

Technology Development

SYSPRO 8

Reference Guide

Published: November 2022



CONTENTS

Technology Development

2022	1
2021-R2	3
2021-R1	8
2020-R2	15
2020-R1	17
2019-R2	25
2019-R1	28
2018-R2	30
2018-R1	31

Technology Development

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



2022

Client-Server Scalability Improvement

The **SYSPRO 8** architecture supports a system environment variable on the SYSPRO Application server that is designed to improve reliability over an extended period.

This resolves connectivity issues, improves performance for **SYSPRO 8** sites with hundreds of concurrent users running **SYSPRO 8** in a client-server environment, and removes the need to periodically reboot your Application server.

Reduced file system usage

As part of the **SYSPRO 8** journey to reduce files being persisted to the file system, you can now store your customized VBScripts (usually stored in the `\Work\VBScripts` folder) within the [SysSettings](#) table of the system-wide database.

You'll need to enable the **PERSIST OPERATOR UI SETTINGS TO SQL** setup option (*Setup Options > System Setup > System-Wide Personalization*) to cater for this relocation.

This ensures that customization can be retrieved seamlessly in the event of a system crash, or loss of data on the file system, or a pod loss in a **SYSPRO Cloud ERP** environment.

You may notice an increase in the size of your database once you update to **SYSPRO 8 2022**; the increase in size being proportional to the size of the data being migrated from the file system.

Advantages of moving this data from the file system to the database includes:

- Centralized access to all related data
- Reduction of file system usage and maintenance
- Simplified portability of data and backup strategy
- Improved performance

Temporary File Handling

System administrators can now configure and manage the folder used to store SYSPRO temporary files.

Selected SYSPRO applications make use of temporary files that are created to store information temporarily - either for a program's temporary use, to transfer information from one program to another, or for transfer to a permanent file or database storage once complete.

2021-R2

SYSPRO Advanced Browse

The **SYSPRO Advanced Browse** feature consolidates SYSPRO's traditional browse look-ups into a single program, making it easier to administer and customize. The traditional browse look-up programs are typically accessed from the browse icon, or by pressing **F9**.



From **SYSPRO 8 2021 R2**, all new programs that require browses default to using the new advanced browse facility which is available for valid key fields on a toolbar, grid or form.

For the traditional browse look-up programs (accessed from the browse icon, or by pressing **F9**) you will need to enable the **ENABLE ADVANCED BROWSE** option (*Setup Options > System Setup > System-Wide Personalization*) to take advantage of the new advanced browse features.

SYSPRO eSignatures UX Improvements

The architecture of the **Electronic Signatures** system has been re-engineered to simplify and enhance the user experience of configuring eSignatures in **SYSPRO Web UI (Avanti)**.

The functionality of the legacy **eSignature Setup** program has been split into the following new programs (which are accessible both within the **SYSPRO Desktop** and **SYSPRO Web UI (Avanti)**):

- **Electronic Signature Configuration Setup**

This program lets you enable the **Electronic Signatures** system and create or maintain your eSignature configuration levels and their associated access control.

- **Electronic Signature Transaction Setup**

This program lets you configure specific transaction conditions against your eSignature configuration levels.

This assists system administrators who prefer to manage their administrative tasks in **SYSPRO Web UI (Avanti)**, as they can now configure the **Electronic Signatures** system using the web UI.

In addition, new import and export functionality has been introduced within the **Electronic Signature Configuration Setup** program that lets you import and export your eSignature configuration levels from one environment to another.



The **eSignature Setup** program is still accessible via the **CTRL+R** command and is fully functional in the SYSPRO core product, however this will be rendered obsolete with a later release of **SYSPRO 8**.

SYSPRO Avanti Enhancements

GL Financial Reporting

The **GL XML Report Viewer** program is available in **SYSPRO Web UI (Avanti)** from the **GL Financial Reporting** option of the **Financial Reporting** menu.


This lets you process GL financial reports based on a specific report code and allows for GL reports that have been designed for the XML Viewer to be rendered in the **SYSPRO Web UI (Avanti)** and previewed in PDF format.

Other capabilities include:

- Financial figures within the report include hyperlinks that let you drill down to the applicable account.
- The **Account Transactions** list view lets you query a GL code, post to the applicable account and drill down to transaction level.
- The **Transactions** list view allows you to view journal information and execute the following Zoom functions for a specific source against the journal:
 - General ledger
 - AP Expense Journal
 - AP Expense Journal
 - A/R Cash Posting Journal
 - A/R Invoice Detail
 - Inventory Journal
 - GRN Journal
 - WIP Labor Journal
 - WIP Part Billing
 - AP Disbursement
 - Cashbook Journal

Support Diagnostics

The **Avanti Event Viewer** (accessible from the  icon on the **Home** page) logs all events and calls to the system so that support personnel can identify and resolve technical problems that may arise.

