# **Reporting Services**

# SYSPRO 8

# Reference Guide

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### **Reporting Services**

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# **Reporting Services**

# Exploring

## Where it fits in?

Our state of the art **Reporting Services** solution provides an intuitive web interface for designing and amending reports. By implementing a cloud first, server only solution, we are increasing the scalability and making it easier to design and maintain reports with a simpler deployment.

#### Benefits

- Easier to design and maintain reports.
- Simple deployment as a server only solution.
- Intuitive interface for designing and amending reports.

## Navigation

The programs related to this feature are accessed from the **Program List** of the SYSPRO menu:

Program List > SYSPRO Reporting Services

## Terminology Third-party reports

A third-party report in SYSPRO typically refers to a custom report or document that was developed by an external consultant, partner, or independent developer. These are reports that are not part of the <u>standard reports</u> that are included in the SYSPRO product.



# Starting

## Prerequisites

To use this feature, these components must be installed in the following order using the **SYSPRO Installer Application**:

- 1. SYSPRO Reporting Services
- 2. SYSPRO Application Gateway Service service
- 3. SYSPRO Reporting API

 When installing theSYSPRO Application Gateway Service SYSPRO Reporting APland you are prompted to supply a valid gateway endpoint and authentication key before you can continue installing SYSPRO 8 2025.

 The SYSPRO Reporting API and the services required to run it can be located on different machines.

To use this feature, the following setup option(s) must be enabled/defined:

Setup Options > System Setup > SQL

- Company database connection
  - Company database authentication
  - SQL Server name
- SQL Server administrative information
  - Administrator login
  - Administrator login password
- SQL Server standard user information
  - Standard login
  - Standard login password

The administrative and standard SQL user must have access to create a database and tables within the database, as well as access to read and write data.

SRS reporting database connection



The SRS reporting database connectionis strictly used for the data that reports will use and will not be consumed by the SYSPRO Reporting API or the SYSPRO Reporting Services.



- SRS authentication
  - SRS SQL Server name
  - SRS login
  - SRS login password

Select **Test SQL connection** to verify that the connection to the SYSPRO Reporting Services database is successful.

#### Setup Options > System Setup > Legacy Reporting

Maximum rows per report

#### Setup Options > System Setup > E.Net Service Details

- Server name
- SOAP port
- REST port

#### Setup Options > System Setup > Reporting

Reporting configuration

This must be defined as **Server-side reporting using SQL**.

Reporting service API endpoint

The endpoint is created automatically by the SYSPRO Application Gateway Service service.

#### Setup Options > System Setup > Connectivity

- Application Gateway service settings
  - Use Application Gateway service
  - Application Gateway service endpoint
  - Authentication key

Select **Test connection** to verify that the connection to the **SYSPRO Application Gateway Service** is successful.

## Licensing

To use this feature, the following module(s) must be installed according to the terms of your software license agreement:

SYSPRO Reporting Services



## Security

You can secure this feature by implementing a range of controls against the affected programs. Although not all these controls are applicable to each feature, they include the following:

- You restrict operator access to *activities* within a program using the **Operator** Maintenance program.
- You can restrict operator access to the *fields* within a program (configured using the Operator Maintenance program).
- You can restrict operator access to *functions* within a program using passwords (configured using the **Password Definition** program). When defined, the password must be entered before you can access the function.
- You can restrict access to the eSignature *transactions* within a program at operator, group, role or company level (configured using the Electronic Signature Configuration Setup program). Electronic Signatures provide security access, transaction logging and event triggering that gives you greater control over your system changes.
- You can restrict operator access to *programs* by assigning them to groups and applying access control against the group (configured using the **Operator Groups** program).
- You can restrict operator access to *programs* by assigning them to roles and applying access control against the role (configured using the **Role Management** program).

## **Restrictions and Limits**

 Batch preview is not supported when printing a batch of documents, as this would open multiple preview panes.



