

Information and Intelligence

SYSPRO 8

Reference Guide

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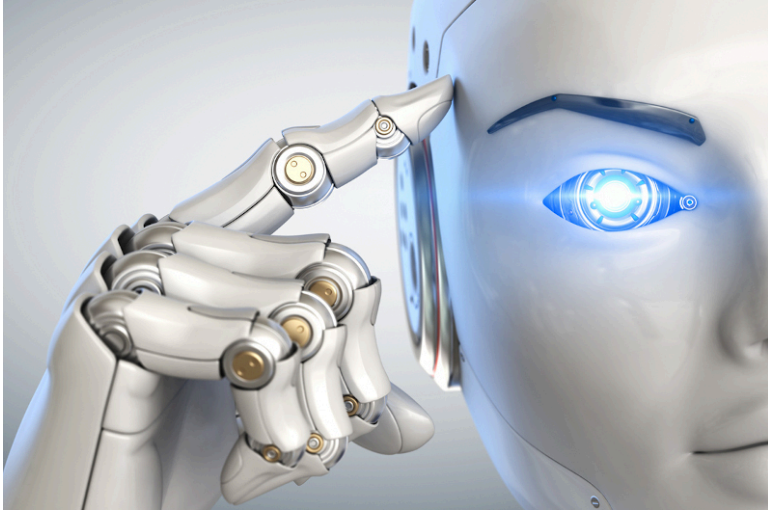
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Information and Intelligence

The following provides a summary of the features and functionality available in **SYSPRO 8**.



2022

Improved Governance and Customer Experience with Tax Connectors

For **Avalara** tax connector users, you can now apply the master account's **Avalara** exemption certificate to determine tax for a sub account. This ensures flexibility in tax determination and aligns customers to local tax regulations.

FOR EXAMPLE:

If the master account has an exemption certificate for the state in which the sub account operates, US tax regulations allow for the sub accounts to apply the master account exemption certificate and for the transaction to be treated as non-taxable.

You can now also configure your tax connector to archive files submitted to **Avalara** or **Vertex**, and to retain an audit log of these transactions.

Global Tax Compliance

In order to support tax reporting globally and comply with regulatory requirements, the size of the **Company tax number** and the **Tax registration number** fields have been increased to 30 digits and the following fields were added to the **Digital Tax Tool** and **Consolidated Tax Return** programs and the **TAX SUBMISSION QUERY**¹ business object to provide insight into the tax status of cross-border sales transactions:

¹Business object: IMPQTS

- Warehouse
- Description of warehouse
- Nationality of warehouse
- Description of warehouse nationality
- Tariff code
- Sales order
- Country or origin
- Nationality description

Control Account Locking

To improve performance and eliminate queuing and roll-backs when processing transactions, new database tables have been created whereby the Inventory, General Ledger, Accounts Receivable and Work in Progress modules obtain next journal numbers and save journal information.

Centralized Payment Processes with Group Payments

SYSPRO's **Group Payments** feature now caters for centralized payments by an organization sharing customers or suppliers across multiple SYSPRO companies. This lets you apply a consolidated customer receipt or supplier payment across multiple customers or suppliers within a payment group.

Benefits include reduced administration through the processing of a single transaction for a consolidated customer receipt (or supplier payment) and the automatic generation of inter-company entries.

Simplifying the customer payment receipt process for multiple customer accounts adds value to the Cash Collection and Customer Credit Management cycle and also helps in producing consolidated AR Statements.

Consolidating payments to groups of suppliers across multiple companies within an enterprise adds value to the Procure-to-Pay business process and supports cash flow planning by providing a consolidated view on future cash requirements.

Dimension Analysis

SYSPRO's **Dimension Analysis** feature extends the product's financial reporting capability by offering you a multi-dimensional detailed view of your financial data and allowing you to slice-and-dice data according to your requirements with minimal effort.

A standardized Chart of Accounts is used and you create dimensions for business segments or reporting categories. These dimensions can then be linked to a business process and appended to financial transactions and operational data. Data quality and consistency is enhanced as all ledger transactions originating from the same source are tagged against the same dimension category.

2021-R2

SYSPRO OData Connector

The **SYSPRO OData** feature lets you connect securely to SYSPRO data without direct SQL access and retrieve data for use by third-party applications. It is a future-proof technology that provides a RESTful API to the SYSPRO database and allows OData-compliant applications to query SYSPRO data in a standard and controlled manner.

Although it is available for both on-premise and cloud solutions, **SYSPRO OData** is the only mechanism available when applications need access to SYSPRO data in the **SYSPRO Cloud ERP** environment (the **SYSPRO Cloud ERP** platform doesn't allow direct database access by any application or personnel).



