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Workflows Java Client Troubleshooting Checklist

The purpose of this document is to provide INFOhio Providers with troubleshooting techniques for identifying and/or resolving performance problems with the Workflows Java Client. It is recommended that providers use this as a "checklist" to gather information from their users and to keep track of which potential sources for problems have been investigated and which have not.

Determine the scope of the problem:

Frequency:
- How frequently is the problem occurring?
- Is it only happening at certain times of the day?

Extent:
- Occurring on one computer only
- Occurring at all computers using Workflows, but in only one library
- Occurring at multiple libraries / all libraries, but isolated to one district
- Occurring at just one school district or occurring at multiple school districts at the same time
- Occurring at all school districts at the same time or sporadically
- Can you replicate the problem at your ITC when logged on as ADMIN? When logged on as the user?

Scope within the application:
- Is the problem isolated to specific functions (check-in, check-out, SmartPort, etc.)
- Does the problem get worse as the day goes on or as more check-in/check-outs are completed?

Losing connection / Workflows closing unexpectedly
- Does the loss of connection occur after the computer has been idle?
  - Some Windows machines incorporate power-saving features that will cause computers to turn off the monitor, disk drives, and/or networking adapters while the computer is idle for an extended period of time.
  - Find POWER OPTIONS in your Control Panel on computer.
    - Set the "Turn off hard disks:" to "Never."
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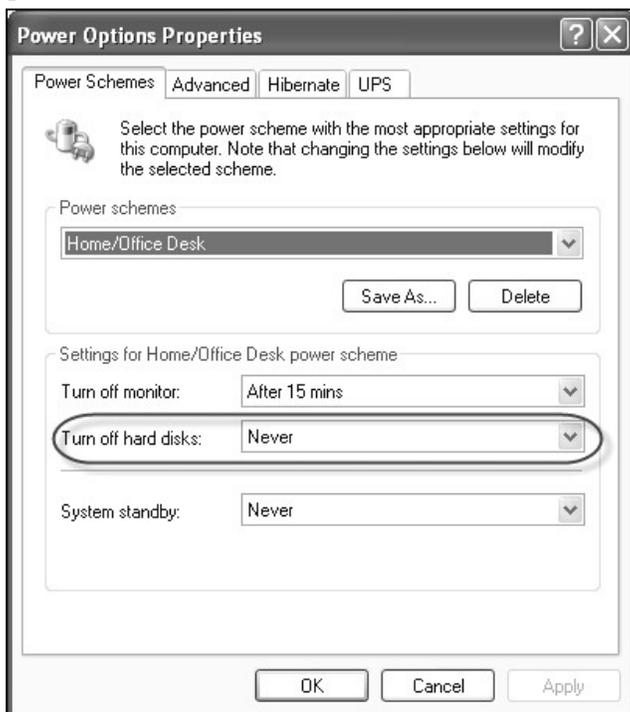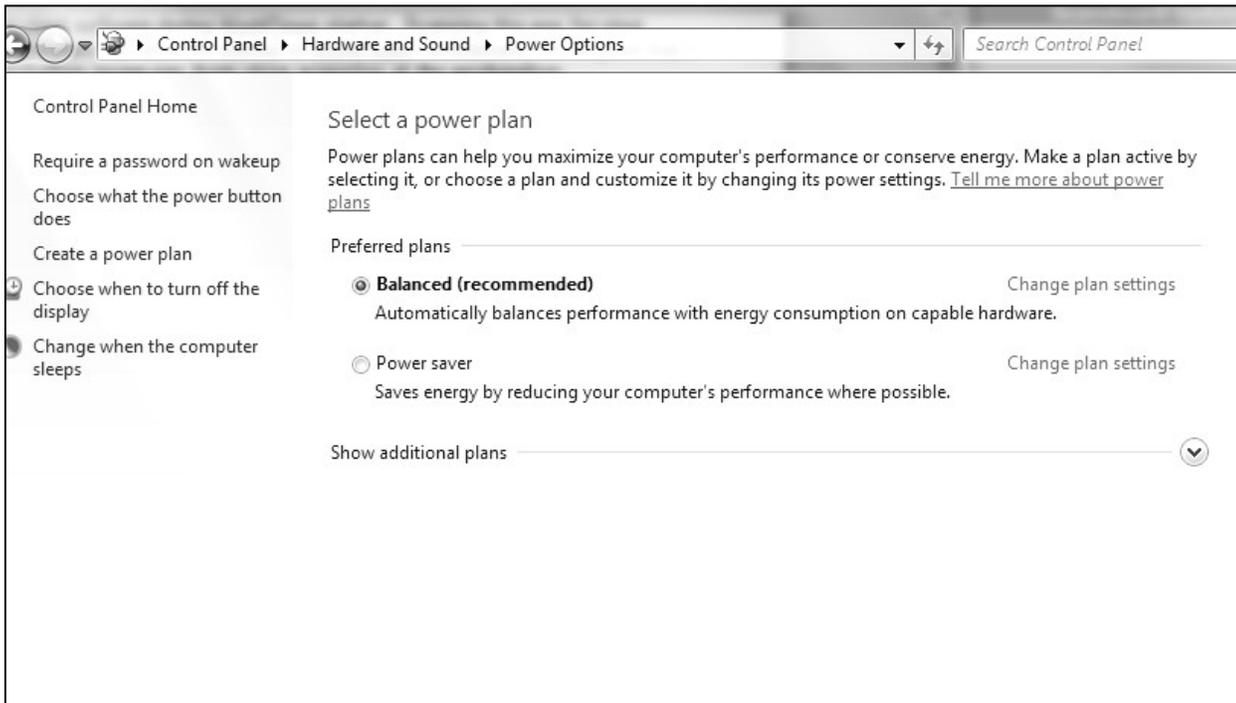
- For the network connection, uncheck the "Allow the computer to turn off this device to save power" feature (accessed through the DEVICE MANAGER on your computer).
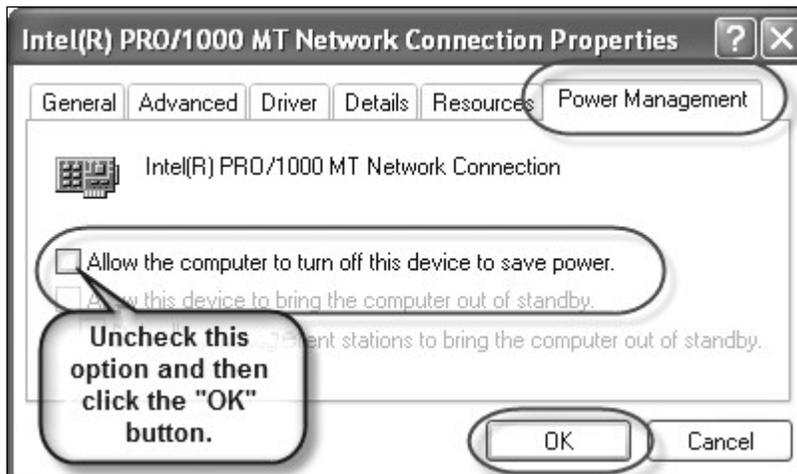
- o Similarly, Apple computers have an Energy Saver feature found by going through the System Preferences/Energy Saver. It is recommended that Optimization setting be set to "Better Performance."
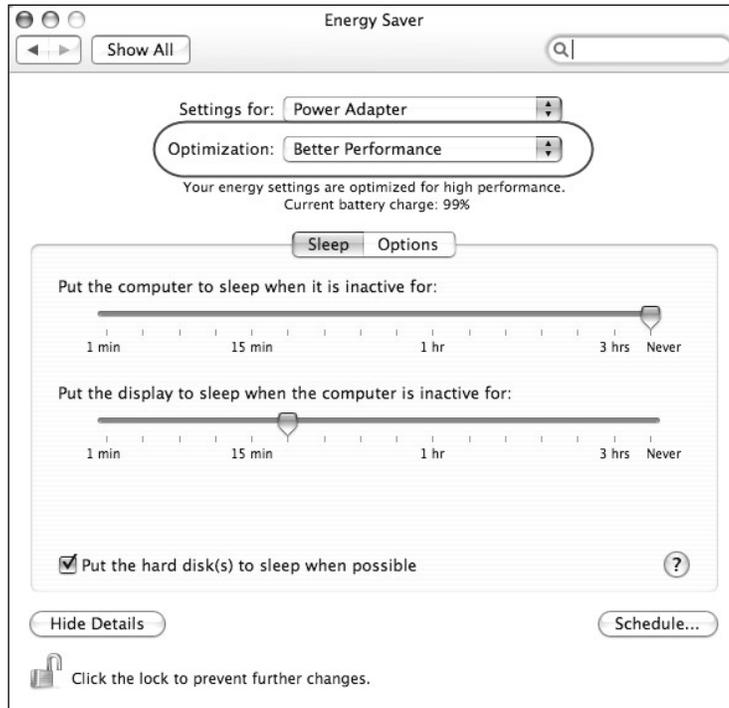
- o It is not uncommon for a firewall to close an open connection if there has not been any traffic for a period of time.
- o Disable the Screen Saver or use only screen savers that are pre-installed with the operating system.

