

# Unknown Processes

*SYSPRO 8 Technical Article*

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## SYSPRO Help and Reference

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# SYSPRO 8 Unknown Processes

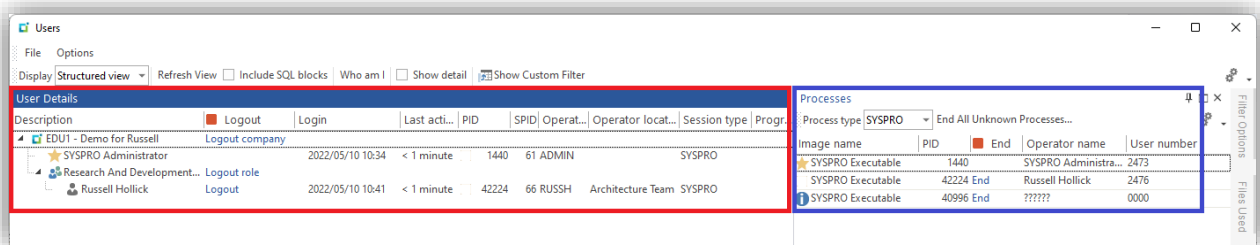
This document positions SYSPRO Unknown processes and some common remedies.

It is aimed at SYSPRO service personnel and SYSPRO system administrators.

## WHAT IS AN UNKNOWN PROCESS?

The **Logout Users** app (*Menu > Administration > Logout Users*) (IMPUSN) shows information about SYSPRO users and their associated processes on the app server.

The following screenshot shows the main components.



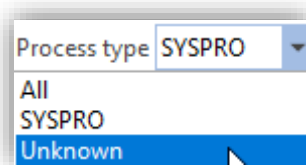
The section on the left (highlighted in red) shows rows from the user table.

The section on the right (highlighted in blue) shows SYSPRO Processes running on the app server (processes named `SYSPRO.EXE` or `SYSPRO64.EXE`). It also correlates these Windows process id's (PID) with rows from the user table.

If a corresponding row is found, then the **Operator name** and **User number** is shown.

If no corresponding row is found, then the name is showed as **??????** and the User number is shown as **0000**. These are **Unknown processes** and is the focus of this document.

This pane has a filter to only show 'Unknown' processes.



## HOW IS THE USER TABLE MANAGED?

When a user is authenticated and the main SYSPRO menu is shown in both the SYSPRO 8 Desktop UI and SYSPRO Web UI (Avanti) a row is inserted into a system-wide table (`AdmCurrentUsers`) with information about the user (if a user runs a second instance, it is also shown as a separate row in the user table).

The row information includes:

- Operator code and name to identify the user
- The Windows process id (PID)
  - In a client-server environment, this is the server-side (`SYSPRO64.EXE`) Windows process id (PID) on the app server.
  - In a standalone or Avanti environment, this is the main executable (`SYSPRO.EXE`) Windows process id (PID) on the app server.
- The SQL Server process id (SPID)
- The program(s) that the user is running at the current time:
  - This could just be the menu (shown as `IMPMEN`) or additional applications depending on the current user's application usage.

The **Logout Users** app queries the user table and correlates that information with SYSPRO related processes (`SYSPRO.EXE` and `SYSPRO64.EXE`) on the app server.

As a user runs various applications, the user table is updated to reflect the current list of application programs being used.

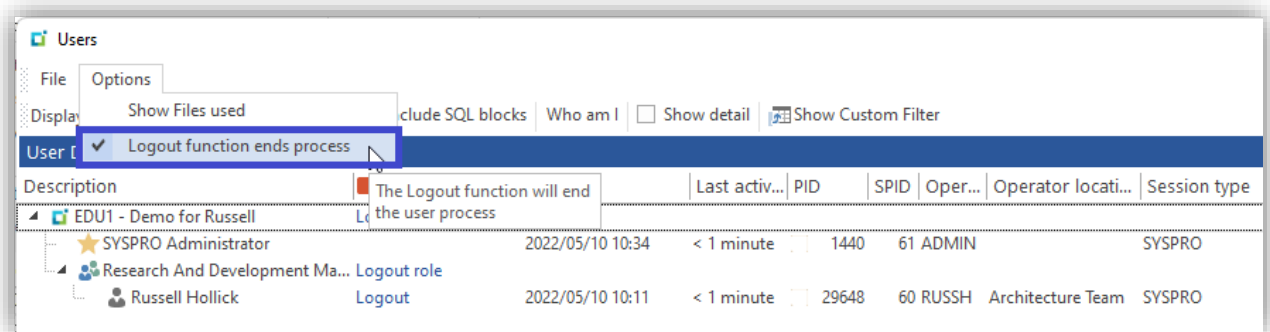
When a user exits the menu (SYSPRO desktop UI) or uses the logout function (SYSPRO Avanti UI) the user row is removed from the user table and the SYSPRO process exits.