The **Support Diagnostics** function (accessible from the  icon on the **Home** page) can also be used to help resolve issues with grid content not populating. Enabling this function retains grid files in the `\Base\Settings\HTMLUX` folder during the run of **SYSPRO Web UI (Avanti)** for the logged-in user. When exiting **SYSPRO Web UI (Avanti)**, these grid files are removed and the **Support Diagnostics** option automatically switched off.

User Interface

The user-interface includes the following improvements for a more intuitive and engaging user experience:

- **To-Do List**

You can display the **To-Do List** in *SYSPRO Web UI (Avanti)* (which lists activities that require your attention) by selecting the **Gear** icon () on the **Home** page, followed by the **Enable To-Do List** option.

Similarly, you can display the **To-Do List** in a web view by launching the **Visual Designer** and adding the **To-Do List Details** grid to your layout section.

- **Customizing Task Dialogs**

You can customize task dialogs to improve throughput, particularly on transactional screens. These customizations range from removing buttons and changing the default action button, to preventing the dialog from being displayed at all.

Currently, task dialog customization must be performed in SYSPRO using the **Customize Task Dialogs** program (accessible from the **Administration** tab of the **Ribbon bar**) however, these customizations are also applied when running in *SYSPRO Web UI (Avanti)*.

Centralized System Administration

As part of the continuing process to simplify SYSPRO configuration and consolidate the user interface, administrators can now manage the **Company password** and **Prevent logins** functionality from within the **Setup Options** program (*Setup Options > Company > General*).

This functionality was previously located within the **Company Maintenance** program.

Document printing using third party application

Administrators can now add multiple printer devices that enables the printing of PDF documents using any third-party application. Depending on the application you choose to install, these third party applications dramatically improve print quality issues experienced when using Type 3 fonts and dot-matrix printers. These applications integrate to **SAP Crystal Reports 2016** (used within SYSPRO) and let you silently print a PDF file with **Adobe Acrobat Reader DC** on your client machine.

Previously, SYSPRO required the underlying associated document information before it could print a PDF document. The file previously used to configure specific printer device names (`UserSrsDocumentPrint.txt`) has been replaced by this new functionality.

Considerations:

- This applies to SRS server-side document printing (i.e. your **REPORTING CONFIGURATION** setup option needs to be configured as **Server-side reporting using SQL**).
- **SAP Crystal Reports 2016** is required to leverage the benefits of this enhancement.
- There are various methods that you can use to print your PDF documents:
 - Print using the preview window
 - A forced print using an installed instance of **Adobe Acrobat Reader DC**
 - Opening the document using the Windows Default Viewer. This doesn't apply to all documents, excluding PDFs which are easily printed using the SYSPRO Reporting Host Service and **SAP Crystal Reports 2016** (client-side printing).

Database Optimization: GL and Inventory control records

Inventory and General Ledger control records within the SYSPRO database architecture have been redesigned for greater scalability to allow the independent management of individual key numbers (e.g. registers, journals, etc.). This addresses the need to cater for the locking and, by extension, queuing of processes of the current control tables while a process retrieves and uses the next keys held in these tables.

Benefits

- Greater scalability for high-volume sites
- Less excessive blocks and bottlenecks in high transaction environments

Control records (which have been a core part of the SYSPRO architecture for many years) are used to store certain values that are updated continuously by multiple transactions (e.g. Financial next journal and register numbers, Lowest unprocessed journal numbers, MTD and YTD values per module, etc.). In high-volume environments (with high user activity or high automated transactions) these control records are read and updated constantly and can potentially cause record locks and result in SQL deadlocks and rollbacks.

From ***SYSPRO 8 2021 R2***, the next key and next journal columns have been removed from the [GenControl](#) and [InvCompanyCtl](#) control files and redefined as individual rows in a new set of tables that are defined by module:

- GL register numbers: [GenNextKeys](#)
- Inventory journal numbers: [InvNextKeys](#)

The next numbers are now allocated in a self-contained SQL transaction by the **COM FETCH NEXT KEY AND UPDATE AUDIT**¹ business object and an audit record is created to track when this number was allocated. The transactional data is then created in a separate SQL transaction and used to update the audit record to indicate that the transaction has been completed.