- Losing packets – Workflows is rather susceptible to the loss of network connectivity including the loss of packets. Work with your networking group and ask them to assist you and the technology coordinator determine if packets are being lost.

- Using wireless network connectivity is discouraged. If they are using wireless network connection, ask them to run a physical cable to the computer instead and disable the wireless network connection on the computer.

- Sophos Antivirus includes HIPS (Host Intrusion Prevention System) components that will flag and quarantine some files that are utilized in the Workflows library software, causing it to unexpectedly terminate. When the files are flagged, the user should click "authorize" in the HIPS notification window.

- If using Windows XP, be aware that if Microsoft's Indexing Service is enabled, it might interfere with WorkFlows. If there is a lack of keyboard activity the indexing service begins. If the user interacts with the computer during the indexing, it might take several seconds to stop indexing before allowing users to continue. As a result of the delay, the process might have timed out, resulting in an error message.

Workflows Freezing

- Is the entire Workflows application frozen or is it just the check-in/check-out screens?

  - Make sure your users NEVER minimize an alert or "hiding" an alert behind an active window.. The alert should always be closed or otherwise be properly addressed. Minimizing / hiding the alert can cause the associated wizard to "freeze" and, if not using "Multiple windows mode", can cause the entire Workflows application to appear to be frozen. Users should have the TABBED WINDOWS property set to eliminate this problem.

  - On at least two occasions, we have learned that the users were opening many, many wizards. Again, to eliminate this problem, the TABBED WINDOWS property should be set as a default (see installation instructions).

  - If possible, program the scanner to have a re-read delay. Scanning the same barcode twice while performing a check-in can cause the cursor in Workflows to lose focus making it seem as though it is frozen. If the scanner cannot be programmed to have a re-read delay, advise the user to go to the "Help" menu and select "About…" for the cursor to focus properly.

  - If the java client is to display an alert but a barcode is scanned before the alert can be displayed, the cursor is "lost" and the user might think that the client is frozen. The "Help/About" workaround can be used for this scenario as well,but, the question that must be asked is, "Why is it taking too long for the alert to appear?" Is a barcode being scanned twice as it passes beneath the scanner? Does the computer meet all of the required specifications? Is the network too slow?

- If the computer does not have a sound card or speakers, disable the sound settings within Workflows properties. If they do have a sound card, make sure they have the most up-to-date drivers for the sound card.