The **Data Connector - OData** module is currently in BETA status and the connection to **Microsoft SQL Server** is managed manually. The full feature and its functionality is scheduled for release in **SYSPRO 8 2021 R2**.

Accessibility

You can connect to the **SYSPRO OData Service** on an HTTPS endpoint and retrieve live data from the SYSPRO company and system-wide SQL databases (in that SYSPRO instance).

Security

SYSPRO OData is secured via a prerequisite SSL certificate on the endpoint. You can then use your predetermined SQL user credentials to access the underlying SYSPRO SQL table data.



For **SYSPRO Cloud ERP**, external access is then protected from attack and subject to intrusion detection.

Functionality

You can connect external third-party applications to the **SYSPRO OData Service** for analytics, reporting or triggering requirements. Scalability is supported by best practice guides.

Solution Use

A typical user would connect a product such as **Microsoft Excel** or **Tableau** to the **SYSPRO OData** solution, extract data for further analysis or presentation in a visualization tool, and set up schedules to refresh the data.

SYSPRO Business Activity Queries

SYSPRO Business Activity Queries provides a low-code dataset creation tool based on business logic that solves custom dataset requirements across a number of areas of enterprise reporting in SYSPRO.

These include:

- Business insight tiles
- Crystal Sub Reports
- Artificial Intelligence and Machine Learning Dataset Inputs
- Business Intelligence Tools
- SYSPRO Report Writer (via the Data Dictionary)
- SYSPRO OData Custom Datasets

SYSPRO Business Activity Queries are SQL views that are created in the relevant company databases and (because they are defined in SYSPRO) are recognized as data sources. They provide a view into the business data commonly used during the typical business management process. The queries are built and secured in the core ERP system and then surfaced to users via their enterprise reporting and connectivity solutions.

Benefits:

- Reduced risk of inappropriate access to SYSPRO data.
- Increased flexibility of creating custom linked data, including custom form fields.
- SQL views no longer need to be created outside of SYSPRO (i.e. using a tool like Microsoft SQL Server Management Studio).
- Less reliance on custom SQL objects for data access (for both reporting and integrations).
- Reduced need for SQL knowledge in creating custom datasets.

Business Insights Tile Builder

The **Insight Tile Definition** program simplifies designing, verifying and deploying business insight tiles. New tiles are easily created with the revised program which supports regular text, line and bar chart tiles.

Existing and standard SYSPRO tiles can be copied and subsequently changed. The **Insight Tile Definition** program integrates with the new **Business Activity Query Builder** program to allow easy access to custom SQL views.

SRS Import Report Template

This functionality lets SYSPRO administrators import customized report templates into SYSPRO Reporting Services from any location (i.e. local disk or external hard drive). Previously, this involved a lengthy process of manually copying the relevant report templates in to a specific directory.

Customized report templates are created using the SAP Crystal Reports designer and imported into the [SrsReporting](#) table of the system-wide database.

2021-R1

Tax totals for SRS sales order documentation

The **Tax totals for SRS sales order documentation** feature (exclusive to SYSPRO Reporting Services) is designed to comply with the Canadian and US legislation that requires tax total amounts to be shown on sales order documentation. All calculations relating to order and line totals in **Sales Order Entry** and **Point of Sale Entry** are performed using a 3rd party tax system.

Totals you can add when using a 3rd party tax system include:

- Canadian GST and PST
- US State, County and City tax

This feature is available once you have enabled the **APPLY USA 3RD PARTY TAX IN SALES ORDERS** setup option (*Setup Options > Tax > Sales and Use Tax*).

2020-R2

SRS Document Printing in SYSPRO Avanti

Document printing in ***SYSPRO Web UI (Avanti)*** has been simplified with the addition of new format setup programs that let you view the SRS document options.

You can now define format templates for SRS document printing in ***SYSPRO Web UI (Avanti)*** :

- AP Check Format for SRS
- AR Permanent Entries Format for SRS
- AR Statement Format for SRS
- AR Discount Cr Dr Notes Format
- AR Dunning Letter Format for SRS
- Cash Book Remittance Format for SRS
- Inventory Document Format for SRS
- Purchase Order Format for SRS
- Inspection Document Format for SRS
- Quotation Document Format for SRS
- RMA Document Format for SRS
- SO Document Format for SRS
- Factory Documentation Format for SRS
- WIP Inspection Document Format for SRS

SYSPRO Reporting Services Upgrade

From ***SYSPRO 8 2020 R2***, you'll be upgraded to use **SAP Crystal Reports 2016 SP8** as the reporting technology for both server-side and client-side reporting. The upgrade is mandatory for server-side reporting and optional if you are using client-side reporting.

