

# 2020 Roadmap Themes

SYSPRO 8

Reference Guide

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# Roadmap Themes 2020

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

## Improved Control of Internal Operations



As globalization continues and access to world markets becomes easier, manufacturing industries are under pressure to remain competitive and improve efficiencies while reducing costs, and being able to deliver their product anywhere in the world at short notice.

These expectations require improved internal controls throughout the manufacturing business. To support this, a number of capabilities are being developed to offer the manufacturing business the required level of internal control.

### 2020-R2

#### **SYSPRO Point of Sale**

##### Crediting Kit Receipts

**SYSPRO Point of Sale** capabilities have been extended so that customers can now process credits against all kit type items directly in **SYSPRO Point of Sale** (previously this would have to be performed manually in the core SYSPRO product).

Kit types can now be credited either from the original invoice, or manually in the **Credit Note** program (available from the **Store** menu) or **Manage Credit Notes** program (available from the **Store Management** menu).

## Requirements:

- Default bins must be defined in SYSPRO for parent and component lines for the warehouse.
- The `ShowKitComponentLines` element in the `SystemConfig.xml` file must be enabled (i.e. its value must be defined as `true`).

## Limitations:

- This doesn't apply to the **Point of Sale**, **Manage Quotes** and **Exchanges** programs (available from the **Store** menu).
- Lot, bin and serialized items in kits are not supported. Therefore, this does not apply if the **MULTIPLE BINS** option is enabled.
- Kit type **F** is not supported, so you cannot enable the **Ship from default bin** option in ***SYSPRO Point of Sale***.



Kit optional components are always added in ***SYSPRO Point of Sale***.

## Template Design with SYSPRO Reporting Services

The print template design process in ***SYSPRO Point of Sale*** has been simplified to use ***SYSPRO Reporting Services*** to support custom documents. This replaces the previous printing designer (**Stimulsoft**).

## Petty Cash Transaction Governance

***SYSPRO Point of Sale*** lets you monitor, control and report on all petty cash transactions to improve governance at branch level.

## Petty Cash Query

The new **Petty Cash Query** program (accessible from the **Query** menu) lets you query, review and reprint petty cash transactions. You can search petty cash transactions by branch, document number, or date range.

## Petty Cash Transactions

The existing **Petty Cash** transaction screen improves traceability for petty cash transactions by including petty cash document numbers for all petty cash transaction types.

## Petty Cash Report

The existing **Petty Cash Report** caters for petty cash document numbers, as well as a reprint capability.

To enable the printing of the new receipt numbers, you need to update the petty cash template with the latest default template or dictionary and add the field onto the existing report.

## Branch Settings

New options were added to the **Petty Cash** tab of the **Branch Settings** program that let you define transaction limits for petty cash expenditure and receipts, as well as configure whether supervisor authorization is required when limits are exceeded. The options are disabled by default:

- Enforce Petty Cash Expenditure
- Petty Cash Expenditure Limit
- Enforce Petty Cash Receipt Limit
- Petty Cash Receipt Limit

## SCT Access Control

The existing access control within **SYSPRO Point of Sale** lets administrators more closely control various aspects of supply chain transfer functionality to improve governance at store level.

The following functions within the **Manage SCT's** program can now be controlled at Branch, Role, User and Device level:

- Add Item
- Edit Item
- Add Other
- Delete Item
- Allocate B/O
- Release B/O
- Invoice SCT
- Cancel SCT
- Update Header


## Access Control

The new **Access Control** program (available from the **Setup** menu) serves as the interface for all newly added or existing access control items that have been enhanced. It lets administrators define the following types of visibility and/or functionality where relevant:

- **Visibility**

These options let administrators define what functions (i.e. controls) are visible to operators, by selecting one of the following permission levels:

- Collapsed: The function is hidden from the operator.
- Visible: The function is visible to the operator.
- Inherit: The system must check higher up in the access control hierarchy to determine the function's visibility.

-  All current controls default to `Visible`, but any new controls added in future will default to `Collapsed`.

- ### Functionality

These options let administrators define the functionality available to operators, by selecting one of the following permission types:

- Deny: The function is disabled.
  - Allow: The function is enabled and requires no supervisor authorization to proceed.
  - Allow (Auth req): The function is enabled but requires supervisor authorization to proceed.
  - Inherit: The system must check higher up in the access control hierarchy to determine the function's accessibility.



All current controls default to `Allow`, but any new controls added in future will default to `Deny`.

## Increased stock & bin visibility when adding orders and quotes

The following programs in **SYSPRO Point of Sale** have been enhanced to assist operators to quickly identify stock availability and bin locations when adding a sales order or quote:

- Manage Orders** (available from the **Store Management** menu)
  - Point of Sale** (available from the **Store** menu)
  - Manage Quotes** (available from the **Store** menu)
  - Exchanges** (available from the **Store** menu)

Administrators can now define an operator's visibility access (within the **Access Control** program) for the following display fields when adding sales orders or quotes:

- Quantity on hand
  - Default bin



The **Visibility** permission for these functions defaults to `Collapsed`.

This increased visibility provides operators with vital information when they need it.



If you installed hotfix `KB8050234` in the **SYSPRO 8 2020 R1** release (which let you view these fields by defining the `<QtyOnHandAndDefaultBinIsVisible>` setting in the `SystemConfig.xml` file) then you will need to reconfigure the access to these fields using the new **Access Control** program.

## Transaction Audit Trails

Improved transaction tracking and governance has been included in **SYSPRO Point of Sale** by providing an audit trail of all data changes relating to transaction processing and printing. You can now monitor, control, and report on key functions (e.g. granting of discounts).

You can configure which audit trails you require in the new **Audit Trail Setup** tab of the **System Settings** program. The new audit trail reports (available from the new **Audit Trails** menu tab in **SYSPRO Point of Sale**) include:

### Supervisor authorizations

Two new programs (**Header Authorization Audit Trail** and **Detail Authorization Audit Trail**) detail all occurrences where a supervisor authorization has been applied to a sales order or quote header change (e.g. tax override, credit notes, price margin, etc.).

### Detail line deletions

A new **Line Delete Audit Trail** program details all occurrences where a line has been deleted from a quote or sales order.

### Special Discounts

A new **Price And Discount Audit Trail** program details any change made to a price or discount on sales order or quote lines in the **Point of Sale** or **Manage Quotes** programs (available from the **Store** menu).

The report also indicates whether a supervisor authorization was applied, including the details that were applied.

### Document Printing

A new **Print Audit Trail** program provides an audit trail of any printing or reprinting of sales invoices and quotes performed in **SYSPRO Point of Sale**.

### Changes to Ship methods

A new **Ship Method Audit Trail** report provides an audit trail of any changes made to the ship method on quotes and sales orders in the **Point of Sale** or **Manage Quotes** programs (available from the **Store** menu).

The report also indicates whether a supervisor authorization was applied, including the details that were applied.

### Tax Code Changes

A new **Tax Code Audit Trail** report details any changes made to tax codes on quotes and sales orders in the **Point of Sale** or **Manage Quotes** programs (available from the **Store** menu).

## Considerations:

- The `EnableAuditTrailLogging` element in the `SystemConfig.xml` file can be enabled or disabled per site.
- The new audit trail database (`SysproComp_POS_AuditTrails`) contains the following new tables:
  - `_SystemAuditTrailPrinting`  
This stores an audit trail of any prints performed.
  - `_SystemAuditTrail`  
This stores audit trail-specific information.

## Limitations:

- Supply Chain Transfers are not included in the audit trail reports as ***SYSPRO Point of Sale*** posts SCT-related information directly to SYSPRO in real time. However, you can access SCT information directly from the `SorAdditions`, `SorChanges` and `SorCancelled` tables.
- Transactional data is not replicated in the SYSPRO company database to offline branches.

## Intrastat Triangulation

**Intrastat Triangulation** occurs when three EU states are involved in a transaction, where one orders goods from a second while goods are sourced from a third.

