](image)

### 5.3.2 Advanced Filters at Table level and Query level

Query designer supports advanced filtering that can be created at the table and query level. It affects in the following ways:

- **Table level:** Filtering will be limited to the specific tables on which filters are applied. Columns on which filters can be applied will be limited to columns present in the table.
- **Query level:** Provide the ability to apply filters across the query. Filters can be applied on any column from any of the table included in the query.
5.3.3 Using Input Parameter in Advanced Filters

Input parameter allows user to parameterize user input for a filter. For example, while preview or finishing query, user will be able to input filter values rather than predefining in the filter definition. This allows the flexibility of handling multiple filter conditions without making modifications to the filter definition.

As an example, if a user wants to limit the data to Analyst job title in one instance and in some other time wants to limit the data to job title Manager, advanced filters with input control can be used. This prevents the user to make any changes to the filter definition in each case.

An input parameter must exist prior to using it in advanced filters. To create an input parameter, follow below steps.

1. Click on Create Input Parameter icon as shown below (figure 54)

![Figure 54. Input Parameter in Report Story](image)

2. In the dialog box define parameter name, value type (String, Integer etc.) and default value (figure 55).
3. Create advanced filter either on table or query. In the advanced filter dialog, select filter type as Input Parameter. System will list all the input parameter exist in the query (Figure 56). Select required parameter from the available list.

4. User input will be asked when previewing/finishing the query and upon inputting the value filter will be applied.
5.3.4 Aggregates Types in Query Designer

Query designer allows user to define the aggregation type that should be applied on the measure when data is aggregated in story designer. To define aggregation type on measures, follow the below steps.

1. Navigate to Column Overview dialog as shown in figure 58.
2. In Column Overview window user can define the aggregation type for each of the measures included in the query. It is possible to select aggregation type on user selected measures and calculated columns (measure) as shown in figure 59.

![Figure 59. Column Overview and Aggregate Types in Report Story](image)

Following are the available aggregation types in Report Story and their meaning.

- **MIN**: When data is aggregated in story designer (users aggregated lists or charts) MIN of measure is considered. E.g. The data source includes Job Title(dimension) and Salary (measure), when an aggregated list in visualized MIN of (Salary) will be selected.
- **MAX**: When data is aggregated in story designer (users aggregated lists or charts) MAX of measure is considered. E.g. The data source includes Job Title(dimension) and Salary (measure), when an aggregated list in visualized MAX of (Salary) will be selected.
- **SUM**: When data is aggregated in story designer (used aggregated lists or charts) SUM of measure is considered. E.g. The data source includes Job Title(dimension) and Salary (measure), when an aggregated list in visualized SUM of (Salary) will be selected.
- **NONE**: Default aggregation (SUM) is considered

### 5.4 Localization Considerations

In Employee Central, some dimensions are only relevant for specific countries or based on the configuration, the same field could have a different format between 2 countries.

Employee Central manages those fields in localized tables, and we have by example (figure 60):
In order to implement a specific report per country, it is possible to combine in one report information coming from different localized tables by concatenating same kind of fields together in the query panel.

1. Identify the countries implemented in your EC and connect the localized tables with the root table along with keeping an outer join between those tables as shown in figure 61.

2. Rename the objects in the field editor as shown in figure 62.
3. Create a calculated column with the help of the CONCAT() function as shown in figure 63. This works because one employment is only defined in one localized table.

4. Consume the new concatenated field in your report story as shown below in figure 64.
5.5 Guardrails

Below are expected actions from the user on hitting threshold while using report story artefacts:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Expected Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum parallel Executions of queries per Customer instance (Company ID)</td>
<td>Currently there is a restriction of 100 queries that can execute in parallel in a customer instance. On crossing the limit report execution will be blocked. Users should wait for couple of minutes and rerun the report so that parallely running queries are less than 100.</td>
</tr>
</tbody>
</table>
| Maximum cell (rows * columns) limit per query                            | There is an upper limit of 1 million cells that a query can retrieve. If the number of cells in report exceeds users can follow multiple ways to limit the data retrieved in the query.  
  1. Use different permission model to limit the data  
  2. Use static and advanced filters  
  3. Modify target group of the report using scope filter |
| Maximum number of columns allowed in a story                             | There is an upper limit of 30 columns than can be selected in a query. On crossing the limit users will be warned in query designer. Users are advised to limit the number of columns in a query to less than 30 for optimal performance. |
| Maximum number of tables allowed in a story                              | There is an upper limit of 30 tables than can be joined a query. Users are advised to limit the number of tables in a query to less than 30 always. |

Figure 6.4. Report Story Output Using Calculated Columns for Different Countries
5.6 Explorer Mode

With the new Explorer Mode you see a faceted view of your data, which you can manipulate to generate charts for your story pages. It is accessed on a per chart basis and can be chosen and configured based on the requirements of that particular report, so this does not need to be available for every single component. This is shown in figure 65.