# Solving

System messages Error messages Output limit of 500 000 rows exceeded



#### Cause

A default limitation of 500 000 line items was implemented to address the inconsistency in processing large reports with extensive data, which previously resulted in unpredictable behavior.

#### Solution

The limit can be configured at the **MAXIMUM ROWS PER REPORT** setup option (*Setup Options > System Setup > Legacy Reporting*).

#### Error occurred while sending the request



#### Cause

This message is displayed if the SYSPRO Reporting API is not running.

Solution

Start the SYSPRO Reporting API service or check the event viewer for the reason and resolve.

OK

#### Informational messages This format is linked to an SRS document with a legacy template

**▼** X

This format is linked to an SRS Document with a legacy template. You will have to select a valid SRS Document before you can print using this format.

#### Cause

This message is displayed if you attempt printing a document that is linked to a legacy template.

#### Solution

Link the document to a template supported by the SYSPRO Reporting Services engine using the **Maintain SRS Document Templates**<sup>1</sup> program.

#### <sup>1</sup>Program: SRSPM2



#### FAQS Creating Reports Can all operators create reports?

Permission to create a new SRS report is determined by the **REPORT DESIGNER** setup option against the operator.

You can give an operator permission to design new SRS reports by following these steps:

- 1. Access the **Operator Maintenance** program and select the operator.
- 2. Select the **Options** tab and navigate to the **Access** section.
- 3. Enable the **REPORT DESIGNER** option.

# How can I create a new report in SYSPRO Web UI (Avanti)or on SYSPRO Desktop?

You can create a new report in **SYSPRO Web UI (Avanti)** or **SYSPRO Desktop**.

To create a new report in SYSPRO Desktop follow the below steps

- 1. Open SYSPRO Reporting Services (Program List > SYSPRO Reporting Services).
- 2. Selecting the **File** option at the top of the page.
- 3. Select New SRS Report and follow the steps seen in section 3 below, to create your report.

To create a new report in **SYSPRO Web UI (Avanti)** follow the below steps:

- 1. Select the hamburger menu icon to the top left of the page.
- 2. Within the hamburger menu navigate to **Reporting Services** > **Setup** > **New Report**.

A **New Report** popup will be displayed.

- 3. Under Action select, Create new report.
- 4. Under **Report Type** or **Report based on** select your preferred option between:
  - Standard(Business Object in Desktop)

This refers to reports that are included by default in the SYSPRO package, for example the **Credit Management** or the **Inventory Journal Report**. These reports are based off business objects using the predefined schema as a dataset.

Custom Datasource

This refers to reports imported from an external source such as 3rd party or designed in SYSPRO using a data management tool (SQL, Excel, Oracle) as a database connection.

GL Financial Report



- This refers to a report previously created using the GL Financial Report Writer reports in SRSGL Financial Report Writer . You can use SYSPRO Reporting Services to convert such a report into a more flexible and dynamic format.
- 5. Once you've finished entering your requirements and details for the report, select **Save**.

The **Report Designer** will automatically be displayed.

#### How do I connect to a datasource before generating a data set?

When creating a report, you will need to connect to a valid data source before generating a dataset into the **Report Designer** canvas. Doing so, is important when creating reports from a **Custom Datasource**.

Follow these steps to generate a dataset:

- 1. Connecting to the database and adding a data set:
  - a. Select the **Data** panel icon (found to the right of the **Properties** icon).



You'll automatically be connected to the database that you are logged into. Your connection will be displayed under **Data Sources**.

- b. Select the +Add button under Data Sets and choose your data from the options provided.
- 2. An Edit Data Set popup will be displayed.
  - a. Add the query that will be used to interrogate your data, to the **Query** section.

| For example:                                     |
|--|
| An example of a query to select data from a BAQ: |
| "select * from your_baqs_name"                   |

b. Select Validate, followed by OK.

The selected data set will be displayed under Data Sets .