- The state receiving goods records an Intrastat arrival.
- The state dispatching goods records an Intrastat dispatch (declaring the ordering state as a recipient).
- The intermediary or agent state records nothing for Intrastat purposes.

When a requisition, purchase order or sales order is created, the triangulation role of agent, supplier or customer is selected, as well as the dispatch and destination states. These details are specified at order line level for stocked and non-stocked goods, so they are used when creating dispatch notes, credit notes or reprint files, and when receipting in stock from inspection.

You can view and change tariffs on the Intrastat triangulation transactions using the **Maintain Intrastat Dispatches** and **Maintain Intrastat Arrivals** programs. Intrastat transaction values are reported in the **EC Triangulation Transactions - Dispatch** and **EC Triangulation Transactions - Arrivals** reports.



## Return Merchandise

### Sales order discounts on RMAs

You can now automatically apply the discounts given on the original sales order when processing an exchange or cross shipment of an RMA.

When adding RMA cross shipment details, the discounts from the original invoice are displayed by default at header or line level, as per the original sales order. If the RMA is not linked to an invoice, the discounts set up against the customer are displayed by default. These can then be accepted or updated when generating the sales order for replacement goods.

When an item was returned, and the sales order is created for the replacement goods, the discounts from the original invoice are applied to sales order by default. The discounts can then be accepted or changed.

### Securing transactions

New eSignatures can be applied to RMA transactions to improve governance and control. These let you manage and secure the RMA process and cover adding and changing RMA's as well as adding, changing, receipting and crediting RMA lines.

# 2020-R1

## MFA Operator History Query

This program lets you view the history of successful MFA authentications for the company.

SYSPRO automatically tracks each time an operator successfully authenticates themselves to SYSPRO through **Multi-Factor Authentication** and logs which authentication method is used. Its purpose is to assist system administrators in effectively managing system security.

## Recall Management

The product recall process includes any traceable parent item that has been received into stock, ensuring it can be quickly and easily located in the supply chain. It means that lot and serial traceable items received through jobs, inventory movements, backflushing or purchase orders are included when selecting items you want to recall using the **Product Recall Selections Review** program.

The product recall process includes stock items that were manufactured, sold and delivered to the customer, as well as items that were receipted into stock and are still residing in the warehouse.

## Job Nesting

The **Job Nesting** feature has been extended to include manufacturing units of measure (MUM). This means you can use the stocking, alternate, manufacturing or other units of measure when issuing stock to the nested job.

Affected programs

- WIP Nest Processing

The **Unit of measure** field was added to the **Issue Materials** pane. This lets you select the unit of measure when issuing materials to the job nest.

## Recorded Dates

You can now capture and save dates against specific lots to manage the shelf life and expiration dates of traceable items. These dates include: **Use by date, Sell by date, Internal expiry date, Manufacturing date, Dispatch date** and **Best before date**.

In most cases, the additional lot date fields are hidden by default and must be selected using the **Show Captions** option from the context-sensitive menu.

Affected programs

- Purchase Order Receipts
- Purchase Order Inspection
- Shipment Receipt
- Bins, Lots & Serial Capture

- WIP Inspection Document Print
- Job Receipts
- WIP Inspection
- WIP Inspection Accept into Stock
- Job Receipts
- Factory Documentation Format

## eSignatures

Access and maintenance of recorded dates are included in and controlled by the following eSignatures:

- WIP Stocked job receipts
- WIP Stocked job receipts e.net
- PO Apportion quantity receipt
- WIP Inspection (accept)
- WIP Inspection (accept) e.net
- Inv Receipt
- Inv Receipt e.net

## SYSPRO Point of Sale

Custom Integration - Hook-On-Line-Level

The **Hook-On-Line-Level Assembly** custom integration for third party developers within **SYSPRO Point of Sale** has been enhanced to allow for operator input.

Third party developers now have access to an external assembly that enables a prompt for operator input while processing a sale, credit, exchange or quote in **SYSPRO Point of Sale**.

The following options are now available:

- **Notify operator of order changes**

This sends a message to operators each time they perform an action that intercepted by the external assembly, notifying them that the transaction has been modified by the custom integration.

- **Allow operator override with authorization**

This allows an operator to bypass the interception with supervisor authority, so that the transaction behaves as it normally would (i.e. the external assembly is not used).

This external assembly is stored within the `C:\inetpub\wwwroot\SYSPRO8POS_EDU1\SYSPROPOS\ExternalAssemblies` folder.

You can configure this within the **Hook on Line Level Assembly** tab of the **General Settings** program (available from the **Setup > System Settings** menu in **SYSPRO Point of Sale**).

The name of the external assembly (`SysproPointOfSaleHookAtLineLevel.dll`) is inserted and you can select the test option to confirm that **SYSPRO Point of Sale** can read the assembly.

### Conversion to SYSPRO Web UI (Avanti)

The **SYSPRO Point of Sale** software suite is now completely available on the **SYSPRO Web UI (Avanti)** platform.

#### *Benefits:*

- Cloud-related functionality (e.g. web interface).
- Screen customization and full use of SYSPRO custom form fields.
- The availability of Point of Sale on Cloud type devices (e.g. tablets).

### Sales Dashboard

The **SYSPRO Point of Sale** architecture has been enhanced to enable you to create your own custom dashboards, based on your specific business needs.

These dashboards make use of SYSPRO's Business Insights technology and can provide key information regarding the sales and performance of a Point of Sale branch.

To create a dashboard, simply use the **Visual Designer** when designing your home screen in **SYSPRO Web UI (Avanti)**. SYSPRO provides 2 samples which you can use to get you started.



Point of Sale branches can now set their own targets, over and above corporate budgets, to monitor their performance.

An example of what can be done using this new functionality, would be a sales dashboard:

Statistics regarding the intensity of a Point of Sale branch's performance can be highlighted, down to hourly trading, enabling you to actively monitor and manage your sales.

Trends that can be highlighted include the following:

- **Sales Value**  
This indicates the net value of sales, after all discounts, and excluding any sales tax.
- **Footfall**  
This indicates the number of transactions (i.e. sales invoices generated).  
SCT's and other non-revenue related inventory movements are excluded.
- **Average Purchase Value**  
This indicates the average value of sales to customers.  
This is determined by dividing the **Sales Value** by the **Footfall** for a specified time period.

## Negative Stock Processing by Warehouse

You can now define negative stock capacity at warehouse level for ***SYSPRO Point of Sale*** transactions.

Allowing negative stock for a specified warehouse utilized by a branch solves the problem of having a customer at the till with goods in hand, but the till operator not being able to process the sale due to the system showing no stock on hand.

This configuration is available on the **Warehouse 2** tab of the **Branch Settings** program within ***SYSPRO Point of Sale***. From here you can also indicate if a warning must be displayed when a transaction will cause a negative stock situation.

## Password Standardization

***SYSPRO Point of Sale*** now supports the same level of password control as SYSPRO and provides the following capabilities:

- Automatically expire user passwords after a defined period of time.
- Enforce rules regarding the construction of a password to ensure greater security.

Therefore, when a user changes their password in ***SYSPRO Point of Sale*** for any reason, it will be validated against these setup options to ensure the password meets the minimum requirements.

This configuration is available on the **Password Settings** tab of the **System Settings** program in ***SYSPRO Point of Sale***.

## Deposit Management

The management and governance of deposits at branch level has been improved with new trial balance and audit trail capabilities.

The **Deposits Trial Balance** produces a deposit payment trial balance of all unapplied deposit liabilities recorded in ***SYSPRO Point of Sale*** for improved governance:

- All deposit values are listed by customer.
- Information is derived from the **ArInvoicePay** table, and is subtotaled by customer.
- The report is branch specific.
- Zero value balances are excluded by default, with an option for inclusion.
- The report defaults to the current system date, with an option to change the date to an earlier date. If you select an earlier date then the report excludes all entries subsequent to the selected date.

The **Deposits Audit Trail** provides an audit trail of deposits taken for sales orders in ***SYSPRO Point of Sale***:

- New deposits, deposit applications against sales and deposit refunds are identified separately.
- All deposit transactions processed in ***SYSPRO Point of Sale*** are included, as recorded in the [ArInvoicePay](#) table.
- The report is branch specific and provides for financial period and date range selections.