## WHAT CAN CAUSE AN UNKNOWN PROCESS?

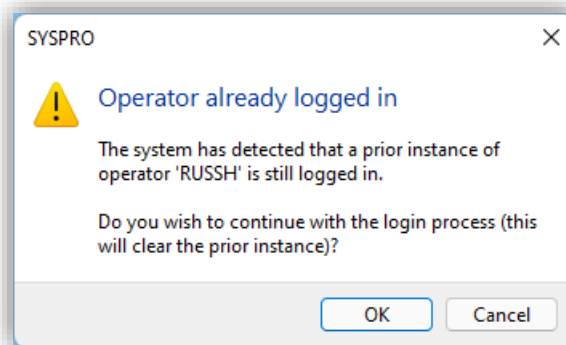
When a SYSPRO executable is running on the App server and there is no corresponding entry in the user table, you will have an **Unknown process**.


Reasons for this may include:

- You have used the **Logout Users** app to *logout* processes (which removes the entry from the user table) but the program was unable to *kill* the SYSPRO executable.
  - There is a menu choice: *Options > Logout function ends process*



- If selected (the default) when you use one of the **Logout** functions, the system removes the entry from the user table and attempts to kill the SYSPRO executable. This is the preferred option.
- If deselected, when you use one of the **Logout** functions the row is removed from the user table, but the SYSPRO executable remains running on the app server and will show as an 'Unknown process'. This is not recommended.
  - It is also possible that even if you have enabled the **Logout function ends process** option that your instance of SYSPRO is unable to kill the process. Although rare, this could happen. Just as using the Windows Task Manager **End task** function does not always terminate a process).
- If a user logs into SYSPRO and the system detects they are already logged in, the system displays a message and allows them to continue with the login process (and clear the prior instance) as reflected in the following message:



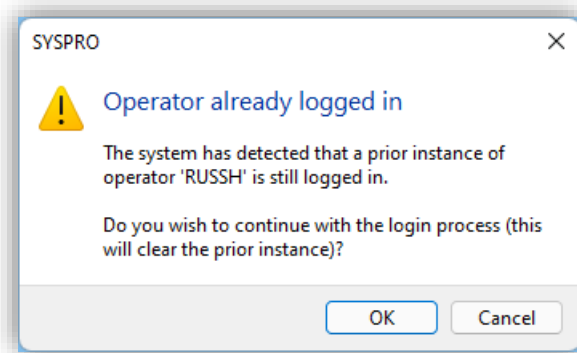
- 
- This removes the previous row from the user table and then logs the user in as normal - creating a new row in the user table.
  - If the previous SYSPRO executable associated with the user was still running on the app server, then the prior SYSPRO executable will appear as an Unknown process. This is because that prior SYSPRO executable's process id (PID) does not have a corresponding entry in the user table.
  - See below for possible reasons you may receive the 'Operator already logged in' message and possible remedies.
  - A third party has removed a row from the user table.
    - Third parties should never insert, change, or delete rows in standard SYSPRO tables. Doing so will cause the system to behave unexpectedly and may have other unintended consequences.

## WHY DO I RECEIVE A MESSAGE – OPERATOR ALREADY LOGGED IN?

Against the operator table (`AdmOperator`) there is a single row, one for each operator. Against the operator row is a flag indicating whether the operator is already logged in.

When you login, the flag is set to **Y** and as you exit normally the flag is cleared.

If you login and the flag is already set to **Y** then you will receive the message as shown below:



If you choose to continue, any prior row(s) in the user table relating to this operator code are removed and the login process continues as normal. This includes adding a new row to the user table.

Therefore, the reason you see this message is when a user has not exited SYSPRO normally (gracefully).