This prevents record locks by ensuring that the [InvCompanyCtl](#) and [GenControl](#) records aren't accessed or locked as frequently.

To assist with auditing purposes, the [InvNextKeyAudit](#) and [GenNextKeyAudit](#) tables can be used for the following:

- Trace the next numbers allocated (where no transaction was created).
- Explain missing transaction numbers in the transactional tables.

In addition, the `Lowest Unprocessed Journal` numbers (used for locating unprinted journals and unposted GL integration records) have been removed from these control records (they were originally introduced to speed up the processing time in C-ISAM environments and have little value in SQL). Using the capabilities in SQL enables SYSPRO to locate unprinted journals and unposted GL integration records quickly and easily.

¹Business object: COMNXX

2021-R1

SYSPRO Avanti Enhancements

User Interface

The user-interface includes the following improvements for a more intuitive and engaging user experience:

- GeoLocation support

When working with address fields in a web view, you can now use the **Resolve Address** feature to ensure that the customer or shipping address is correct, or the **Map Directions** feature to get directions using Google Maps.



You can configure how GeoLocation works within **SYSPRO Web UI (Avanti)** using the **Setup Options** program (*Setup Options > System Setup > System-Wide Personalization*).

- Multimedia object inclusion

Using the **Visual Designer** or **Customize Application** programs you can now select the **Multimedia** button to add multimedia objects (e.g. images, documents, etc.) associated with key fields.

- Multiple web page handling

The **SYSPRO Web UI (Avanti)** infrastructure has been enhanced to allow for a new browser tab to be opened for a given URL.

- Simplified interface customization

When adding a custom form field using the **Customize Application** program, you can now select to automatically add the field to the web view, without having to use the **Visual Designer**.

- Easier program navigation by role

A **Program List** card that mimics the functionality of the **Avanti Program List** in the hamburger menu has been added to the **Visual Designer** to allow easier navigation of programs by certain user roles.

- Program name and version visibility

For improved debugging purposes, you can now access the (**Admin Shift+F7 System Information**) program from the **Gear** menu to view the name and version of a program in **SYSPRO Web UI (Avanti)**.

- Quicker grid entry

Editable grids in **SYSPRO Web UI (Avanti)** that support the notion of automatically adding rows now enable you to paste the contents of your clipboard directly into the grid.

- Help popups & group headings on forms

To assist you when configuring new or existing setup options within the **Setup Options** program, form fields now include descriptive group headings and you can hover over fields to view Help text for each option.

Enhanced initialization service

The **SYSPRO 8 Avanti Initialization Service** has been enhanced to improve performance and enable more concurrent **SYSPRO Web UI (Avanti)** user sessions.

Increased stability and reduced memory usage

A number of enhancements have been made to increase stability and reduce memory consumption, including:

- The ability to limit the number of **SYSPRO Web UI (Avanti)** instances.
- Improved support for comments in cells.
- Minimal CPU consumption when idle.
- Decreased memory usage per user upon initial login to the home page.
- Increased robustness when handling rapid data entry in data grids (specifically to prevent data corruption in grid rows).

Reduced file system persistence

The footprint on the file system has been reduced by moving non-static data (e.g. setting files) to the SQL database.

When you enable the **PERSIST OPERATOR UI SETTINGS TO SQL** setup option (*Setup Options > System Setup > System-Wide Personalization*) the `ADMPRO.DAT` indexed file is converted to the [AdmProControl](#) table in the system-wide database and thereafter any records are stored in this table. The `ADMPRO.DAT` file contains information about custom fields, table master and scripted fields that have been added to forms.

App store plugin

An App Store plugin has been developed that allows you to activate or deactivate SYSPRO applications in **SYSPRO Web UI (Avanti)**. The `SYSPRO.AvantiAppStore.Avanti.Plugin.dll` plugin is accessible from the hamburger menu.