These new programs are both available from the **Query** program in ***SYSPRO Point of Sale***.

### Online and Offline Receipt Numbers

***SYSPRO Point of Sale*** governance regarding the management and control of account payments has been enhanced.

The system now retains a list of receipt numbers and allocates a unique document number for all account payments received and processed at a Point of Sale store.

This occurs for both online and offline processing to prevent duplicate receipt numbers when the system is back online.



This is particularly useful in an offline situation, as it enables you to instantly provide a customer with their proof of a payment.

In addition, the new **Account Payments** program (available from the **Query** menu) provides Point of Sale administrators a view of all account payment processing for their store. By default, access to this program is only assigned to the `Admin` role.

Things you can do in this program include:

- View an audit trail report of all account payments.
- Query account payments by your preferred selection criteria.
- Reprint an account payment.

This significantly improves the management of and governance over account payment transactions processed through ***SYSPRO Point of Sale***.



This functionality does *not* apply to customer account payment re-allocations.

### Supply Chain Transfer Security

***SYSPRO Point of Sale*** administrators can now control various aspects of supply chain transfer functionality at a more granular level, improving the governance and security over SCTs.

The new **Access Control** program (available from the **Setup** menu) includes the following capabilities at branch, role, user or device level:

- **Visibility**

This pane enables you to define whether or not the option is available to the operator.

- **Functionality**

This pane enables you to define an operator's access to various functions as follows:

- Denied
- Allowed without supervisor authorization
- Allowed with supervisor authorization
- Inherit access control according to hierarchy

You can therefore use this program to define the following abilities of a user for SCT transactions:

- Add item
- Edit item
- Add other
- Delete item
- Allocate back order
- Release back order
- Invoice SCT
- Cancel SCT
- Update header

### Shipping Method Security

Governance regarding the delivery of goods to customers has been improved, with new security in terms of a user's ability to change shipping methods in the **Manage Orders** and **Manage Quotes** programs of ***SYSPRO Point of Sale***.

The new **Access Control** program (available from the **Setup** menu) enables you to define an operator's access to various functions (at branch, role, user or device level) as follows:

- Denied
- Allowed without supervisor authorization
- Allowed with supervisor authorization
- Inherit access control according to hierarchy

You can therefore use this program to define a users access rights for changing shipping methods on new or existing orders in ***SYSPRO Point of Sale***.

## Request for Quote System

The **Request for Quote System** feature has been enhanced:

- Improvements to the governance of the RFQ process ensures that an RFQ can be sent directly to suppliers using the **SYSPRO Supply Chain Portal**. Once you end the RFQ, you can email it to suppliers, inviting them to submit a quote via the portal.
- You can use the **Send Email** program to configure the RFQ invitation email template that is sent to suppliers.

### User interface changes

- The **Expiry date** wording was changed to **Closing date**. The supplier can submit a quote on or before the closing date of the RFQ and a quote can only be accepted after the closing date.
- The supplier cannot change the pricing unit of measure (i.e. the supplier must quote in the unit of measure provided).
- Only requisitions of type **Normal** can be accepted for RFQs using the **Requisition Entry** program.

The **Accept for RFQ** tool is disabled if the requisition type is **Issue** or **Transfer**, as these are used for stock and/or warehouse management.

## Quick Quotes

The **Quick Quotes** functionality has been enhanced to allow you to add the quick quote number field to the **Quick Sales Order Entry** program. This lets you search for quick quotes, as well as view the quick quote number on various sales order and printing programs once the quote has been converted.

The quote reference number is auto-generated according to the defined **QUICK QUOTES** setup options (*Setup Options > Keys > Distribution - Sales Management*).

### Affected programs

- SO Quotes
- Document Print
- Sales Order Entry
- Sales Order Query
- AR Branch Maintenance
- SO Document Formats





The **Quick quote number** field is hidden by default. You can reinstate it using the **Field Selector** option from the context-sensitive menu (displayed by right-clicking any field in the pane). Simply select the field from the **Sales Order Quote Header** and drag it onto the pane.

## Order Picking - L&F Account

The **Order Picking** feature has been extended to let you configure how you want to account for stock shortages in the warehouse. Stock shortfalls can be processed as stock adjustments using inventory journals, or missing stock can be transferred to a separate lost and found warehouse. When using a lost and found warehouse, you can offset shortages when stock is found during stock takes or cycle counts.

A sales order and order line that is in status **R - RELEASED TO PICKING** or **P - IN PICKING** can't be invoiced, as the picking cycle hasn't been completed. Once picking is completed, the sales order status returns to **1 - OPEN ORDER LINE** for invoicing.

### Affected programs

- Warehouse Maintenance

The **ACCOUNTING FOR SHORTAGES** option lets you select whether you want to process stock shortfalls as an adjustment against the warehouse or place the missing stock items in a separate warehouse.

- Sales Order Entry

When stock can't be picked because of shortages, the quantity on the sales order is not adjusted, as the stock quantity is placed in back order.

- Pick Maintenance

- Pick Review

- Lost and Found Warehouse Review

This program lets you view and manage the stock items placed in a lost-and-found warehouse during order picking and cycle counting.

## Cycle Counting - L&F Account

The **Cycle Count** feature has been extended to let you manage stock surpluses discovered during cycle counting. You can also capture cycle count information from within the **Browse on Cycle Counts** program.

## Affected programs

- Cycle Count Review and Confirm

You can review and transfer surplus stock by selecting the **Review** link in the **Lost and Found warehouse/Increasing** column. The selected stock will be transferred from the lost and found warehouse to the bin that was counted during cycle counting using the **Lost and Found Warehouse Review** program.

The Review link is only displayed if *surplus* stock was captured for the cycle count.

- Browse on Cycle Counts

You can capture counted quantities by selecting the **Action** link at the **Functions** column and choosing **Capture a cycle count**. The **Cycle Count Capture** program is displayed.

- Inventory Lost and Found Warehouse Query

This new business object lets you view all items in the lost and found warehouse.

## GIT Amendment Journals

This enhancement lets you view goods in transit information.

When the **GOODS IN TRANSIT AMENDMENT JOURNAL** setup option is enabled, amendment journals are created when GIT detail records are added or updated (*Setup Options > Preferences > Distribution > Inventory*). This occurs in a variety of circumstances (e.g. processing a transfer in, creating or printing a transfer out, updating a transfer due date, etc).

The **GTR Detail Amendment Journals** program displays a list of amendment journals and the corresponding before and after values.

# Improved Organizational Controls



As the landscape changes, businesses need to focus on improving organizational controls and internal controls.

Improved organizational control will become steadily critical as the business changes and grows, and for improved real-time decision making by the leadership team.

## 2020-R2

### WIP by Branch

The **WIP by Branch** feature extends ledger integration options to include integration at branch level (only job classification was available before). This means that each branch and job classification can have separate WIP ledger control accounts. Previously, you could only define a single WIP control account and WIP variance account per company.

You can enable WIP branches for the following:

- Jobs
- WIP inspections
- Job numbering
- Job classification

### VAT reverse charges for tax submission

The **VAT reverse charges for tax submission** feature lets SYSPRO record VAT that would've been paid by a company if services were procured from within their EU state, but which were in fact procured from another EU state. It caters for VAT requirements in UK and EU countries that need to disclose reverse charges when submitting tax reports.

The notional tax transactions are accumulated and made available for subsequent reporting using the MTD 9-Box **Tax Return** report and the **Digital Tax Tool**.

To determine the reverse charge amounts, a notional invoice is raised with the same value as is reflected on the actual invoice. Tax is then calculated using local tax rates. A notional tax credit note is generated to contra and therefore cancel the notional invoice.

Changes on the MTD 9-Box Return:

- The notional tax value of the invoice is displayed in box 4 (VAT Reclaimed).
- The notional tax value on the credit note is added to box 1 (VAT Due).
- The effect on the Net VAT in box 5 is thus zero.