Figure 65. Open Explorer in Report Story

This provides more flexibility so the end user can jump into the detail of the component, they can customise the visual of the component for example changing charts and also explore the data across a number of different dimensions. When you select measures and dimensions in the upper pane, the visualization in the lower pane updates in real time. You can filter dimensions by selecting individual members, and the visualization changes immediately to show you the filtered result. This allows the users to filter down to specific information to search for some particular data element that they may be interested in. This is shown in the figure 66 below.
The good thing about this particular view is that it allows end users flexibility of what they want to see, so you may have one standard report for many users each who has unique requirements in terms of which fields they want to see in the report by including the different fields here in the explorer view. You give the capability to your end users to customise the view for their own purposes, their customization will be relevant to only them and won't impact the report for other users who is accessing it. This help save a lot of time and effort as your report design team would get many request from various people within the organization to customise a report just with one or two fields here and there.

Some actions specific to tables in planning models are not supported in the Explorer; for example, allocation, version management, and forecasting.

5.7 Do’s & Don’ts of Report Center

5.7.1 Do’s

5.7.1.1 Using Labels in Reports

Adding labels and assigning them to reports in Report Center allows you to group the reports in a folder-like structure that you can access under the Labels tab of the Report Center page.

- Go to Report Center, select the report you would like to create/add a label to and click on Label As under the action dropdown as shown in figure 67 below.
• The Manage Label dialog should then open as shown in figure 68. From this menu you can name a label, nest a label inside another, set the label to public/private (Only reporting admins can create a public label, or convert a private label into a public label) or select the colour of a label.

**Figure 68. Manage Labels in Report Center**

**Note:** Labels are not case-sensitive. For example, the labels Retail and retail are considered as one label. You can't create more than one public/private label with the same name. Private labels with the same name can exist in a tenant, provided that the labels are not created by the same user.

5.7.1.2 Import and Export of Report Story

The current best practice is to first build story reports in your test instance and then move them to the production instance once completed using the Import and Export option in Report Center.

• Using the Export option on the Action menu, or the Export icon on the Report Center menu bar, you can export one or more Report Story types of reports and store them as an ACN file on your local drive.
• Using the Import button on the Report Center menu bar, you can import Report Story type of reports into your instance, using an ACN file.

The ACN file format is used for storing Report Story type of reports, and it's native to the application. You can import stories if you have the Create Report Story permission. Whereas you can export stories, if any of the following conditions are met:

• You're the author of the story
• A story has been shared with you, and you have the rights to edit the story.
• You've been assigned the Report - Story Admin permission.

5.7.1.3 Schedule Reports

For Non EC customers to ensure you can schedule reports in Report Center, Enable Generic Objects — requires “Enable the Attachment Manager” in company settings of provisioning needs to be enabled as shown in figure 69 below.

![Figure 69. Provisioning Settings of Company Settings to Schedule Reports](image)

Once the feature is enabled from provisioning the New Schedule option is available and can be used for Report scheduling. If you do not have access to partner provisioning reach out to SAP Cloud Support.

5.7.1.4 Exporting Reports Permissions

Below are the different Report permissions needed to export various kinds of report definitions from the Report Center:

• To export a Report Table, you must be the author of the report and the Create Report permission must be enabled for you.
• To export a Report Canvas, the Report Canvas Designer Admin permission must be enabled for you or you must be the author of the report and the Report Canvas Designer permission must be enabled for you.
• To export Tiles and Dashboards, the Analytics Tiles and Dashboards permission must be enabled for you.
• To export a Report Story, you must be able to edit the report. It is shown in figure 70.

![Figure 70. Export in Action Menu of Report Center](image)
5.7.1.5 Setting Analytics Default Autocreate Role

After ORD is activated in provisioning, a default user have to be enabled in the Analytics backend to allow all new user to be created automatically when they access the canvas (ORD).

The first user to access Analytics will automatically receive the admin role. Implementation Partner. (Please ensure this is a BizX admin user) This user can open a new Report Canvas from Report Centre, and from the page editor select Admin Roles Maintenance, select the role and from the Tools dropdown make it the default role.

Figure 71. Edit User Details

Note that: Only SAP Cloud Support can enable the default Role in Analytics backend. Customers have to raise an incident and request Default Role to be set as Report Consumer.

5.7.1.6 Include Quick link for Report Center

Quick links can be added to the Home Page in the Welcome Portlet, the Company Resources Page within the SAP SuccessFactors Application Example Deep links: (from my Internal SalesDemo environment).