This could include any reason that someone exited SYSPRO and did not deliberately close the menu in the SYSPRO Desktop UI or use the Logout user function in Avanti. Examples include:

- The user shut down their windows client PC while they were running SYSPRO
  - Embedded code in SYSPRO warns Windows that SYSPRO is still active and therefore a shutdown is not ideal. However, the user can continue the shutdown, and in most cases Windows will timeout and shut down anyway.
- Desktop UI
  - The user used the Windows Task Manager (or terminated an apparently unresponsive session) to kill the SYSPRO client process.
  - Any network failure between the SYSPRO client and the app server can cause the communication to fail. Often the server-side process will attempt to wait indefinitely for the client to continue - leading to an *orphaned* server-side SYSPRO process.

Again, the user will often use the Windows Task Manager to kill the process or simply shut down their PC.





- Avanti UI

The user closed the browser (or closed a browser tab running SYSPRO) without using the logout function

It should be noted that both the SYSPRO Desktop UI and SYSPRO Web UI (Avanti) will attempt to detect the above failures. However, because of the unpredictable nature of these unexpected terminations or failures, applications may not be able to respond gracefully.

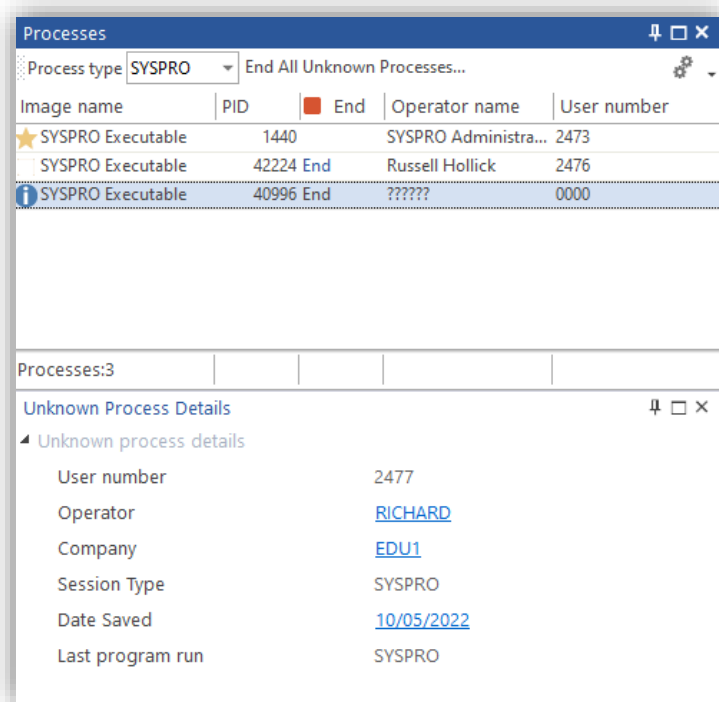
The most common reasons are:

- Users shut down their PC or close their browser (if Avanti)
- Unreliable or intermittent network connections between the client and the app server.

## CAN I FIND OUT ANY MORE INFORMATION ABOUT AN UNKNOWN PROCESS?

Even though the app server has a SYSPRO process (SYSPRO.EXE or SYSPRO64.EXE) with no corresponding entry in the user table, it can be useful to see more information about the SYSPRO executable. The additional information could be used to establish a pattern as to why the process is unknown.

If you click on an unknown process (operator name shown as ??????) the **Unknown Process Details** pane is refreshed with any information that the system has stored against that process id.



In the above example, the last time that a SYSPRO executable was run with the process id (PID) 2477 was by operator RICHARD; company EDU1 running a SYSPRO 8 Desktop UI (can also show Avanti); the date when this process information was last saved; and the user was running the SYSPRO menu (if another app was running then its name will be shown).

This information may help determine why this user has an unknown process.

Occasionally, the **Unknown Process Details** information is not available or shows a very old process.

## ANYTHING ELSE THAT CAN BE DONE TO REDUCE UNKNOWN PROCESSES?

As an unknown process is often caused by someone logging in after their system has failed (either by the user terminating the process, or the network connection being unreliable) anything to help increase the network reliability can help.