The notional invoice and tax credit notes are pro forma entries with implied costs and are not recorded against the supplier.

# 2020-R1

## SYSPRO and SQL Server Encryption

As data encryption technologies form a vital part of any security and privacy data compliance strategy, this feature lets administrators configure the connection between SYSPRO and **Microsoft SQL Server** using **Transport Layer Security (TLS)** to provide **Data Encryption in Motion**.

The feature assists with compliance to stringent privacy regulations and government acts, as it focuses on securing data from SYSPRO when using **Microsoft SQL Server**.

### Data Encryption in Motion

This describes a technique of configuring SYSPRO and **Microsoft SQL Server** so that all communication between the two is encrypted. Now data encryption can be enabled from the client, instead of only controlling encryption within the **Microsoft SQL Server** instance.

The following data is encrypted when using this type of configuration:

- Initial connection information
- SQL statements issued
- Actual data passed to and from **Microsoft SQL Server**

## Digital Tax Developments

### UK VAT Return Reports

SYSPRO's suite of tax programs has been bolstered by functionality that lets you generate, print, reprint and submit a 9-box-grid UK VAT return.

### Affected programs

#### Tax Return

This program lets you generate a report that consolidates sales tax information for ease of submitting tax returns to authorities.

The report is designed to meet the MTD tax requirement as set out by UK legislation.

The printing and reprinting option was enhanced to facilitate the following:

- Print unprinted transactions.
- Reprint all transactions.
- Reprint non-submitted transactions.
- Reprint and submit non-submitted transactions.

#### Tax Return Status

This program lets you generate a report displaying the total number of tax return transactions that haven't yet been printed; that have been printed but not submitted; and that have been printed and submitted according to the defined tax years and periods.

Because you now have a record of the status of tax return submissions, you can make informed decisions regarding the criteria for which you would like to generate the **Tax Return** report.

SYSPRO's **Executive View** includes two new customized panes:

- **Tax Return Status (Summary)**

This customized pane lets you view the total number of tax return transactions that have not yet been printed; printed but not submitted; and printed and submitted according to the defined tax years and periods.

- **Tax Return Status (Detail)**

This customized pane lets you view details of transactions that have not been printed and not submitted, for the range specified. Information such as **Journal**, **Invoice Reference**, **Tax value** and **Status**, could be required for query purposes.

As with the **Summary** view, you can view the total number of tax return transactions which have not been printed, submitted and not yet submitted.



These panes let you check the submission status without running the reports.



The data displayed (extracted from the [AdmTaxReturn](#) table) is only for the current and previous two periods.

## Cash Book Tax Distribution by Tax Code

Accumulated tax amounts on deposits and withdrawals can now be defined by ledger code or by tax code (by selecting the **GL code by tax code** option at the **DEFAULT TAX CODE** setup option (*Setup Options > Tax > Cash Book*)).

You must define the ledger codes and descriptions per tax code, using the **Tax Code Setup** program.

When the deposit or withdrawal transaction is posted, the ledger codes and tax amounts can be viewed in the following programs:

- Tax Return
- Cash Book Journal
- Cash Book Tax Report
- Cash Book Print

## Tax on Settlement Discount

The **Tax on Settlement Discount** feature lets you distribute the tax portion across multiple tax codes associated with the original invoice. This is controlled by the **DETERMINE TAX BASED ON INVOICE PAID** setup option.

All programs in the **Accounts Receivable** and **Accounts Payable** modules handle **withholding tax** and **tax on settlement discount** concurrently, depending on the configuration settings.

#### Affected programs

The following programs in the **Accounts Payable** module were enhanced to calculate the tax amounts per tax code:

- Payment Cycle Maintenance
- AP Release Invoices to Pay by Review
- AP Automatic Release of Invoices to Pay
- Execute AP Payment Run
- AP Manual Check Entry

#### Tax Transaction by GL Allocation Account

SYSPRO's suite of tax programs has been bolstered by the addition of the **Tax Transaction by GL Allocation Account** report program.

This report lets you generate a tax return breakdown by ledger code, indicating those accounts to which tax-related transactions have been posted for electronic or manual submission to tax authorities.

It gives tax authorities extra assurance that returns have been accurately completed.

# The Supply Chain and Connected World



The competitive landscape has changed and each manufacturer increasingly faces a requirement to find new and alternative routes to market, as well as being able to better service their current market.

SYSPRO's product roadmap provides capabilities to improve processes to support optimization of the sales and distribution channel as well as aftermarket support for the sale.

## 2020-R2

### **SYSPRO Bot**

#### Skills Expansion

The **SYSPRO Bot** set of skills now lets you query purchase order balances, GRN details and ledger balances.

These new skills include:

- **PO Balance Query**  
This skill lets you view purchase order balance details.
- **PO GRN Query**  
This skill lets you view *summary* purchase order details and GRN information.
- **PO GRN Detail Query**  
This skill lets you view *detailed* purchase order details and GRN information.
- **GRN Query**  
This skill lets you view GRN details.
- **General Ledger**



- This skill provides the new General Ledger menu within the **SYSPRO Bot**.
- GL Query  
This skill lets you view ledger details.
- GL Balance Summary Query  
This skill lets you view the module, ledger control and recalculated difference information.

### Custom Search Expansion

New custom searches are available to the `Skill.GLBalanceSummaryQuery` skill that lets you query the ledger for a specific module and period without having to enter this information manually.

- GLModule
- GLModulePeriod

# 2020-R1

## SYSPRO Supply Chain Portal improvements

SYSPRO's portal architecture now caters for dedicated **POR TAL SUPPLIER** and **POR TAL CUSTOMER** fields against each operator.

Previously, when a portal user logged into the **SYSPRO Supply Chain Portal**, the system used the **DEFAULT SUPPLIER** code entered in the **E.net** pane of the **Operator Maintenance** program as the supplier code.

The new **POR TAL USER** fields are maintainable within the **Options** pane of the **Operator Maintenance** program.



The **POR TAL CUSTOMER** field is currently not in use and will only become relevant with a later release of SYSPRO.



If you configured RFQ portal users prior to this change, the supplier codes are seamlessly migrated as part of the upgrade to the **SYSPRO 8 2020 R1** release. No additional configuration is required.

## SYSPRO Bot

### SYSPRO Bot Customization

The new **SYSPRO Bot Customization** program in **SYSPRO Web UI (Avanti)** lets you modify various permission aspects of the **SYSPRO Bot**.

Things you can do in this program include:

- Configure the SYSPRO Bot skills available at role or operator level
- Customize the action buttons associated with each SYSPRO Bot skill
- Customize the skills available on the SYSPRO Bot main menu for specific roles or operators

### Document Format Customization

The following **SYSPRO Bot** format settings can be defined system-wide, by company, by role or by operator (in the **Custom Configuration** program against the

`SYSPROBotDocumentFormatOptionsParameter` entry located under the **XML Parameters** folder):

- Order Acknowledgments
- Delivery notes
- Invoices
- Quotes
- Purchase Orders

## Skills Expansion

The following new skills are available with the **SYSPRO Bot** to let you create quotes that are not customer-specific:

- Add Quote Line Menu
- Add Quote Comment Line
- Change Quote Line
- Confirm Quote
- Delete Quote Line

## Custom Search Expansion

The following new custom search is available with the **SYSPRO Bot**:

- QuoteChangeLineItem

## SYSPRO Bot Software Development Kit

This feature extends the **SYSPRO Bot** functionality beyond the standard skills provided by SYSPRO.

You can now easily create the functions (i.e. skills) that your organization requires without having to host a completely new bot.

These skills can then connect to SYSPRO business objects, external data sources and external applications.