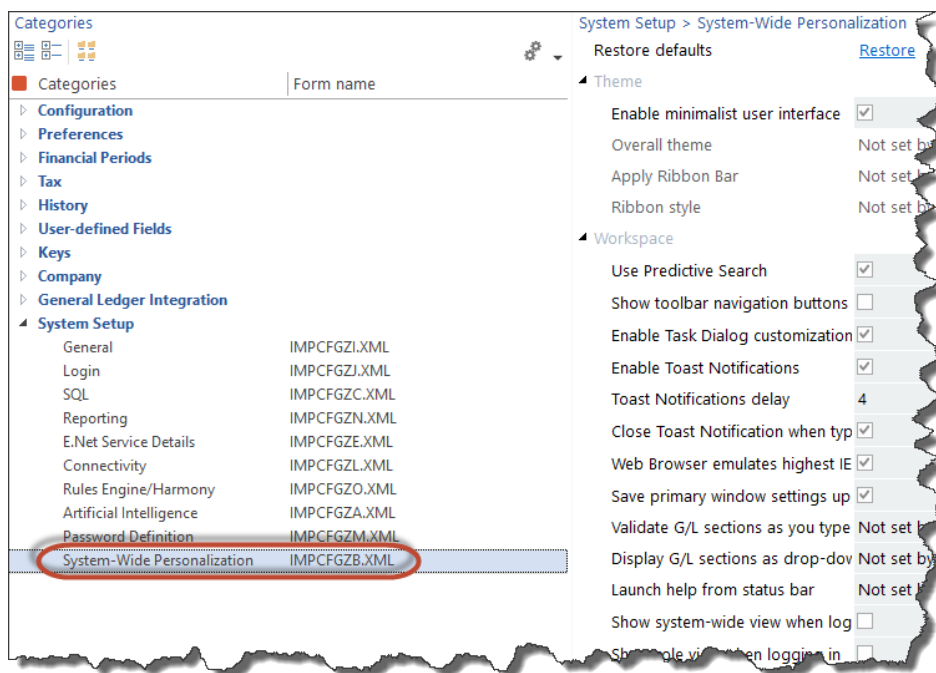
User Interface changes

System-wide Personalization/Setup Options

The previous release outlined the consolidation of all the options from the **System-wide Personalization** program to the **Setup Options** program.

At the time, you could still run a standalone version of the **System-wide Personalization** program (i.e. IMPFRB) from the SYSPRO Ribbon bar or using the **Run a Program** function (CTRL+R).

From the **SYSPRO 8 2021 R1** release, this program is no longer available and all settings must be managed from within the **Setup Options** program (*SYSPRO Ribbon bar > Setup > Setup Options > System Setup*):




Reduced file system usage

As part of the journey to reduce file system persistence, when running **SYSPRO 8 on-premise** you can opt to retain the following RTF and CMS data in the SQL database (instead of the file system):


- RTF notepad documents attached to entities
- CMS Activity body RTF documents
- CMS Activity attachments
- CMS Organization lists



This functionality is available from the new **Migrate Files To SQL** program (*Program List > Administration > General Setup*) that lets you migrate these files to your SQL database (and vice versa). You can also run the program from the **Migrate Files to SQL** option from the

 **Functions** menu of the **Setup Options** program.

You can migrate these files to your SQL database and vice versa using the **Migrate Files To SQL** program (*Program List > Administration > General Setup*).

 Alternatively, you can access this program via the **MIGRATE RTF FILES TO SQL FROM FILE SYSTEM** or **MIGRATE RTF FILES FROM SQL TO FILE SYSTEM** hyperlink against the **RTF AND CMS FILES IN SQL** option in the **Setup Options** program (*Setup Options > System Setup > System-Wide Personalization*). The name of this hyperlink changes depending on the current state of your file storage.

Advantages of moving this data from the file system to the database includes:

- Centralized access to all related data
- Reduction of file system usage
- Simplified portability of data and backup strategy
- Improved performance
- Provision for enhanced scalability in future releases

SQL Optimized SRS Document Printing

During the **SYSPRO 8 2020 R2** release, the *custom* SRS Document Print XML control files were migrated to **Microsoft SQL Server** as part of the initiative to reduce file system usage.

Continuing on this journey, the setup and printing processes for SRS Document Printing is now optimized to reduce file persistence and address the overhead of loading the control information into memory when using SRS Document Printing.

The *standard* SRS Document Print XML control files and templates are now loaded into a set of three global SQL temporary tables for each instance of SYSPRO as they are required:

- Standard document types
- Standard document samples
- Available archive fields

In addition, the SRS Document Print programs that read the control files are now SQL-optimized for faster retrieval and updating of data. This improves performance, eliminates the use of in-memory collections and reduces the scope of resource locks.



The scope of the resource lock is now reduced to only lock the document type that is being maintained and the document that is being maintained or designed (i.e. multiple users can now maintain different document types and different documents at the same time).