Workflows Performing Slowly

- Define SLOW (NASCAR drivers think driving on the Interstate is slow). A two second delay between scans is normal and the delay can be a bit longer when switching to a new user during check-out. Encourage the user to use a stop watch to get accurate times

- Make sure the virus scanner is NOT scanning the "javaw.exe" application. Also check when virus scanning of the computer is scheduled to run and determine what type of traffic is being scanned. Obviously the computer will run slower when a virus scan is being done on the computer itself. If the virus scanner is scanning the communication between Workflows and the server hosting Symphony, that will slow the performance of Workflows as well

- Confirm the computer configuration (RAM, CPU, etc.) are correct. The required and recommended configurations are noted in the Java installation document

- Are they using other applications on the computer at the same time? Encourage the user to limit the number of applications they are using while using the Workflows application. Are the other local applications running slowly (ex: Word)? Are other NETWORK applications running slowly (Web 2, Web browsers, emulator)?

- Try using http://www.speedtest.net/ to help test network speed that the school is experiencing. Using http://www.speedtest.net/ is *not* a definitive test, but will allow you to see if the network connection is fluctuating.

- Try using tracert and ping with the "-t" parameter to monitor the response to your Symphony server, to the gateway / router, etc. Be advised that some ITCs and/or schools have blocked ping traffic or have throttled ping traffic giving unreliable results. You must work with network staff to determine if this is type of traffic is allowed / restricted. The time should consistently be very short. Using ping with the "-t" parameter can also allow you to see if the response times are fluctuating significantly, which would also indicate a network issue.

- Does the problem occur at certain times of the day? Ask your networking staff to closely monitor their network usage at these times. There may be something else occurring at the school at the same time contributing to network delays.

- Using wireless network connectivity is discouraged. If they are using wireless network connection, ask them to run a physical cable to the computer instead and disable the wireless network connection on the computer.

- Disable unnecessary items in the properties of both the check-in and check-out wizards.

  o For the check-in wizards, the two behaviors that will have the most significant impact is disabling the "'item not checked out' error in a separate window" and disabling the "display of user information."

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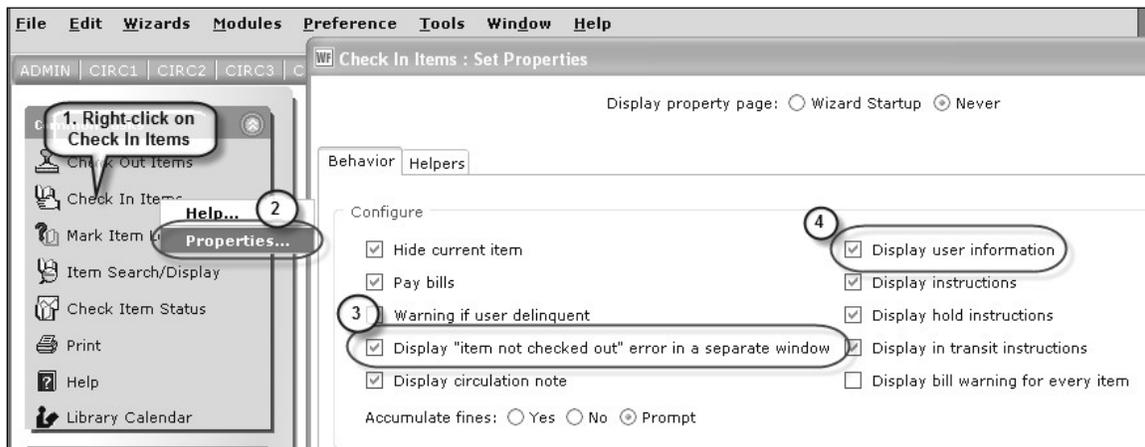
o   For the check-out wizard, the behavior that will have the most impact is disabling the "display of user blocks in a separate window."
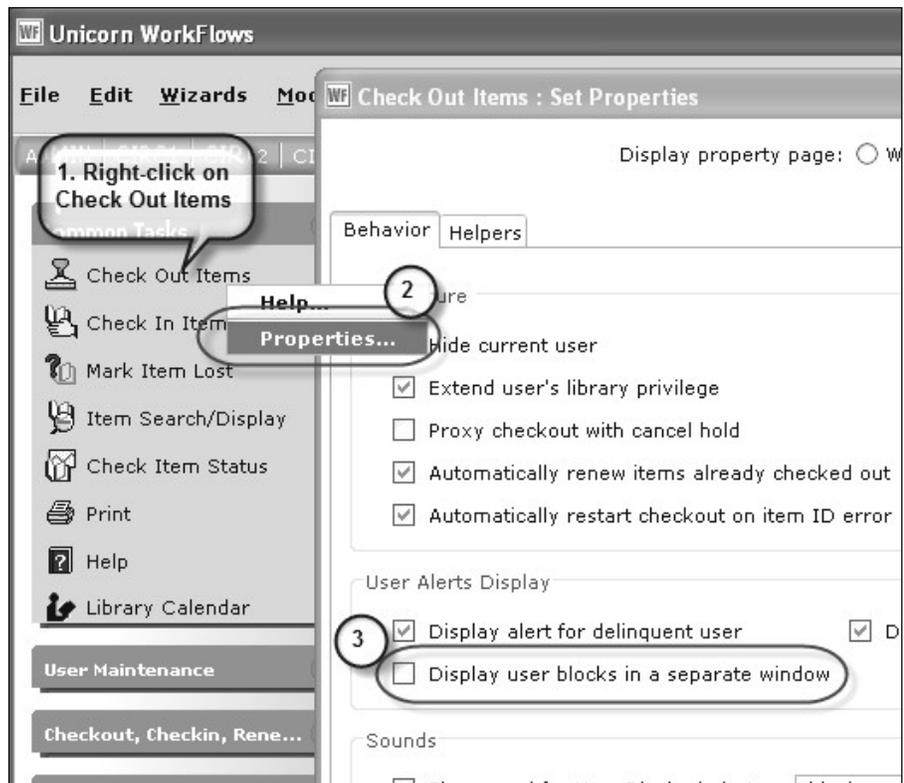
Some items not checked in after scanning a stack of books