- SP-Initiated Login
  URL: https://salesdemo.successfactors.eu/sf/inform?landingPage=ADVANCEDREPORTING()&company=XXXXXX&loginMethod=SSO
- Replace 'salesdemo.successfactors.eu' with your own Datacenter domain and 'XXXXXX' with your specific Company ID
5.7.1.7  Sharing Report in Report Center

You can assign the *Share Reports to Groups & Roles* report permission as shown in figure 72 with the following steps:

- From Admin Centre - Manage Permission Roles then select the desired role from the list
- Select Permission then Manage Dashboards/Reports
- Make sure the Share Reports to Groups & Roles option is selected

![Permission settings](image1)

**Figure 72. Share Reports to Groups & Roles Permission Settings**

- The Groups and Role option will then be available when you select the share report function via Report Center as shown in figure 73.

![Report Center](image2)

**Figure 73. Share Reports to User, Group or a Role**
5.7.2 **Don'ts**

5.7.2.1 *User Unable to Create / Access ‘Report Canvas’ reports in Report Center*

If two users have the same UserID in BizX even if with different letter casing, the second user will never be able to create / access ‘Report Canvas’ reports in Report Center. The second user's UserID has to be changed.

5.7.2.2 *Reports are Missing*

Reports are missing in report center for certain users and is caused due to applied filters as shown in figure 74.

- Edit the filters by clicking the filter icon
- Either add the desired report types (top left) or clear the filter all together (top right)
- Click 'Go'

![Figure 74. Filter Option in Report Center](image)

5.7.2.3 *Search Bar is Missing in Report Center*

The Search functionality for the Report Center is disabled in Admin Center

- You can check if in Admin Center > Reporting & Analytics > Manage Report Center the Enable Report Center Search Functionality is switched on.
- If not, enable it and then click on Save. When you navigate back to the Report Center, you should be able to see the search bar.

Notes:

- That switch is usually enabled along with *Use SOLR to load Report Center*
- If you cannot find the Manage Report Center link in Admin Center, you will have to permission it to the RBP role from Manage Permission Roles > Administrator Permissions > Manage Dashboard/Reports > Report Center
5.7.2.4  Errors Fetching Reports in Report Center

While accessing the Report Center sometimes an error like **Error occurred while fetching reports!** is displayed as shown in figure 75

![Figure 75. Error in Report Center](image)

- Go to Upgrade Centre
- Click on View Recently Completed Upgrades
- Search for Report Centre
- Click on Undo
- Log out, wait for few minutes, clear the cache and log in SuccessFactors
- Go to Upgrade Centre > Enable the Report Center upgrade again (this will upgrade the instance with the proper configuration)
- Logout from application and clear your browser cache
- Wait for few minutes and Open the Report Center page and check if the reports are listing in report listing page without any error

5.7.2.5  Missing Reports in Report Center

Follow the below mentioned steps to check and take action for missing reports in the report center.

- Select Admin Centre
- Click on Reporting & Analytics icon & Select “Sync Report Center Search” (figure 76)
Fill out the Job Name – Priority & Configuration then select Start Sync (figure 77).

- Priority used by the Job scheduler to determine the position of the job in the queue.

Depending on the workload involved and priority selected it may take up to 24h for the job to be completed.

You can check the progress of the Sync Job only in provisioning via Monitor Jobs and Index Report Search Repository job type.
5.7.2.6  Error While Deleting Dashboards from the Report Center

- Attempt to delete the Dashboard. The following error appears "An error occurred while deleting the report" as shown in figure 78.

![Figure 78. Error while deleting Dashboard from the Report Center](image)

- Admin Centre > Manage Dashboards > Manage Tile-Based Dashboards
- Identify the Dashboard you need to delete then select the Delete Icon and confirm
- The Dashboard will not be displayed in the Report Center anymore

5.7.2.7  Handling FTP error login has no write permission

FTP Test Connection in Report Centre is showing the error "login has no write permission" as seen in figure 79 in Report Center, Schedule Job Provisioning and Report Distributor.

![Figure 79. FTP Test Connection](image)

- Scenario 1: The SAP SuccessFactors outgoing Public IP address is blocked by your environment. You need to whitelist the SAP SuccessFactors outgoing Public IP address to allow the connection into your environment.
- Scenario 2: The login user does not have permission to the FTP root folder
  1. You can configure the FTP path to "incoming"
  2. Click on Test File Put Permission
  3. It will be successful
  4. The Test Connection button may still not work. However, when you run the scheduled job it will work.

See KBA 2580876 - FTP error login has no write permission for further information.
6 REFERENCES

SAP Help Portal
- Implementation Guide
  SAP SuccessFactors People Analytics, Embedded Edition

SAP Analytics Cloud
- https://www.sapanalytcs.cloud/learning/
- https://www.sapanalytcs.cloud/resources-performance-best-practices/