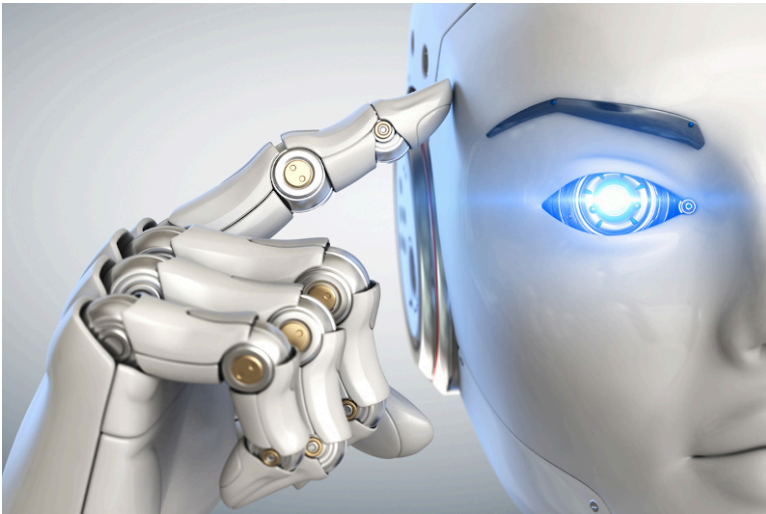
### FOR EXAMPLE:

You can create a custom skill for employees to process their leave applications, which connects to your internal leave application system.



Resources will be made available on the **SYSPRO Learning Channel**.

# Information and Intelligence



Along with the improved controls, a business needs information to function. Digital Transformation is bringing more and more information to the business, but without the tools to manage all of the extra information it adds no value.

SYSPRO adds the key tools to manage and analyze all of the extra information. Augmented Services translates all of the knowledge into an improved customer experience.

## 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).

# Power Tailoring and Customization



## 2020-R2

### **SYSPRO Avanti Power Tailoring**

New power tailoring functionality in **SYSPRO Web UI (Avanti)** lets you customize the platform to suit your own personal requirements:


Customize applications

**SYSPRO Web UI (Avanti)** lets you customize applications (such as adding scripts to change the behavior of form fields or grid data) or extend the capabilities of any application to display more information, either from the SYSPRO database or from any external application.

All applications in **SYSPRO Web UI (Avanti)** or SYSPRO generally comprise grids, form fields, charts, notepads and toolbar buttons. You can also add user-defined customized panes to any application which can contain a grid, form or a number of other types of controls.

To customize aspects of the SYSPRO application in the core product, you would previously right-click on a form field, toolbar, grid column header or docking pane window title, which enabled you to access the **VBScript Editor**, add a customized pane or to generally access customization capabilities.

All customization capabilities in **SYSPRO Web UI (Avanti)** are controlled by a single program:


**Customize Application** which you can access from the **Settings** icon  in any application. The program is only available if the VBScript security option is enabled and are not logged in as a role.

The program provides the following capabilities:




- List views
  - Add a custom column
  - Edit a VBScript
  - Apply conditional formatting
  - Add or remove a grid column's visibility
  - Remove a custom column
- Form fields
  - Edit a script for a form or form field in the application
  - Add or remove a field's visibility in SYSPRO
  - Remove a custom form field
- Toolbar buttons
  - Edit a script for any toolbar button used in the application
- Custom form fields
  - Create or modify a custom form field
  - Add a custom form field to the application
  - Add a field from an associated master table to a form
  - Add a scripted field to a form
- Additional components
  - Create your own customized pane or component
  - Add a pre-built component to the application
- Customized panes
  - Edit or remove any existing customized panes
  - Reset the layout for the application

### Considerations:

- You can also access the **Customize Application** program with identical capabilities from the gear  icon in core SYSPRO..
- In **SYSPRO Web UI (Avanti)**, it is typically a two-stage process for a web view to be enhanced with new content or controls:
  - Customize the application to add capabilities.
  - Modify the web view using the **Visual Designer** to position the new controls or content.

## Define personal settings

Individual operators can define the following personal preferences in ***SYSPRO Web UI (Avanti)*** by selecting the **Personal Settings** option from the  icon (**Settings**) on the home page:

- Define the company date for all operators, or temporarily for the current run of ***SYSPRO Web UI (Avanti)***.



This is dependent on the operator having the correct security access.

- Reset the saved settings for window positions and grid layouts.

***SYSPRO Web UI (Avanti)*** automatically saves window positions and changes to grid layouts by operator. However, you can now reset these to their default values using the links provided.

- Configure your own **Office 365** credentials.

## Modify a grid

You can modify the contents of any ***SYSPRO Web UI (Avanti)*** grid by using the following capabilities:

- **Conditional formatting**

This lets apply formatting against any column in the grid based on simple rules.

- **Custom columns**

You can add columns to the grid based either on custom form fields or from master table data.



The custom columns that can be added are determined by the *keys* that are available in the grid columns.

- **Column sum | Column average | Row count**

You can select any numeric column to be either *summed* or *averaged*.

If you select to display a row count, this is then displayed in the grid footer for the first column in the grid.

- **Edit a macro**

You can create a script to execute against the grid for various events, such as when the grid is populated with content, or when a grid's contents are about to be submitted to the database.

## Add toolbar items to a web view

You can add toolbar items to a web view using the **Visual Designer**.

Select the **Add toolbar item** option from the left or right-hand side of the **Visual Designer** to add items to the left or right-hand side of your web view.



Toolbar buttons correspond to their equivalent in the core SYSPRO product.

## Automate startup parameters

You can configure **SYSPRO Web UI (Avanti)** to automatically run a program when you log into the system. Open the browser URL and append a question mark, followed by startup parameters using the following syntax:

```
?StartupParameters=/prog=xxxxxx /link=y
```

where `xxxxxx` indicates the name of the program and `y` indicates the entry to be used in the program.


### FOR EXAMPLE:

If you want to automatically launch the **Customer Query** program for customer 1 when opening **SYSPRO Web UI (Avanti)**, your browser URL should reflect the following syntax:

```
?StartupParameters=/prog=ARSPEN /link=1
```

The login page is displayed first if you haven't enabled the **Keep me signed in** option on the login page. The program defined in the startup parameter is then launched once you are successfully authenticated.

## Automate tasks

You can now create a series of tasks (i.e. programs) in **SYSPRO Web UI (Avanti)** that can be executed sequentially by selecting the **Task Automation workspace** option from the  icon (**Settings**) on the home page.

### FOR EXAMPLE:

You may want to create a month end procedure that must run a series of programs one after the other. This can be automated so that when you start to run the task group, all programs are automatically run one after the other until the group is complete.

A task item can run a program or report and can be scheduled to run on a certain day and, optionally, recur daily, weekly or monthly. Programs can also be automated so that they apply specific values to form fields.

When a task group has completed, the executed tasks are then displayed in the **Task Messages** grid.

## Move and re-size modal windows

Applications in ***SYSPRO Web UI (Avanti)*** are designed to display most information in a single page and, where appropriate, the use of pop-up windows enables additional information to be surfaced.

### FOR EXAMPLE:

You can view **Movements** and **Warehouse history** lists as pop-ups in the **Inventory Query** program.

Lists such as these are displayed by default in pop-up windows that can be re-sized and repositioned in the browser. However, you can change this behavior using the **Visual Designer** to make these lists appear in the single page.

Some windows are displayed as *modal*, meaning that you can't click behind the window and that you must first complete the task within the current window before returning to the previous screen.

You can now move and re-size these modal windows as required. The position and size of the window is then automatically remembered so that it is repositioned to the same location when the window is displayed again.



Modal window positions for ***SYSPRO Web UI (Avanti)*** are saved on the application server in the text file `\Settings\AVANTI\ModalWindowsAdditional_operator.txt`.

## SYSPRO Avanti Software Development Kit

The **SYSPRO Avanti Software Development Kit** lets developers create their own applications that connect to ***SYSPRO Web UI (Avanti)***.

A **Microsoft Visual Studio** extension (included in the SDK) provides templates for new projects (and controls used within those projects) together with a number of development productivity features. In addition, the extension allows for debugging of ***SYSPRO Web UI (Avanti)*** plugins and supports the creation of bespoke cards.