- 3. Adding Data to the Canvas.
  - a. Select a format to add the data (such as a table), which can be selected from the **Control Box** on the left and dragged into the canvas.

Select an area of the table to add a field from your dataset to the selected area.

b. Alternatively you can select the data directly from the **Data Sets** section on the right side of the canvas.

Select the **Select Fields** icon found to the right of the data set. This will convert every field in your data set to a checkbox item.



- c. Once you've checked your intended fields, drag your dataset into the canvas.A table will be generated displaying your selected fields.
- d. Select **Save** and **Preview** to view your report.



#### Working with Data in the Report Designer What are the main sections of the Report Designer?

- On the left of the page, you'll see a Control Toolbox which can be used to add various items including textboxes, images and tables.
- In the center of the page is the **Canvas**, where your data can be placed and updated.
- On the right-hand side of the page is the **Properties** section, which includes **Advanced Properties** where the layout, preview settings and data can be edited.

#### How can I edit and update the data?

Once you've generated a dataset into the **Report Designer** there are many methods to edit and update it.

- To add details or input to your data, select a field in the canvas and update it as required.
- You can change the font size, put in bold, adjust the alignment, save or preview your work, using the **toolbar** at the top of the page.
- To move columns in a table, select a column and drag it to the intended location
- You can further format your data using the **Properties** tab. Select the fields in your canvas that you wish to format before selecting the **Properties** tab. Using the **Properties** tab you can edit your table's borders, background, and features of your selected text.

#### What's the difference between a parameter and a filter?

- Parameters define rules and criteria for selecting specific data. For instance, a parameter might specify that data related to a particular type of customer will be selected from a dataset.
- Filters apply the rules of parameter to a selected destination.

#### How do I use the Expression Editor to learn about functions?

You can search any function in the expression editor and the syntax or formula will be displayed, as well as a brief description of the function.

#### FOR EXAMPLE:

Syntax: Max(<Values>)

Description: Returns the maximum non-null value from the specified expression.

Follow these steps to use the **Expression Editor**:

- 1. With the **Report Designer** open, select a field in the **canvas** where you intend to use a function.
- 2. Navigate to the **Properties** tab on the right of the page.
- 3. Under **Common** select the **data binding** button (displayed as a gray square to the right of the **Value** field).
- 4. The **Expression Editor** will be displayed.

Select the **Search** field and enter the name of the function you intend to use.

The function's **syntax** and **description** will be displayed.

- 5. Double-click your intended function displayed under **Functions**.
- 6. Enter the required data into the fields displayed under **Expression**.
- 7. Select **Save** and **Preview** your report.

#### How do I use the lookup function?

The lookup function in SYSPRO requires a field from your source and a field from your destination to match the two. Lookups are useful for transferring data from one dataset, to be displayed in another.

Follow these steps to use the lookup function:

1. With the **Report Designer** open, select a field in the canvas where you intend to perform the lookup.

2. Navigate to the **Properties** tab on the right of the page.

3. Under **Common** select the **data binding** button (displayed as a gray square to the right of the **Value** field).

4. The **Expression Editor** will be displayed. Select the **Search** field and enter **lookup**. The lookup function's syntax and description will be displayed.

5. Double-click the **Lookup** button displayed under **Functions**. The lookup function will be displayed under **Expression**.

6. Enter your intended data into the fields displayed under **Expression**.

7. Select **Save** and **Preview** your report.



#### How can I add a custom form field to a report?

1. Right-click on the report in the **Program List** and select **Design Report**.

The Report Designer will be displayed.

This option only applies to *SYSPRO Desktop* and will be visible if your operator is set up to be a report designer.

In *SYSPRO Desktop* this feature is found on the **Report Form**, using the gear on the top right corner.

- 2. Select the **ReportBody** tab to change the information in the body of the report.
- 3. Add a secondary data source to the report:
  - a. Select **Data** to display the data panel and view the data sets and available fields.
  - b. If the required data set is not displayed, select **Add** in the **Data** panel and select the data source to be used for the new dataset.