Licensing Changes

SYSPRO's licensing system has been extended for both **SYSPRO 8 on-premise** and **SYSPRO Cloud ERP** sites.



The **e.net System Manager** is required to access these new modules.

SYSPRO Ken the BOT

The BOT infrastructure and technology (available as an early adopter product for the past few **SYSPRO 8** releases) is now a purchasable, licensed module.

Tax Connectors

The following modules are now available for licensing to run in **SYSPRO Web UI (Avanti)** and the core **SYSPRO 8** product:

- Avalara Tax Connector
- Vertex Tax Connector

Enhanced Diagnostic Capabilities

To assist service personnel in providing speedy resolutions, the diagnostics capability of **SYSPRO 8** has been extended to record a log of identified problems in SQL Server for current and future analysis. A *Black-box* capability has also been introduced to record what was happening on a system prior to failure. Recording the information in SQL is vital for the **SYSPRO Cloud ERP** offering where the file system cannot be used to persist information.

SYSPRO Run Time Errors

When the SYSPRO Run Time System (RTS) detects a problem, diagnostic files are now written to the `\Work\Diagnostics` folder using a naming convention that includes the date and time. The current contents of the black box are also appended to the existing log, providing a trace of the events leading up to the RTS error.

SYSPRO64.DLL exceptions & Client-server failures

A single log file per exception or message is written to the `\Work\Diagnostics` folder instead of all exceptions or messages being concatenated into a single file. This simplifies the SQL Server handling of log files on an individual basis and improves the performance during the upload process. It also lets you check each exception or message as an individual record in the [AdmDiagDetail](#) table.

Micro Focus unhandled exceptions

If an unexpected error occurs in the underlying run time when you log into SYSPRO, the system first verifies whether the `mfdebug.log` file exists in the `\Base` folder before moving it to the `\Work\Diagnostics` folder. The system then creates the new `mfdebug.log` file for the current

unhandled exception in the `\Base` folder.

This effectively retains a record of all exceptions instead of just the last example (previously, the original file was overwritten by a subsequent unexpected error).

SYSPRO Cloud ERP Service Accounts

The introduction of Service Accounts in **SYSPRO Cloud ERP** aims to provide controlled access for selected SYSPRO personnel and partners to assist with various support related tasks like implementation, system configuration and training.

SYSPRO Cloud ERP administrators can now designate an operator as a service account, assigning the email address of the support person to the account (the email address is the unique identifying attribute used as part of the cloud authentication).

Although the service account operator can access the **SYSPRO Cloud ERP** environment without affecting the Named User licensing, the local site administrator retains full control over the account (i.e. the service account is treated as a regular user and all the standard access permissions, logging and auditing capabilities are available). These service accounts have no effect on **SYSPRO 8 on-premise** sites.

To implement this feature, the account status of the operator must be enabled within the **Operator Maintenance** program (i.e. the **Service account** option must be enabled), as well as the **SYSPRO Cloud ERP** Active Directory (managed by the **SYSPRO Cloud ERP** team).

SRS Dynamic Connection String for third-party reports

New customization capabilities in **SYSPRO Reporting Services** allows the SYSPRO company database connection string to be dynamically set at run-time when processing third-party SRS reports. This effectively allows the same report to be used across multiple companies.

Whereas standard SRS reports in SYSPRO are typically driven by business objects that query data from the company database to which you are connected, third-party SRS reports (such as Crystal) were designed using a specific data source connection that was fixed per report. In the past, to run the same report in all companies, you had to copy the report to each company and configure the connection string for each report, for each company.

From **SYSPRO 8 2021 R1** there is a new **Use current company database for ODBC data** option available within the **SRS Report Control**).

When processing third-party SRS reports, this option allows the **SYSPRO 8 Reporting Host Service** at run time to dynamically update the connection string to the database that you are currently logged into.

If you then switch SYSPRO companies and run the same report, the data source automatically points to the currently logged-in company database for which you are processing the report. This effectively reduces the burden on report management and maintenance across multiple companies, as the same single Crystal report can now be used across multiple companies.

Considerations:

- This option uses the credentials configured against the **SRS REPORTING DATABASE CONNECTION** setup options (*Setup Options > System Setup > SQL*).
- This option is configured per report and applies to any third-party report developed using the ODBC (RDO) connection (including sub reports attached to standard SYSPRO reports).
- The report control file is defined at system-wide level. Therefore, when enabled, it affects reports that have been defined at system, company, role, group or operator level.
- This only applies to SRS Report Printing (server-side and client-side) and has no effect on SRS Document Printing.