This means that when using server-side reporting, part of the upgrade process involves uninstalling **SAP Crystal Reports 2013** from your server and installing the later **SAP Crystal Reports 2016 SP8** version. You should be aware that the uninstall and install process can take a significant time because of the complexity of the Crystal Reports product (some customers have reported this taking 2 or more hours).

When using client-side reporting, your clients can remain on the existing Crystal Reports version and upgrade to **SAP Crystal Reports 2016 SP8** later when required (i.e. they can continue to produce reports using the previous Crystal Reports version).

Server-side Reporting

SYSPRO Reporting Services for server-side reporting now uses the following from ***SYSPRO 8 2020 R2***:

- SAP Crystal Reports Server 2016 SP8
- SAP BusinessObjects BI platform .NET SDK Redistributable 64bit 4.2 SP8
- SYSPRO 8 Reporting Host Service (64bit)



The ***SYSPRO Reporting Services*** upgrade is mandatory if you are using server-side reporting.

Please note that the upgrade process can take some time.

Client-side Reporting

The changes to SYSPRO Reporting Services for client-side reporting from ***SYSPRO 8 2020 R2*** are as follows:

- The Report Designer has been upgraded to use SAP Crystal Reports 2016 SP 8.
- The new client runtime used is SAP BusinessObjects BI platform .NET SDK Redistributable 32bit 4.2 SP8.
- The updated SYSPRO 8 Reporting Components that are installed include the native xml driver and necessary Java runtime.



The ***SYSPRO Reporting Services*** upgrade is optional if you are using client-side reporting. Therefore, existing customers do not need to roll out the upgrade to all client machines at the same time.

2020-R1

Artificial Intelligence and Machine Learning improvements

The **AI administrator** program was expanded to include an **importance** gauge for AI projects.

The **Feature importance** graph (displayed below the **Model information**) displays a score for each SQL column in the AI project, indicating which data affects the predicted value the most.

This graph and a link to the corresponding data is also displayed when selecting an AI tile in **SYSPRO Web UI (Avanti)**.



Existing trained projects must be retrained to recreate the compact model to include the feature importance.

Trial Balance Totals

The suite of GL Trial Balance programs now includes summary totals for the current financial period according to the defined GL accounts. This is displayed in the final page of the report in a **Company totals - Summary for current period** page.

This feature includes the following programs:

- GL Trial Balance
- GL Trial Balance for Excel
- GL Trial Balance by Group

This report also displays an account type breakdown at the end of each group defined for ledger codes (if you are generating the report for a current period or year-to-date).

2019-R2

Optimized SRS Document Printing performance

There is a new **Optimize print** option available from within the **Maintain SRS Document Templates¹** program.

In a server-side environment, this option lets you print documents as soon as the data becomes available as well as archiving the documents at the same time.

Although this dual capability of printing and archiving applies to both single and batch modes, the performance benefit is more visible when printing in batch mode.

Document Batch Printing

When you enable the **Optimize print** option and are batch printing in a server-side environment, the XML file that is generated for each batch is now only generated once, resulting in improved performance (i.e. a document can be sent to the print queue as soon as the data is extracted and the previous document has completed).

Using the Document Printing API architecture, this XML file is now generated from the core program instead of the applicable document printing program (e.g. **AR Statement Print**) and is then sent to the **SYSPRO 8 Reporting Host Service** to produce the document.

Document Archiving

When you enable the **Optimize print** option and are printing in a server-side environment that requires document archiving, the process is now simplified by combining the process of printing and archiving (i.e. you don't need to split your archiving into multiple batches).

¹Program: SRSPM2

Document types

When you enable the **Optimize print** option, it applies only to the following document types:

- A/R Statement Print
- Purchase Orders – Foreign
- Purchase Orders – Local
- Quotation - Multiple Column
- Quotation - Multiple Line
- Quotation – Single
- Delivery note
- Dispatch note
- Invoice
- Order acknowledgment
- Factory Documentation



The **Optimize print** option is only applicable when the following grouping options for a document template are disabled:

- Spool multiple documents as a single job
- Group by email address
- Group by contact information

Artificial Intelligence and Machine Learning

Versioning and Status Support

The **Administration UI** program within **SYSPRO Web UI (Avanti)** has been enhanced to allow you to :

- Activate a selected project that you require to be used for all predictions.
- De-activate active projects when they are not required.
- Delete a de-activated project that is no longer required.