The **Edit Data Set** widow is displayed.

- c. Add a name for the data set in the **Name** field of the **General** section.
- d. Enter the query statement in the **Query** field.
- e. Select **Validate** to validate the query statement.
- f. Select OK.

The custom form fields will be displayed in the Data panel below the data set.

- 4. If a secondary data set is used, you must use a lookup function to link the secondary data set.
  - a. Select **Properties** gear to view the Textbox panel.
  - b. At the Value field select the Data Binding option and then select the Expression editor.
    The Common Value window is displayed.
  - c. Select the Lookup function from the **Functions** drop-down.

The function will be displayed in the **Expression** box.

5. Save your changes.

Data sources are automatically created for all companies in the SysproAdmin table.

#### How do I group data?

Grouping data refers to creating hierarchies within your selected information.

#### FOR EXAMPLE:

You may wish to create a view of your business' branches, customers per branch, and the sales value per customer. In this case, you would group your data by branch, then by customer, then by sales values.

To group your data:

- 1. With the **Report Designer** open, select the field in your canvas that you wish to use as your data heading (grouping) and select the **Data** panel to the right of the canvas.
- 2. A handle titled **Groups** will be displayed. This handle can be used to manage the hierarchy of your groupings.
- 3. Select the field you intend to group your data with, from your data set.

Drag the field into the handle, to group the data within your table. Doing so will automatically create a group heading and group footer.

4. Select **Save** and **Preview** your report.

The group heading row can be used to insert titles for each field per grouping, while the footer row can be used to create totals for each column.

When adding a field to the group footer, the field will automatically aggregate the total value of the field in the grouping. For example, if a "sales value" field is added to the footer, the sum of the sales value for that grouping will automatically be displayed.

#### How do I create a nested table?

A nested table is a table within a table. Nested tables can be used to transport entire tables or grids from one dataset to another.

With the **Report Designer**open, ensure that both the **table you wish to nest** and the **table that will contain the nested data** are displayed on the canvas.

Follow these steps to create a nested table:

- 1. Select the table you wish to nest.
- 2. Drag the selected table into a field (or several merged fields) of the table you intend to nest it in.
- 3. Filter the nested table's data:



- a. Select the cells of the nested table before navigating to the **Properties** tab to the right of the canvas.
- b. Navigate to the **Filters** field under **Data** and select **+Add...**.
- c. The **Filters** section will be displayed.

Select the + Add... button to create a filter.

- d. Add the criterion to ensure it filters the required data from your intended data-source into your nested table.
- 4. Save and Preview your report.

#### How can I use layers to create a watermark?

Watermarks can be created in SYSPRO without using layers. However creating a watermark using layers, will ensure you have greater control over which reports the watermark will appear in. 1. Follow these steps to create layers within your report:

- a. Launch the **Report Designer** and select the **Report Toolbox** bar on the left of the page.
- b. Select the **Layers** function.

By default, there is only one layer per page.

Optional: For ease of use, select the "**Hide Layer**" icon to hide the default layer while adding the watermark.

c. Select the **+ Add Layer** button to create **Layer1**.

Using layers you can select which **Target Device** or type of report the layer will be displayed on or left off.

With the Layer selected, navigate to the **Layer** tab under **Properties**. Under **Target Device** you can toggle the option to display the selected layer when previewed on **Screen**, used as an **Export** or when printed on **Paper**.

- 2. Follow these steps to create a watermark on your report:
  - a. With Layer1 selected, add the item that will contain your watermark to the canvas.

This container could be an image, textbox, or any option of your choice.

- b. Select the container and navigate to the tab (the tab name depends on the selected container, e.g. Textbox if you have selected a textbox container) under **Properties**.
- c. Select Layer1 under Layer Name of the Layout section.



