

# Highlights: Administration

SYSPRO 8

Reference Guide

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# Simplified Administration

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



**SYSPRO 8** architecture focuses on Microsoft SQL Server, providing enhanced performance, greater scalability, improved security and increased system availability.

## 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.

The areas of the product that are affected by this change are as follows:

#### 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.

## 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 SP 8
- SAP Business Objects BI .NET SDK Redistributable 64bit 4.2 SP 8
- 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.

## 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

## 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.

## 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**

## 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
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

## 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.

## 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 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).

# 2019-R2

## Optimized SRS Document Printing performance

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

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

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

### Document Batch Printing

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

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

### Document Archiving

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

### Document types

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

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



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

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

## Multi-Factor Authentication

**Multi-Factor Authentication** is a process that identifies a user by validating two or more authentication methods from independent credential categories. This ensures that a user is only granted access after successfully presenting two or more pieces of evidence to the authentication mechanism.

In SYSPRO, the traditional user name and password has been bolstered by the addition of Email and Google authentication to improve security during the login process.

- **Email authentication** sends an email to MFA-defined operators containing a Time-based One-time Password (TOTP) required as part of login verification.
- **Google authentication** uses an app to generate a QR code for first time user configuration and a Time-based One-time Password (TOTP) is required as part of the verification process for subsequent logins.

## Single Sign-on

**Single Sign-on** in SYSPRO provides a simple to setup and robust method of using **Microsoft Active Directory (AD)** to control SYSPRO users.

Once configured, it enables a complete single sign-on experience as SYSPRO users are authenticated by **Windows** and then simply use a shortcut to run SYSPRO without being prompted for a user name and password at the login screen.

It means that a SYSPRO site can use **Microsoft Active Directory (AD)** to add, change, disable and delete operators virtually seamlessly. Any changes to user attributes automatically reflect against the SYSPRO operator without manual intervention.

### *Benefits*

- Increased security around SYSPRO logins (you can lock-down users and only allow them access to SYSPRO using their specific operator code).
- Convenient administration of SYSPRO operators managed by **Microsoft Active Directory (AD)**.
- Simplified login process for SYSPRO operators.

## Maintaining SQL Users

As an administrator, you no longer have to create and configure SQL logins for SYSPRO operators using **Microsoft SQL Server Management Studio** before capturing the SQL login and password details against the operator in SYSPRO.

This is now possible from within SYSPRO, with functionality added to the **System Setup** and **Operator Maintenance** programs. The process creates the following for a SYSPRO operator:

- SQL login
- SQL user



This is used to access the relevant databases with the required permission access enabled (i.e. `DataReader` and `DataWriter`).

## 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.

## SYSPRO Installer Application

The following capabilities were added to the **SYSPRO Installer Application** to improve and enhance the deployment functionality:

- Update SQL Server credentials
- Update deployment service credentials
- Run the deployment service as named user
- Rename a server/machine
- Install SYSPRO Additional Services
- Clone machine or deployment group
- Manage hotfix notifications

## 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 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.

## Use System-wide SMTP

This feature solves the issue of a SYSPRO administrator having to capture the same SMTP email options for each company in the system.



# 2019-R1

## Security Settings Dashboard

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

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

### *Benefits:*

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

## 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.

# 2018-R2

## SQL Health Dashboard

The **SQL Health Dashboard** provides SYSPRO Administrators and SQL Database Administrators a one-stop-shop for viewing and managing the system for high availability.

The dashboard displays information on both the system and company databases to assist in identifying potential problems, as well as enabling the repair of certain issues found within the databases.

## Improved Login UX

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

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

## Forgotten Password

This lets you reset your SYSPRO passwords without requiring the assistance of a system administrator (you're typically locked out of the system after exceeding a pre-defined number of login attempts allowed).

You can request a password reset from the SYSPRO login screen (select **Forgot Password**) and are then notified via email that a request for a password reset has been received and that the password has been reset. The email includes a temporary password which is valid for a specified time period. When next you log into SYSPRO using the temporary password, you'll need to enter a new password.

*Benefits:*

- Password change email notification
- Login exceeded email notification
- Operator self-service reducing requirements for administrative resources
- Notification and logging for traceability
- Forgot password using new system-wide email settings

## 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

## 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.



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