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-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.

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

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 `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.

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 OKB 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**¹ business object takes advantage of this feature to perform the MRP calculation.

¹Business object: MRPTRC

2019-R2

SYSPRO Web UI (Avanti)

A number of new capabilities have been added to SYSPRO's web-based platform.

SYSPRO Supply Chain Portal

The **SYSPRO Supply Chain Portal** allows users beyond a SYSPRO site to connect, interact and transact using the **SYSPRO Web UI (Avanti)** HTML5 user interface.

Adding Portal users to your SYSPRO configuration provides external user access to specific functionality (using a dedicated user interface and menu system) based on the portal features available.

Features currently available from the **SYSPRO Supply Chain Portal**:

- Request for Quote System:
This lets you collaborate with your suppliers by automating the quote process and enabling suppliers to action an RFQ.

Translation

All fields in **SYSPRO Web UI (Avanti)** can be translated into a different language (with the exception of the logon screen).

This is applied when the language is configured within the **System Setup** program of the **SYSPRO Desktop**.

Support for Large Rich Text Notes

Notepads that have been built into a SYSPRO application (or Customized Panes that use the notepad control) can now be added to a web view to be surfaced in **SYSPRO Web UI (Avanti)**. There are two types of notepads: simple text notepads and Rich Text Format (RTF) notepads.


The rich text notepad displays a special toolbar with all the formatting options. This toolbar does not appear for a notepad that only supports simple text (e.g. the **Additional Notes** in the **Customer Query** program).

Considerations:

- In SYSPRO, all complex notepads are stored in RTF format. Because this format is not supported in a web browser, it needs to be converted to HTML format for rendering in **SYSPRO Web UI (Avanti)**. The converse is also true - when saving notes entered in **SYSPRO Web UI (Avanti)**, the system must convert the HTML format to RTF format.
- If the notepad in SYSPRO includes a **Save** button, then this will also be shown in the notepad toolbar of **SYSPRO Web UI (Avanti)**.

- As in SYSPRO, notes in ***SYSPRO Web UI (Avanti)*** are automatically saved where appropriate (e.g. there is no **Save** button in SYSPRO's main menu notepad because any notes entered are automatically saved when you exit SYSPRO).

Visual Designer by Role

You can now design web views by role in ***SYSPRO Web UI (Avanti)***. From within a ***SYSPRO Web UI (Avanti)*** program, select **Design Web View by Role** from the **Customize**  icon and then specify the role for which you would like to design the web view.

Customized Pane support

Toolbar buttons for **Customized Panes** are now surfaced in the Visual Designer and can be added to a web view.

Gantt, Pie and Funnel chart support

You can now add Gantt, Pie and Funnel charts to visually represent data in ***SYSPRO Web UI (Avanti)***.

Global help support

The SYSPRO Online Help can be accessed by pressing **F1** in ***SYSPRO Web UI (Avanti)***.

Forgotten password

The **Forgot Password** functionality (which allows operators to reset their SYSPRO passwords without administrator assistance) is now available for ***SYSPRO Web UI (Avanti)***.

Workspaces

You can define multiple workspaces in the home menu, when it is not associated with a role.

Additional VBScript Support

Although VBScript provides functions and sub-routines, basic date/time and string manipulation, math functions, user interaction, error handling, and regular expressions, additional functionality can be added using ActiveX technologies.



VBScript Desktop Alerts are now surfaced as Toast Notifications in ***SYSPRO Web UI (Avanti)***.

The following VBScript functions are now supported for grids in ***SYSPRO Web UI (Avanti)***:

- OnPopulate
- OnSubmit
- OnRowSelected

- OnDbClick
- OnLinkClicked
- OnAfterChange

Additionally, the `OnDELPressed` and `OnChecked` functions are now supported for customized pane list views.

Sort search by relevance

The order of preference or relevance that is displayed in search results (based on the search term or phrase entered) returns more accurate and relevant results.

The relevance of results and weighting is determined by the order in which the fields are displayed, or ordered in the search. You can now configure whether relevance is applied against a search using the **Search Configuration** program in the *SYSPRO Desktop* version.



If you have previously created your own customize searches, the relevance option is not automatically applied to them. If you want to enable relevance, you will have to do it manually.

Diagnostic Extract Utility

The **Diagnostic Extract Utility** lets you supply support teams with relevant information about the configuration and usage details of all companies in your SYSPRO environment. The aim is to facilitate the diagnostic process for the speedy and efficient resolution of issues you may encounter.