- d. To push your watermark to be displayed behind the contents of your report, select the **Z**-**index** under **Layout** and update the value to **0**.
- e. Select the container in the canvas and add your intended watermark or message.
- f. Resize and center the container to ensure it displays as required in your report.
- g. Unhide your default layer.
- h. Save and Preview your report and ensure your watermark displays as intended.

#### How do I create a drilled through report?

Drilling through refers to a report, in which each linked section leads to a separate child report, that does not necessarily maintain the format of the initial report (the parent report).

Follow these steps to use the jump-to feature to create a drilled through report:

1. Using the Jump-to functionality.

- a. Launch the **Report Designer** .
- b. Select the item in the canvas (your intended section of a plot, table, graph etc.) and navigate to the **Properties**. Under **Properties**, the **Plot** tab will be displayed.
- c. Under the **Action** section of **Plot**, select the **Type** field and choose what type of destination you intend for your report to lead to.

The options available in the drop-down:

- Jump to Report
- Jump to Bookmark
- Jump to URL.
- d. Depending on your selection, a new field will be displayed under **Type**. Select the exact destination you wish your report to link to, such as a specific URL, report, or bookmark.
- e. You can add a parameter to parse your data into the linked report.

Select the **+ Add** button displayed in the **Parameters** field in the **Action** section, before adding the details of the parameter.

f. Save the report.

2. Creating a filter for the child report.

To ensure that the jump-to reflects the section of the data that you intend, you may need to add a corresponding filter to the child report.

- a. Open the child report and display it in the **Report Designer**.
- b. Navigate to the **Data** tab and select **Add +** under **Parameters**.
- c. Select the newly created parameter and enter your intended details.



- d. Select the entire table or the portion you wish to filter before selecting the **Properties** tab to the right of the canvas.
- e. Under **Tablix** the **Data** tab will be displayed. Select **+ Add...** next to the **Filters** field.
- f. Add the details to the filter.
- g. Save the report.
- 3. Using the drilled through report.
  - a. Navigate back to the parent report.
  - b. Select the **Preview** icon and test the functionality of the jump-to features you've added.



#### Printing and Exporting Reports How can I import report templates?

You can use the **Import** function that is displayed on the toolbar of the **SRS Document Templates Maintenance<sup>1</sup>** program.

This option is only available to administrators and may not displayed due to security limitations. You can define the group access as **Administrator** to use this option.

If a report has been exported from **SYSPRO Reporting Services**, using the **Export report configuration** function, the files will reside in a zip file which can then be imported using the **Import report configuration** function. Doing so, will import the template as well as a corresponding control file and form. If the file that needs to be imported is an rdlx template, it can be imported using the Import Templates function below.

#### How do I export a report from the SRS Viewer?

1. With the **SRS Viewer** open and displaying the report you wish to export, select the **Export** icon.

The **Export** tab will be displayed to you.

When exporting a report from the **SRS Viewer**, you'll be able to use the **Advanced Settings** of the export function.

Select the **Advanced Settings** checkbox under the **Export** tab to view the full package of export features and options.

2. Select your intended format (such as PDF) and any other options of your choice before selecting the **Export** button.

Doing so, will create your report and send it to the downloads folder of your device.

#### How do I export a report directly from SYSPRO Reporting Services?

#### With SYSPRO Reporting Services open:

- 1. Select the report you wish to export from **Available Reports**.
- 2. In the pop-up window, select the **Export Report** checkbox.

Next to the checkbox is the **Export Option**s button.

<sup>1</sup>Program: SRSPMT



The options available in **Export Options** are not as extensive as those available when previewing a report in the SYSPRO Viewer.

3. Select the **Process** button, once you've finalized your selections.

#### How do I send a report to the queue?

Printing directly can be a time-consuming process. To save time, you can send your report to the queue to be printed, which enables you to keep working in SYSPRO while your report is printed in the background.