More often than not this is because the user is not watching the screen during the check-in process and received an alert window. By scanning another barcode, the alert window is closed but the end result is that that item does not get checked in since it was actually scanned in to the alert window rather than the check-in wizard.

Libraries who report this problem happening frequently should:

- Encourage the library staff to watch the screen for alerts during check-in

- If the computer has a sound card and speakers, enable unique "ear-catching" sounds for the various alerts. It should be noted that not all of alerts in check-in and check-out have a property to enable a different sound.
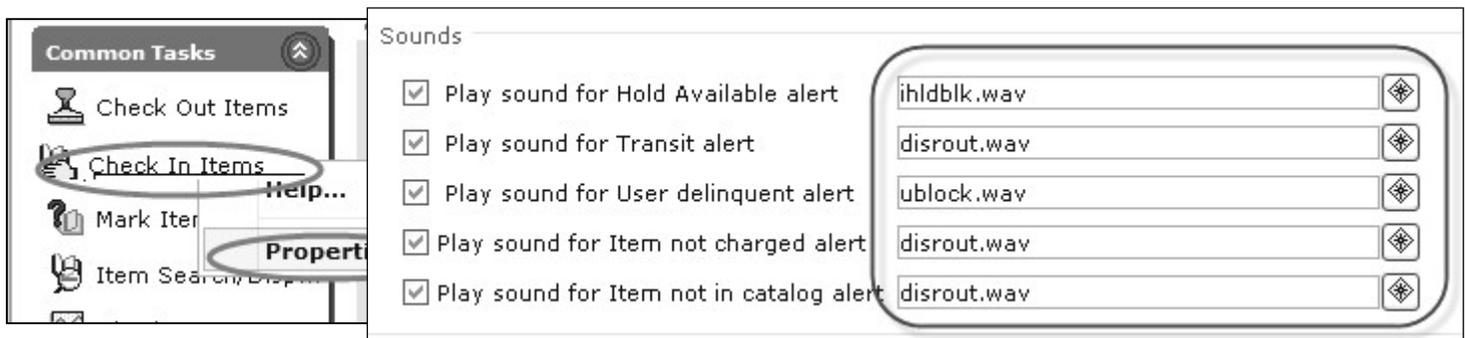
- Try turning up the volume on the speakers if they can't hear them in noisy libraries

- Disable unnecessary items in the properties of both the check-in and check-out wizards (listed previously).