The extracted information is encrypted and compressed before being emailed to SYSPRO for analysis and troubleshooting by the relevant support team.



This program is intended for advanced support purposes only and must not be used unless directed by an appropriate SYSPRO support entity.

Notepad

SYSPRO's **Notepad** (rich text and plain text) has been standardized to support larger text files. This is available in the core product as well as *SYSPRO Web UI (Avanti)*.



The **Admin Notepad Editor (Rich Text)** is still limited to 32,000 bytes of data, but this will be changed in a future version.

2019-R1

Avanti Change Password

SYSPRO Web UI (Avanti) lets users change their own password when logging in, reducing workload on system administrators.

This facility is available from the login screen, similar to the **SYSPRO Desktop** version.

SQL Managed Instances

SYSPRO running on Azure provides you with a choice of running **SQL Managed Instance** or SQL Server running on a Virtual Machine (VM).

With **SQL Managed Instance** – a cloud-based managed database - you provision the SQL environment based on CPUs, Memory and Disk usage, and SQL Server is automatically configured and enabled for you. There is, therefore, no need for you to provision a separate Windows Server VM and then install and configure SQL Server.

Benefits:

- Simplified SQL environment setup.
- PaaS environment - Automated patching and version updates, automated backups and high availability.
- Reduced management overhead and TCO – Improved IT flexibility and responsiveness.
- Flexibility to scale-up (and down) as required.
- Ability to exchange existing SQL Server licenses for discounted rates on SQL Managed Instance.

Hotfix Notification Maintenance

The new **Hotfix Notification Maintenance** program gives you more control over your site deployments.

Benefits:

- View who has conducted deployments on your site.
- Maintain who receives hotfix notifications.

Roaming Users

Roaming Users is the technology that provides a consistent personalized experience to each SYSPRO user, regardless of the client PC they use.

In our aim to make SYSPRO simpler, a new system-wide personalization has been added making it easy to configure SYSPRO to support Roaming Users.

The concept of Roaming Users, configuring your server environment and the new system-wide personalization option has been explained in the new technical guide: **SYSPRO - Roaming Users**, available from the **Resources** section.

Load Balancer process recycling

The **SYSPRO 8 e.net Communications Load Balancer** efficiently distributes network traffic to servers.

The resource usage of this service can grow beyond reasonable limits, which affects performance. To combat this, it now supports several settings that control when worker processes are recycled.

Benefits:

- Periodic recycling of worker processes.
- Detection and termination of hanging processes.
- Improved performance.

LCT Bill of Landed Costs - Copy function

The **Bill of Landed Costs** program lets you copy a bill of landed costs from a specific stock code to a single, a range or a defined selection of stock codes.

Custom Forms for Warehouse Inventory Control

The **Warehouse Maintenance** program lets you add and save custom forms for a warehouse.

2018-R2

Improved Login UX

The login screen for **SYSPRO 8** has been improved:

- Simplified visual appearance of login dialog
- Incorporating Forgot password functionality

Relevant Hotfix Visibility

Enhancements around hotfixes that now enable:

- Administrator can see and zoom into relevant hotfixes.
- Mandatory or customer-specific hotfixes are shown.

Improved Third Party Support

SYSPRO 8 Custom Help now allows developers to ship help content for their own apps using custom packages.

2018-R1

SYSPRO Web UI (Avanti)

SYSPRO Web UI (Avanti) is SYSPRO's web-based user interface developed in HTML5. It lets you access SYSPRO using a web browser, on any device, on any platform, from any location, at any time.

It's available to anyone who has installed **SYSPRO 8** (whether on-premise, in the cloud, or both) using a concurrent single license. This lets customers choose the user interface best suited to the specific task at hand.

Benefits:

- Enables you to work where and when you want

Access and experience the same SYSPRO solution on all devices 24/7 no matter your location - whether in the office, on the shop floor or on the move, you can choose the device that best suits the task at hand.

- Familiar experience

SYSPRO Web UI (Avanti), with its consistent user interface, uniquely gives you the same SYSPRO ERP experience through a browser on any device, without having to learn a different operating system.

- Quick and easy access

If you're in manufacturing or distribution; whether you're upsizing, setting up a new company or expanding your multinational organization to new territories, SYSPRO's web interface gives you quick and easy access to SYSPRO through a browser.

- Flexibility and choice

Select the best user interface for the role, or specific task at hand.