To send a report to the queue using **SYSPRO Desktop**, follow the below steps:

With SYSPRO Reporting Servicesopen:

- 1. Select the report you wish to print from **Available Reports**.
- 2. Select the **Output Options** tab before **de**selecting **Preview Report**.
- 3. After deselecting **Preview Report** select **Process**.

Doing so will send the report to the queue.

4. To view the report in the queue navigate to SYSPRO before selecting the **Report Queue** icon.

To send a report to the queue using **SYSPRO Web UI (Avanti)** follow the below steps:

- 1. Select your intended report either through a tile or through the hamburger menu.
- 2. Select the **Add to Queue** icon.
- 3. To view the report in the queue navigate to SYSPRO before selecting the **Report Queue** icon.

#### Where are the printing jobs for the SYSPRO Reporting Services saved?

The information is saved in the Jobs and ScheduledJobs tables within the SysproReportingService database.



# Using Process Installation and Configuration SYSPRO REPORTING SERVICE INSTALLATION & CONFIGURATION PROCESS Install SYSPRO Reporting service 1 Installer Install SYSPRO Application Gateway service Install SYSPRO Reporting API SQL – Company database connection Setup SQL – SRS reporting database connection 2 E.Net service details Options Reporting – Reporting configuration

- 1. Install the SYSPRO Reporting Services engine.
  - a. Install the SYSPRO Reporting Server 8.00.298
  - b. Review the following product parameters:
    - SQL Server connection string

#### FOR EXAMPLE:

Data Source=SQLSERVER;User

 ${\sf ID} = {\sf user}; {\sf Password} = {\sf password}; {\sf TrustServerCertifiate} = {\sf False};$ 

Replace *SQLSERVER* with the SQL server name, *user* with the username of the SQL Server user and *password* with the SQL server user password.



- Installation directory
- 2. Install the SYSPRO Application Gateway Service service.
- 3. Install the SYSPRO Reporting API service.



The following indicates areas in the product that may be affected by implementing this feature:

#### Setup programs

SRS Document Templates Maintenance

Program List > SRS Documents > Document Setup

This program lets you maintain document templates that can be linked to document types.

Maintain SRS Document Templates

#### Program List > SRS Documents > Document Setup

This program lets you create and maintain documents and link these to document templates.

We have updated the following sections in this program:

- You can import and export documents, as well as maintain document templates by selecting the **Functions** option from the toolbar.
- You can specify the output folder where you want to store printed documents by selecting the **Configure** hyperlink at the **Output options** field.
- You can view the template used, schema and sample XML by selecting the **View** hyperlink at the **Document details** field.
- You can view the operator, date and time details by selecting the **View** hyperlink at the **History** field.

#### **Report programs**

- All reports have been updated and converted for the new SYSPRO Reporting Services engine.
- Various 'List of' reports have been deprecated, as these can be easily created.In most cases the information contained in these reports can simply be exported from the listview containing the data. You can view the list of programs deprecated in SYSPRO 8 2025.

#### **Query programs**

SRS Report Queue

#### SYSPRO Ribbon bar > Home

This program lets you manage, execute (i.e. print, email, export) and schedule all your reports on the server.



- We added the **Type** field where you can select to view either documents and reports in the queue.
- We added the **Additional filters** option that lets you filter by document types, dates, times and status.
- The **Preview** hyperlink lets you preview reports and documents.
- Listviews refresh automatically as you select options.



## Affected business objects

The following indicates the business objects that are affected by this feature:

#### **Transaction objects**

Post System Setup Options

The **POST SYSTEM SETUP OPTIONS**<sup>1</sup> business object lets you post system setup options for the **Setup Options** program.

#### **Query objects**

Query System Setup Options

The QUERY SYSTEM SETUP OPTIONS<sup>2</sup> business object lets you query the system options configured within the **Setup Options** program.

<sup>1</sup>Business object: COMTSY <sup>2</sup>Business object: COMQSY

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