The **SYSPRO Avanti Software Development Kit** supports a variety of use cases, from basic customization and scripting in ***SYSPRO Web UI (Avanti)***, to entire embedded applications in the ***SYSPRO Web UI (Avanti)*** infrastructure.

You can still use VBScript customization for simple user interface customization and automation, but for more complex scenarios the **SYSPRO Avanti Software Development Kit** provides a powerful solution.

The benefits of this SDK over VBScript customization includes:

- Better performance.
- Full development environment of **Microsoft Visual Studio** with productivity extension.
- Intellisense and code completion.

- Live debugging of code with breakpoints.
- Access to the entire ***SYSPRO Web UI (Avanti)*** API.



Resources will be made available on the **SYSPRO Learning Channel**.

# 2020-R1

## **SYSPRO Rules Engine**

### Notifications and Actions

The usability of the **SYSPRO Rules Engine** has been extended to include the following actions within the **Rules Administrator** of **SYSPRO Web UI (Avanti)**:

Action	Description
Email	This action lets you send an email.
Workflow Action	This action lets you call into a <b>SYSPRO Workflow Services</b> operation.

# Technology Development



## 2020-R2

### Reduced file system usage

**SYSPRO 8** is on a journey to reduce files being persisted to the file system by migrating them to **Microsoft SQL Server**. This offers many benefits, such as helping simplify your backup strategy, improving performance, protecting your data and providing controlled access to third parties, where relevant.

Because of this, you will notice an increase in the size of your database once you update to **SYSPRO 8 2020 R2**. The increase in size will be proportional to the size of the data being migrated from the file system. Also note that the majority of the files uploaded to SQL Server are migrated to your system-wide database.

During the migration, the system will determine if your SRS Report Archive files are significant in size (over 500MB) in which case you can choose to defer the migration of these files to allow the rest of the upgrade process to complete and users to start transacting as normal.

Choosing to defer the import means that reports archived prior to **SYSPRO 8 2020 R2** won't be available for viewing until they are migrated. This is performed by running the **SRS Import Archive Files to SQL** program (*Ctrl+R > SRSPAL*).

A number of areas in the product are affected by this change.

#### Operator Settings

As part of the effort to decrease SYSPRO's footprint on the file system, you can enable the new **PERSIST OPERATOR UI SETTINGS TO SQL** setup option (*Setup Options > System Setup > System-Wide Personalization*) to store all operator UI settings files in the [SysSettings](#) table of the system-wide database (usually stored in the `\Base\Settings` folder).

## License File

From **SYSPRO 8 2020 R2** the **License Manager** is used to select and import a provided license. The license information resides in the **AdmSystemLicense** table of your system-wide database in **Microsoft SQL Server**.

From **SYSPRO 8 2020 R2** all software that requires the license will automatically locate the current license in the system wide database.

If you are using the **SYSPRO Cloud ERP** environment, the license import is applied automatically.

## SRS Reports and Documents

From **SYSPRO 8 2020 R2**, enhancements to SRS architecture cater for the migration of content to the system-wide database:

- Document and report printing
- Report archiving
- Report scheduling
- Report customization

The custom reports and documents mentioned above are automatically uploaded to **Microsoft SQL Server** during the minor database upgrade to **SYSPRO 8 2020 R2**

All future custom reports and documents, archived reports and documents and other SRS-related files will be stored in **Microsoft SQL Server**.

In addition, the document archiving architecture has been changed to save the archived documents to the company database when SYSPRO is run in a **SYSPRO Cloud ERP** environment.

## SWS Document Printing Activity

A new document printing activity (`SA_DocumentPrinting`) is available within **SYSPRO Workflow Services** so that invoices, order acknowledgments and delivery notes can be saved, emailed and printed as part of a workflow process (e.g. the capture of an order initiates a workflow that produces the document which is available for sending to the customer).

Prerequisites include:

- The **SYSPRO 8 Workflow Service** must be installed.
- The **SYSPRO 8 Reporting Host Service** must be installed.
- The **Server-side reporting using SQL** option must be selected against the **REPORTING CONFIGURATION** setup option and details must be configured for the **REPORTING SERVICE** setup option *Setup Options > System Setup > Reporting*.
- The **E.Net Service Details** must be configured in the **Maintain E.Net Service Details** program.





The activity needs to be added from the **Dependencies** pane as it is not added to the **Toolbox** by default.

# 2020-R1

## SYSPRO Avanti

A host of new capabilities has been added to SYSPRO's web-based platform.

### Multi-Factor Authentication

**SYSPRO Web UI (Avanti)** now supports **Multi-Factor Authentication** (i.e. the process of identifying a user by validating two or more methods of authentication from independent credential categories).

### SYSPRO Reporting Services

- Reports can be processed and viewed immediately.
  - Select **Process report and preview** to view the report as PDF in your default PDF viewer.
  - Select **Add to print queue** to print the report.



Both options also add the report to the report queue for later viewing.

- Reports can be archived using the **Report Archive** program. Archived reports can be viewed as PDFs and purged using this program.
- Report data can be exported to additional formats (e.g. `xls`, `csv`, `txt` and `xml`).
- Reports with Crystal Report parameters can be processed.

### Card builder

This lets you create customized cards based on business objects or `XML` files.

- Design a card from various layout types (e.g. tabs, section headings, carousels, accordions and tables).
- Map `XML` fields from SYSPRO business objects (or other `XML` files) to populate fields.
- Define and customize values of `XMLIn` fields.

### Themes

The look and feel of **SYSPRO Web UI (Avanti)** can be changed by applying a theme.

1. Select the **Themes** option from the **User name** field to use a theme.

### Keep me signed in

A **Keep me signed in** option was added to the **SYSPRO Web UI (Avanti) Sign in** window which lets users access **SYSPRO Web UI (Avanti)** without needing to supply login credentials.



Logon details are still requested if your credentials change or if you are signed out of **SYSPRO Web UI (Avanti)** using the **Sign out** option (instead of just closing the browser).

## Multiple Tenants for Office 365

The SYSPRO architecture now supports multiple tenants for **Microsoft Office 365**.

A **Microsoft Office 365** tenant is a regional location that provides cloud services dedicated to an organization (e.g. **Exchange Online, SharePoint Online, Teams**, etc). It falls within the overall **O365 Data Center** and can be seen as an organization's sandbox environment, housing all its digital assets (e.g. users, domains, subscriptions and data).

You can maintain multiple tenants in SYSPRO using the new **Office 365 Tenant Maintenance** program (*Program List > Administration > General Setup*) which stores the information in the **AdmOfficeTenants** system-wide table.

Once configured, you can use SYSPRO's **Personalize** program (*SYSPRO Ribbon bar > Home > Personalization*) to select the tenant to use when operators communicate with **Microsoft Office 365**.



If you have a single tenant or have already configured your system and operators accordingly, this works unchanged.

## User Interface changes

### System Setup/Setup Options

All the options from the **System Setup** program have been moved to the **Setup Options** program.

Review the **System Setup options moved to Single Setup program** highlight under the **Simplified Administration** banner for more details.

### VBScript Editor

The **VBScript Editor** program has been restructured to provide a simpler and streamlined look.

Loading the program takes you straight to the workspace area (previously you were presented with a window from which you first needed to select the field or form level event).

The **Variables** and **Field Properties** panes default to being docked together on the right-hand side of the screen (but can re-positioned as required).

From the **Variables** pane, you can access the **Events** hyperlink to quickly insert a field-level event.

The **Code Generation** drop-down combines various existing functions (e.g. call business objects, send push notifications, execute workflows, launch programs, and customize toolbar buttons).

The **View** drop-down lets you show or hide the **Sample Code Window**, the **VBS Modules Window**, and the **Notepad**.

## System Setup options moved to Single Setup program

The enhancement centralizes SYSPRO's system-wide and company-wide setup options into the **Setup Options** program.

The aim is to ease the workload of system administrators by letting them manage these options in a single location.



Administrators can also take advantage of extra functionality already available in the **Setup Options** program (e.g. using the search to locate options, as well as the import and export functions).