### NETWORK TIMEOUTS AND POWER SAVING OPTIONS

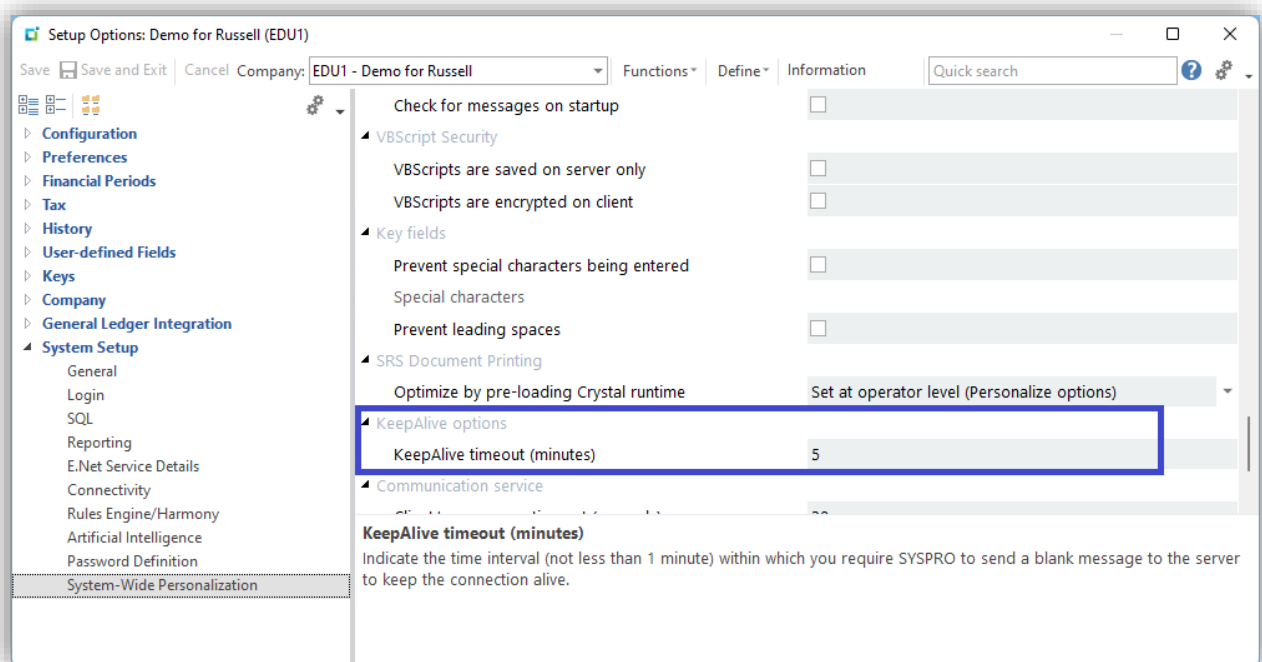
One area that we have observed relates to networks (routers, network cards, etc.) having a timeout function where (if no network traffic has occurred within a specified time such as 10 minutes) the network connection is terminated. This often also appears as a power saving option against network cards or related device drivers.


In SYSPRO, the symptom to the user is that the system is working normally but when they pause for any reason (e.g. take a phone call, speak to a colleague, etc.) and return to their SYSPRO application, it appears unresponsive. Their only choice is to use the Windows Task Manager to kill the SYSPRO client process, or to shut down their Windows PC.

When they next login they will receive the **Operator already logged in** message which (assuming they continue) will remove the prior row from the user table. This will result in an **Unknown process**.

One way to mitigate this network timeout is to set a system-wide personalization option so that SYSPRO sends a network message every so often, preventing the network timeout from occurring.

*Menu > Setup > Setup Options:*





Select a **KeepAlive** timeout that is lower than the network threshold for its timeout.

When set, SYSPRO will send a small message every X minutes to prevent the network from timing out.

## TRANSITION TO A WI-FI NETWORK WHILE SYSTEM IS IN USE

An additional possibility is where the SYSPRO Client is a notebook computer, and the user undocks their PC from an ethernet cable to use a local Wi-Fi network.

This change in network typically breaks the connection to the app server Communication service, leading to an unresponsive client.

# SYSPRO Administrator Checklist

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The following checklist provides a SYSPRO administrator with some guidelines to reduce the number of Unknown processes and provide the best user experience.

- Educate users about exiting SYSPRO gracefully.
  - Don't shut down Windows or use the **End Task** function unless the system is unresponsive.
  - SYSPRO Web UI (Avanti) users should log out of SYSPRO rather than close the browser.
- Add an appropriate **KeepAlive** timeout under System-wide personalization to help prevent the network disconnecting or going to sleep.
- Set an operator timeout so that after a specific time interval, such as 10 minutes, if the system has not been used it will prompt the user for an operator password or logout users if they are on the menu.
- Periodically logout all users at a time when the system should not be in use.
- Verify that network and other device drivers don't have power saving modes enabled and don't shut down or timeout when it detects no network usage.
- Verify network stability on an ongoing basis.



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