- At the conclusion of the check-in, print out from the check-in screen the list of items that were just checked in (BEFORE closing the wizard). Count the number of items that should have been checked in and compare that to the list. Note the date/time on the list and keep the lists for a month or so. If they have a problem checking out an item that should have already been checked in, refer to the lists.
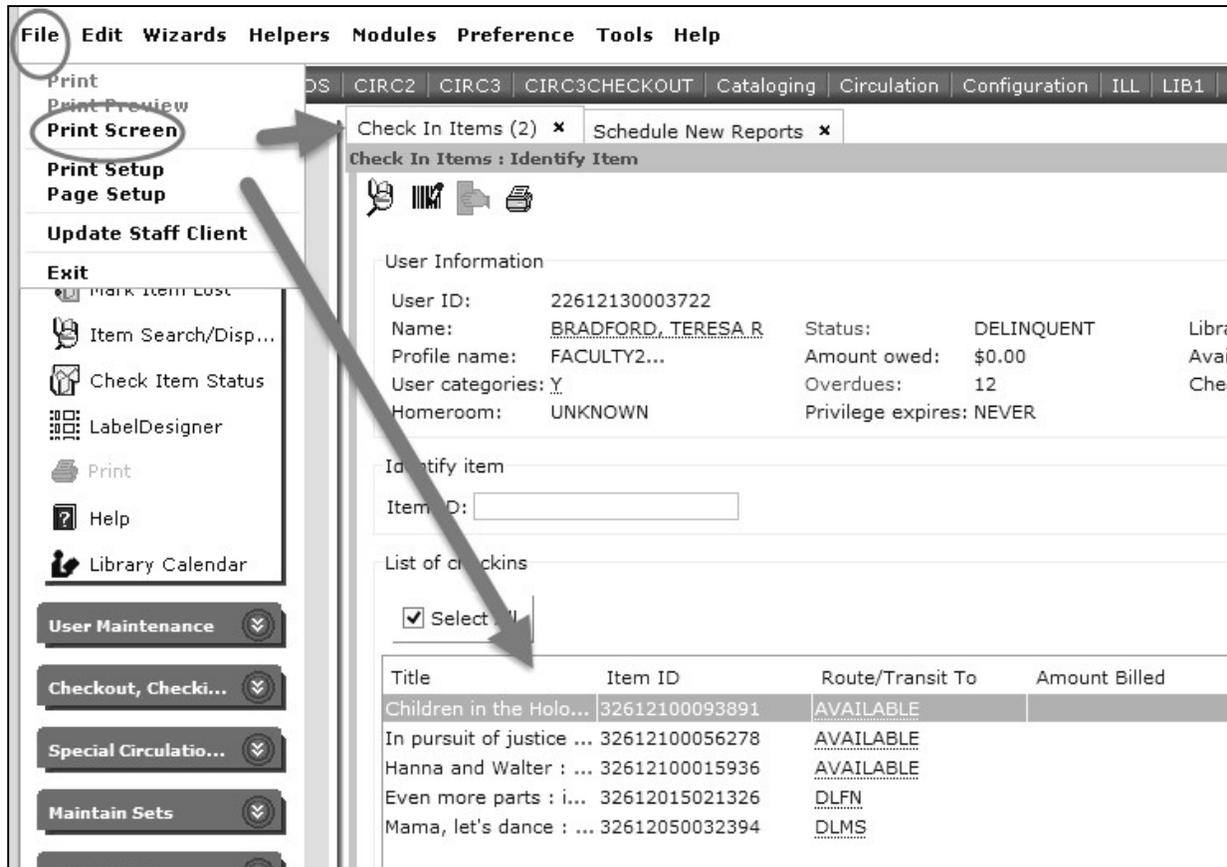
- If problem persists, have them use the StaffWeb Client or MobileCirc for circulation purposes.