## Where to find the new options

The following table will help you navigate the transition of **System Setup** options to the **Setup Options** program by indicating where the new options are now located.

Location in the System Setup program	NEW location in the Setup Options program
General	General System Setup
Login Dialog	Login System Setup
Database	SQL System Setup
Date Format	General System Setup
Folders	General System Setup
Reporting	Reporting System Setup
	SQL System Setup
Espresso	Connectivity System Setup
E.Net Service Details	E.Net Service Details System Setup
Office Integration	Connectivity System Setup
Rules Engine/Harmony	Rules Engine/Harmony System Setup
	SQL System Setup
Artificial Intelligence	Artificial Intelligence System Setup
Email/SMTP settings	Connectivity System Setup
Password definition	Password Definition System Setup
Avanti	Connectivity System Setup
Multi-Factor Authentication	Login System Setup
Single Sign-On	Login System Setup

## System-wide Maintenance

This feature lets administrators place the entire system into maintenance mode. This solves the issue of having to maintain each SYSPRO company to prevent users from logging in while maintenance is in process (e.g. when upgrading to a new release).

The feature is enabled by switching on the **PREVENT LOGIN** setup option (*Setup Options > System Setup > General*). The SYSPRO and **e.net Solutions** login process first checks the system-wide configuration before checking the company-specific configuration to either allow or deny access to the system.

## Simplified Licensing

Managing your SYSPRO product licensing is now so much easier.

### Enhanced process

The process of importing SYSPRO licenses and applying them to one or more companies has been simplified with the **License Manager** program.

This new licensing platform (available from within the **Company Setup** program) enables the following:

- View current license information.
- Apply a new or current license across all existing companies.
- Apply a new or current license to a single company.
- Apply a new or current license to multiple selected companies.
- Change a company name to one of the licensed names.

One of the key benefits of the new **License Manager** is when you have any changes to your system-related license parameters (e.g. the number of Concurrent users, Point of Sale users, Espresso seats, Licensed Workflows, Analytics seats, Portal seats or other system-wide settings).

In addition, the process of applying an updated annual license is greatly simplified.

### License history

All `License.xml` files are saved with a unique file name in the `\Work\license.sav` folder and are recorded in the `AdmSystemLicense` table of the system-wide database.

This provides a history of all licenses that have been selected.

## Support for Large Rich Text Notes

SYSPRO's **Admin Notepad Editor (Rich Text)** has been standardized to support Rich Text Format (RTF) documents of any size.

You can also now insert images in the **Admin Notepad Editor (Rich Text)** program because of the increased file size support.



Images aren't included when printing documents like sales order acknowledgments, invoices, etc.

This facility is available in the standard product as well as **SYSPRO Web UI (Avanti)**.

## Notepad Date Stamp Standardization

When editing notes in various text editing scenarios in SYSPRO, the date stamp inserted is now standardized to use the **SHORT DATE FORMAT** (*Setup Options > System Setup > General*).



The date stamp format may differ from the previous format because of this standardization. However, you can now customize the format consistently across all note types.



You can override this at company level using the **OVERRIDE SYSTEM DATE FORMAT** option (*Setup Options > Company > General*) in which case the **SHORT DATE FORMAT** defined against that company is used.

## Multiple Monitor Support

To better support multiple monitor environments, the SYSPRO architecture responsible for window positioning and sizing was re-engineered for the login window, the SYSPRO main menu and subsequent windows.

This improves consistency in how windows are sized and positioned, particularly when extending your desktop across two or more monitors.

As before, SYSPRO defaults to display on the primary monitor. However, if you subsequently move the SYSPRO main menu to another monitor, all subsequent programs loaded from the menu are shown on the same monitor as the menu.

## Document Flow Manager

Various changes have been made to assist administrators in managing SYSPRO's **Document Flow Manager** module.

Affected programs

- DFM Document Queue Query
  - A **Workflow path** column (displaying the last successful step in the workflow) helps administrators establish where and why a document failed. This lets an administrator fix the error and resubmit the previously failed document for processing.
  - A **Resubmit** action is displayed in the **Action** column if a queue item fails and the system allows you to resubmit the file.
  - The **Date and time** indicates when the file was placed in the queue.
- DFM Service Maintenance
 

You can define the interval in which 0KB files should be deleted (at the **File delete interval** column).

## Enhanced Logout User Process

The SYSPRO architecture has been enhanced to simplify the process of logging out users and their associated SYSPRO processes when using the following programs:

- Display Users Logged in
- View Users
- Windows Task Manager

In addition, a new [AdmPidHistory](#) table has been added to the system-wide database to store details of processes linked to users that have been logged out.

### Simplified process

The ability to kill associated processes when logging out users resolves the issue of unknown SYSPRO processes on the application server with no information about the process or the user to whom it relates.

The **Logout function ends process** option has been standardized across the following programs and lets an administrator kill the associated SYSPRO process when logging out a user:

- Display Users Logged in
- View Users

Enabling the option applies for the current run of either program, so administrators can log out multiple users (as well as end the associated SYSPRO processes) without having to reselect the option.



When using this option to kill the associated process, the system also updates the operator logged in flag of the [AdmOperator](#) table. This ensures that concurrent license usage is updated when operators are logged out.

### Increased visibility

A new **Unknown process details** pane in the **View Users** program provides an administrator with insight into unknown processes resulting from a user being logged out.

It details the process information that was recorded in the [AdmPidHistory](#) table when the user was logged out without ending the process (i.e. with the **Logout function ends process** option disabled).

## MRP Optimized for SQL Server

This feature optimizes the MRP calculation for SQL without using the file system as a temporary scratch pad.

### Affected programs



- Requirements Calculation

The feature is *disabled* by default so that existing systems work unchanged. To enable the new MRP SQL Optimization, you must uncheck the new processing option: **Run calculation in legacy mode**.

If you are retaining the legacy processing method, then ensure that the snapshot folder still exists.



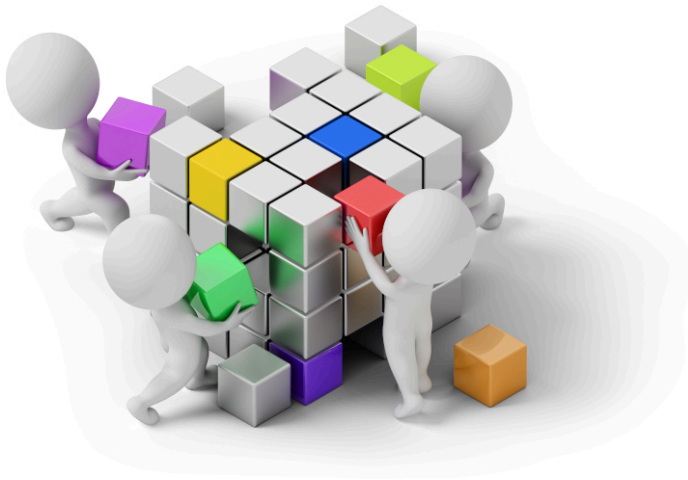
When using the new MRP SQL Optimization process, the progress bar only displays the text: **Processing Requirements Calculation** during the entire process.

- MRP Requirements Calculation object

The **MRP REQUIREMENTS CALCULATION OBJECT**<sup>1</sup> business object takes advantage of this feature to perform the MRP calculation.

<sup>1</sup>Business object: MRPTRC

# Integration Support



## 2020-R2

### Business Objects

#### Setup Objects

- The **WIP BY BRANCH MAINTENANCE**<sup>1</sup> business object lets you add, maintain and delete WIP branches.

#### Query Objects

- The **COM QUERY SRS DOCUMENTS**<sup>2</sup> business object is called by a generic search in SYSPRO Avanti to access SRS Documents in SYSPRO.
- The **COM QUERY SRS DOCUMENT TYPES**<sup>3</sup> business object is called by a generic search in SYSPRO Avanti to access SRS Document types in SYSPRO.
- The **INVENTORY STOCK TAKE TICKETS QUERY**<sup>4</sup> business object generates stock take tickets for items you are counting within a warehouse and prints the report using the **Stock Take Tickets** program.
- The **INVENTORY LABEL PRINT REPORT**<sup>5</sup> business object generates and prints up to 9999 labels for every selected stock code using the **Inventory Label Print** program.