Download and Import projects

The **Administration UI** program within **SYSPRO Web UI (Avanti)** has been enhanced to allow you to download and import projects (i.e. you can now download a selected project in the project tree list using the browser and import it at another site).

This is particularly helpful when a SYSPRO partner builds a project off-site as they can now easily import it to the customer's machine.

Gauges Infrastructure (KPI Integration)

For regression models, AI tiles can now use gauges to display a predicted value, indicating whether it is positive or negative (tile type: **MLGauge**).

You can use the **Insight Tile Definition** program (core SYSPRO) to define a KPI for your tile. **SYSPRO Web UI (Avanti)** will use this KPI to render the AI tiles.

Anomaly Detection

The following anomaly project samples have been added to the **Administration UI** program in **SYSPRO Web UI (Avanti)**:

- Purchase Order Line Anomaly
- Sales Order Line Anomaly

Business Scenario Expansion

Additional sample business scenarios are now available using predictive and exception machine learning and artificial intelligence:

- PO receipting process and scrap
- Predicted supplier performance
- LCT expected delivery
- Chance of a machine producing a fault
- Sales of stock codes by location
- Payment of invoices by customer
- Lost sales reason predicted

2019-R1

Security Settings Dashboard

Configuring security and ensuring consistency across various operators is a complex process that typically involves a number of programs.

SYSPRO's **Security Settings Dashboard** program lets SYSPRO administrators query operator security settings within a single program.

Benefits:

- Query and view security information.
- Verify which operators have access (and how the access is configured) to various securable entities.
- View possible program conflicts.
- Amend security configuration in related programs via smart links.

2018-R2

Insight Tile KPI Definition

Additional improvements have been made to the business insights feature:

- Simple and flexible warning and critical threshold definition.
- Color and/or Icon override when thresholds reached or exceeded.
- Operator, Role, Company and System-wide KPI definition.
- Definition provides single view of all KPIs.

AI and Machine Learning

Machine learning forms part of the ***SYSPRO Artificial Intelligence*** module. It uses specific algorithms and statistics to examine historical data. The program then uses the data patterns to reveal trends and predict future outcomes, benefiting management by presenting the big business picture.

Although these predictions require minimal human intervention, they rely heavily on the data quality and the attributes of the SQL statement. Reliable predictions will support business processes and improve decision making by learning from past experiences.

2018-R1

Business Insights

Business insight tiles (also called insight tiles or just tiles) are essentially SQL scripts displayed in a tile format within a SYSPRO web view. These tiles are context-driven and let you act instantly on events, facilitating informed business decisions and sound business behavior.

They are an individual employee performance management tool for all levels of engagement, providing an intuitive, real-time view of performance against KPIs, goals and targets.

The **Insight Tile Definition** program lets you create and deploy business insight tiles. You can define specific thresholds for targets or key performance indicators (KPIs) and highlight these values on business insight tiles.

KPIs on tiles can be used to highlight values approaching or exceeding pre-determined objectives or thresholds. This lets you proactively keep an eye on approaching targets. These targets could be a certain value, company-wide goal or a specific target agreed for a person or a role within the organization.

Tiles can be added to the main SYSPRO menu to surface company information (e.g. the `total backorders for the company`) or they can be added to specific programs and provide the key field as a context (e.g. the `total backorders for a customer`).

Additionally, when you click on a Business Insight tile, you can drill down to more detailed information displayed in a list view that derives its context from the specific tile measurement parameters.

You can also create administration insights (e.g. failed transactions, users logged in, etc).

Benefits:

- Accelerate turnaround time and drive throughput by streamlining the actions and activities that occur between one task and the next.
- Increase decision-making capability with increased visibility into operational performance of the company by individual and department across the entire operation to determine where you are successful and where you need to improve.
- Measure and improve performance by assigning standard, or tailoring specific, key performance indicators and metrics designed with the ability to immediately action work-to-lists - converting KPIs into meaningful improvement.
- Empower the workforce to meet goals and targets by assigning insights in an intuitive, self-explanatory, easy-to-use interface, aligned with critical business drivers and work-to-lists to be actioned

Open Reporting API

The **Open Reporting API** lets developers and external applications call SYSPRO to run and distribute documents directly in the external application.

Leveraging the SYSPRO Reporting Service Server infrastructure, developers can query the SYSPRO database and produce the required documents which are added to the print queue from where they can be viewed, executed and managed. Developers can access the document via the document queue for further automation (a destination code indicates the origin of the queue item).



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