- Engaging user experience

SYSPRO's web interface is easy to use, intuitive and responsive, providing you with a simplified, engaging and rewarding experience.

- Personalize your workspace

The **SYSPRO Web UI (Avanti)** web interface lets you personalize and design your workspace without the need for development skills.

Single Setup Program

SYSPRO's **Setup Options** program provides a central location from which implementers can quickly configure SYSPRO modules (and make information easily available to support staff) and significantly speed up the process to resolve issues.

Office 365

Microsoft Office 365 lets you access the latest versions of **Word, Excel, PowerPoint, Outlook, OneNote**, etc., wherever you go and across all your devices.

With **Microsoft Office 365** integrated to SYSPRO, you don't need a separate desktop installation of **Office 365**; you can integrate or combine SYSPRO data into an **Office 365** document directly from **Office 365**.

Toast Notifications

Toast Notifications are notification windows displayed briefly on the screen to alert you of a condition, before disappearing automatically without requiring any operator input.

Toast notifications with only a single button are presented as **auto-expiring** messages.

Task Dialogs

Task Dialogs are notification windows that display information requiring your response before continuing.

You can customize these dialogs to simplify processes and improve throughput - particularly on transactional screens.

Customizations range from removing buttons and changing the default action button, to preventing the dialog from being displayed at all.

Predictive Search

The **Predictive Search** facility in SYSPRO automatically shows suggested search results as you type text into any key field in the product (e.g. stock code, customer, supplier, etc).

The search uses a web service to interrogate the database and return values based on a pre-defined configuration.

Search Configuration

Search Configuration allows for the configuration of searches in the Predictive Search.

Benefits:

- You can configure the Predictive Search to filter on key fields, rows and order by, to return records while typing.
- Predictive searching helps you effortlessly get to the information you need by filtering the top records in the database based on what you have typed.

Improved Deployment

The software upgrade technology has been simplified and standardized for **SYSPRO 8**, allowing you to upgrade when it suits you.

Enhancements are made available as periodic releases several times a year, on top of which you can install hotfixes and security or other issues as they are identified and resolved.

Benefits:

- You can now plan to install a release with the features you require and have the stability of only installing hotfixes as required.
- This removes many of the issues with the monthly porting processes used in prior versions.

SQL-Optimized

SYSPRO 8 leverages Microsoft SQL Server's capabilities to provide enhanced performance, improved scalability, more robust security and increased system availability. Less planned downtime means more time to get the business benefits of **SYSPRO 8**.

Enhancements include:

- Reduced file system usage and improved security.
- Initial support for SQL as a Service.

Benefits:

- Our drive for simplification has also made the system easier to set up and administer, reducing requirements for valuable and scarce resources.
- Our benchmarks show up to 30% improvement in performance and scalability.

Improved System Availability & Scalability

Balancing Optimization

Balance functions in certain modules were either tied together with month-ends, which are decoupled, or form part of a 'day-end, week-end or month-end' function. Moving the checking of imbalances to the SQL Health Check Service removes the need to run the balance function in the module.

In addition, if an imbalance is identified, the out-of-balance correction function can be run to specifically target only the issues encountered.

Benefits:

- This is a SQL-only facility. By targeting SQL, we can vastly reduce the current time taken to perform this function - in some instances from hours and minutes to seconds - thus greatly improving system availability.

Re-engineered e.Net architecture, re-engineered server architecture, simplified service infrastructure

Benefits:

- Improved memory handling and scalability with 64-bit architecture.

Health Check WIP – Balance function

The Health Check Service innovation is designed to reduce scheduled downtime to a bare minimum, improving your core business process availability.

Ensuring the health of your database is paramount. With SQL Health Check, you are able to ensure that all tables, columns, indexes, keys etc. are as they should be and, if required, to add missing data.

Benefits:

- Reducing scheduled downtime.
- Balancing and correction optimization.
- Ensuring the integrity of your database.

Improved Balance Routines

To optimize month-end and year-end processing, the **Balance** functions in the following modules have been created as separate business objects and are no longer automatically included in the month-end or year-end processing:

- Accounts Payable
- Accounts Receivable
- General Ledger
- Cash Book
- Asset Register
- Purchase Order
- Work in Progress

Previously, the balance function was always automatically performed in conjunction with the month/year end routines.

Benefits:

- Improve productivity with faster month-ends



www.syspro.com

Copyright © SYSPRO. All rights reserved.
All brand and product names are trademarks or
registered trademarks of their respective holders.

