2020 Highlights

SYSPRO 8

Reference Guide

SYSPRO™
Simplifying your Success

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Feature Highlights: SYSPRO 8 2020 R1

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User Experience

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*) 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.

SYSPRO Avanti

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

Multi-Factor Authentication

SYSPRO 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.

  1. Select **Process report and preview** to view the report as PDF in your default PDF viewer.

  2. 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 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 Avanti* **Sign in** window which lets users access *SYSPRO Avanti* without needing to supply login credentials.

> Logon details are still be requested under certain conditions:

- If your logon credentials change.
- If you are signed out of *SYSPRO Avanti* using the **Sign out** option (instead of just closing the browser).

User Interface changes

This version of *SYSPRO 8* includes a number of significant 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**.

Simplified Administration

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
Login Dialog	Login
Database	SQL
Date Format	General
Folders	General
Reporting	Reporting
	SQL
Espresso	Connectivity

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

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

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 `Licence.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.

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 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**

SQL Health Dashboard improvements

The **SQL Health Dashboard** program was improved to provide quicker performance when analyzing the health of tables, columns and foreign keys on a company database.

The dashboard now also includes the following information:

Instance Information

- Connection driver

  This indicates the ODBC driver used when connecting to **Microsoft SQL Server**.

- Connection encryption

  This indicates whether the connection to **Microsoft SQL Server** is encrypted.

- Connection protocol

  This indicates the protocol used when connecting to **Microsoft SQL Server** (i.e. TCP, Named pipes or Shared memory).

Database Information:

- TDE encryption status

  This indicates if **Transparent Data Encryption** (TDE) is in use and the current status of the encryption.

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 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.

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.

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 sys-

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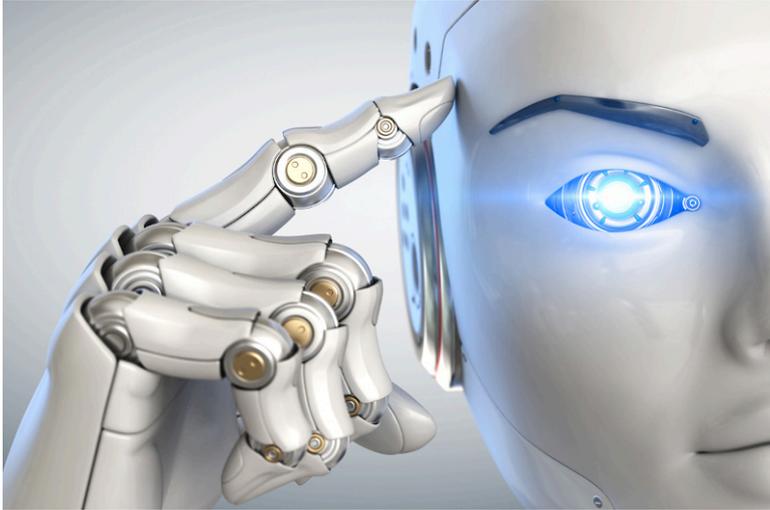
> When using this option to kill the associated process, the system also updates the operator logged in flag of the `AdmOperator` table. This ensures that concurrent license usage is updated when operators are logged out.

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).

Digital Technologies

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 Avanti*:

Action	Description
Email	This action lets you send an email.
Workflow Action	This action lets you call into a *SYSPRO Workflow Services* operation.

SYSPRO Bot

SYSPRO Bot Customization

The new **SYSPRO Bot Customization** program in *SYSPRO 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 **Espresso 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**.

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 Avanti*.

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

Manufacturing

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 new MRP SQL Optimization takes advantage of this new business object to perform the MRP calculation.

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.

Recall Management

The **Recall Management** feature now includes any traceable parent item that has been received into stock. This ensures it can be quickly and easily located in the supply chain.

By implication, it means that lot and serial traceable items received through jobs, inventory movements, backflushing or purchase orders are now included when selecting items you want to recall using the **Product Recall Selections Review** program.

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

Distribution

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.

SYSPRO Supply Chain Portal improvements

SYSPRO's portal architecture now caters for dedicated **PORTAL SUPPLIER** and **PORTAL 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 **Portal user** fields are maintainable within the **Options** pane of the **Operator Maintenance** program.

> The **Portal 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.

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 Branches
- 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 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.

Business objects for consolidating dispatch notes

A new **SO Dispatch Note Consolidation** business object lets you consolidate dispatch notes for invoicing.

You can use this business object to merge printed dispatch notes into a single invoice. You can consolidate dispatch notes that are either linked to a specific sales order or to a specific customer.

Once consolidated, the dispatch note status is updated to status `8 - CONSOLIDATED FOR INVOICING`.

Business objects for kit component lines

Business objects for credit note and sales order lines of a kit component can now be maintained.

The **SO Credit Note Change Kit Component Lns** business object lets you maintain credit note lines of a kit component, while the **SO Sales Order Change Kit Component Lns** business object lets you maintain sales order lines of a kit component.

Both business objects maintain the following:

Components of a kit type **K**:

- The price, price code and discount on optional and mandatory components.
- The quantity on optional components.
- The description on optional and mandatory components.
- The product class on optional and mandatory components.

Components of a kit type **S**:

- The quantity on optional components.
- The description on optional and mandatory components.
- The product class on optional and mandatory components.

Financial

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/or 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 have not yet been printed; printed but not submitted; and 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 an informed decision as to 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.

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).

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