<sup>1</sup>Business object: WIPSBN

<sup>2</sup>Business object: COMQDO

<sup>3</sup>Business object: COMQDT

<sup>4</sup>Business object: INVQ62

<sup>5</sup>Business object: INVQLP

- The **INTRASTAT TRIANGULATION ARRIVALS QUERY**<sup>1</sup> business object lets you report on all Intrastat arrival transactions, including each transaction's country of origin, destination state, triangulation role, shipping location and mode of transport.
- The **SA INTRASTAT TRIANGULATION DISPATCHES**<sup>2</sup> business object lets you report on all Intrastat dispatch transactions, including each transaction's country of origin, destination state, dispatch state, triangulation role and mode of transport.
- The **SALES ORDER LABEL PRINT REPORT**<sup>3</sup> business object generates and prints up to 9999 labels for selected sales orders or dispatch notes using the **SO Label Print** program.
- The **SRS QUERY FUNCTIONS**<sup>4</sup> business object scans through specific folders to find any appropriate files to import. Once a file is imported it is moved to the appropriate sub folder in the new `\Base\ReportingCustomized\BackUp` folder.

Storing the contents of the ReportingCustomized folder in SQL, helps SaaS environments retain any customizations and to help system administrators backup and restore SRS customizations as part of the System wide database backup.

<sup>1</sup>Business object: PORQEC

<sup>2</sup>Business object: SALQEC

<sup>3</sup>Business object: SORQLA

<sup>4</sup>Business object: SRSQRY

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## Business Objects

### Query Objects

- The **COM QUERY MFA OPERATOR HISTORY**<sup>1</sup> business object lets you query an operator's history information for multi-factor authentication purposes.
- The **QUERY SYSTEM SETUP OPTIONS**<sup>2</sup> business object lets you query the system options configured within the **Setup Options** program.
- The **TAX RETURN STATUS**<sup>3</sup> business object lets you query tax return transactions that are not printed, not submitted, and submitted for a single year and period or a range of year and period (highlighting tax lines that may not have been submitted).
- The **GTR DETAIL AMENDMENT JOURNAL QUERY**<sup>4</sup> business object lets you query the Gtr Detail Amendment Journal transactions.
- The **INVENTORY LOST AND FOUND WAREHOUSE QUERY**<sup>5</sup> business object lets you query inventory lost and found warehouse transactions.

### Transaction Objects

- The **PRODUCT CONFIGURATOR CALCULATIONS**<sup>6</sup> business object lets you maintain calculations of the product configurator. Calculations can be added, copied, deleted, and updated.
- The **PRODUCT CONFIG REPLACE WHERE USED**<sup>7</sup> business object is used by the **Configurator Replace Component Where Used** program.
- The **PRODUCT CONFIGURATOR DEPENDENCIES**<sup>8</sup> business object lets you maintain product configurator dependencies. Dependants (selection criteria and components) can be added and deleted.
- The **PRODUCT CONFIGURATOR INVALID SELECTION**<sup>9</sup> business object lets you add and delete invalid product configurator selections.
- The **PRODUCT CONFIGURATOR CRITERIA MAINTENANCE**<sup>10</sup> business object lets you add and delete product configurator criteria.

<sup>1</sup>Business object: COMQMH

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

<sup>3</sup>Business object: IMPQRS

<sup>4</sup>Business object: INVQGA

<sup>5</sup>Business object: INVQWL

<sup>6</sup>Business object: CFGTCL

<sup>7</sup>Business object: CFGTDF

<sup>8</sup>Business object: CFGTDP

<sup>9</sup>Business object: CFGTIS

<sup>10</sup>Business object: CFGTMC

- The **PRODUCT CONFIGURATOR OPERATION MAINTENANCE**<sup>1</sup> business object lets you add and delete product configurator operations.
- The **PRODUCT CONFIGURATOR MATERIAL MAINTENANCE**<sup>2</sup> business object lets you add and delete product configurator materials.
- The **PRODUCT CONFIGURATOR OPTIONS MAINTENANCE**<sup>3</sup> business object lets you add and delete product configurator options.
- The **PRODUCT CONFIGURATOR SELECTION MAINTENANCE**<sup>4</sup> business object lets you add and delete product configurator selections.
- The **POST SYSTEM SETUP OPTIONS**<sup>5</sup> business object lets you post system setup options for the **Setup Options** program.
- The **MRP REQUIREMENTS CALCULATION OBJECT**<sup>6</sup> business object facilitates a SQL-only version of the **Requirements Calculation**.
- The **SO DISPATCH NOTE CONSOLIDATION**<sup>7</sup> business object lets you consolidate dispatch notes for invoicing.
- The **SO CREDIT NOTE CHANGE KIT COMPONENT LNS**<sup>8</sup> business object lets you maintain credit note lines of a kit component.
- The **SO SALES ORDER CHANGE KIT COMPONENT LNS**<sup>9</sup> business object lets you maintain sales order lines of a kit component.

## Utility Objects

- The **MRP COPY TO SNAPSHOT UTILITY**<sup>10</sup> business object lets you copy all relevant live data of the **Requirements Calculation** to the SQL snapshot tables.
- The **MRP DEMAND UTILITY**<sup>11</sup> business object updates the **MrpRequirement**, **MrpDetailPegging** and **MrpMpsDetPegging** tables with existing demand (e.g. forecasts, sales orders, supply chain transfers, material allocations, quotations or store requisitions).

<sup>1</sup>Business object: CFGTML

<sup>2</sup>Business object: CFGTMM

<sup>3</sup>Business object: CFGTMO

<sup>4</sup>Business object: CFGTMS

<sup>5</sup>Business object: COMTSY

<sup>6</sup>Business object: MRPTRC

<sup>7</sup>Business object: SORTCD

<sup>8</sup>Business object: SORTCR

<sup>9</sup>Business object: SORTSU

<sup>10</sup>Business object: MRPUCS

<sup>11</sup>Business object: MRPUDM

- The **MRP FUNCTION CREATION UTILITY**<sup>1</sup> business object calls several utilities to handle the various phases of processing. It creates, grants permission, and deletes the necessary functions needed for the **Requirements Calculation**.
- The **MRP LOT EXPIRY UTILITY**<sup>2</sup> business object lets you build temporary lot expiry records to be depleted and creates lot expiry demand records for any remaining records.
- The **MRP LOW LEVEL CODE CALCULATION UTILITY**<sup>3</sup> business object lets you calculate the low level codes for all items using the Bill of Material (archived BOM) and Quotation structure tables, as well as the Work in Progress tables.
- The **MRP NETTING OFF UTILITY**<sup>4</sup> business object updates the [MrpRequirement](#), [MrpDetailPegging](#) and [MrpMpsDetPegging](#) tables with the existing supply (e.g. supply chain transfers, jobs, purchase orders, requisitions, goods in transit, inventory stock and non-stocked items).
- The **MRP NETTING OFF UPDATE UTILITY**<sup>5</sup> business object lets you reschedule specific and existing supply, and raise suggested supply.
- The **MRP SUPPLY UTILITY**<sup>6</sup> business object updates the [MrpRequirement](#), [MrpDetailPegging](#) and [MrpMpsDetPegging](#) tables with existing supply (e.g. supply chain transfers, jobs, purchase orders, requisitions, goods in transit, inventory stock and non-stocked items).
- The **POST MULTIPLE BIN UTILITY PROGRAM**<sup>7</sup> business object updates the bin as part of the continued effort to create utility programs during the purchase order receipt process.

<sup>1</sup>Business object: MRPUFS

<sup>2</sup>Business object: MRPULE

<sup>3</sup>Business object: MRPULL

<sup>4</sup>Business object: MRPUNO

<sup>5</sup>Business object: MRPUNU

<sup>6</sup>Business object: MRPUY

<sup>7</sup>Business object: PORURB



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