



GENERAL RELEASE

CAPSIS CAPTURE ONLINE and On-Premises Version 2022

March 2022

1.0 Introduction

CAPSIS CAPTURE version 2022 is the next cumulative release of CAPSYS CAPTURE, incorporating all features and bug fixes from previous versions, and new features and bug fixes added since the release of version 2020. These release notes are provided to communicate the changes to CAPSYS CAPTURE since version 2020 only. To read the complete list of features and release notes for CAPSYS CAPTURE versions 2020, 2019 and 2018 refer to the following release note links:

[CAPSYS CAPTURE 2018 Release Notes](#) [CAPSYS CAPTURE 2019 Release Notes](#)

[CAPSYS CAPTURE 2020 Release Notes](#)

2.0 Version 2022 Security Enhancements

This release is the result of a security audit that identified 5 issues that violate some aspect of the [OWASP Top 10 Web Application Security Risks](#).

OWASP #2 Broken Authentication

The auditors observed that some pages were cached on the client workstation. If an attacker has physical access to the victim's system, allowing them to view the cached pages. Please note that none of your client data is stored in the cache. The attacker would only be able to view the layout of the page and the controls used on it. This release disables all caching of web client files. This will impact performance, but the impact is usually negligible.

OWASP #6 Security Misconfiguration

Response headers from the Web Server included information about the software and version that is hosting the application. This information could allow an attacker to leverage the server related details to carry out known attacks on the server. These headers have been removed.

CAPSIS CAPTURE only uses the HTTP request methods of GET and POST. However, the application did not prohibit the use of the remaining HTTP verbs. This leaves the possibility that an attacker could use these verbs to carry out attacks on the application. With CAPSYS CAPTURE 2022, the unused verbs have been blocked.

Error messages from the Web Server would sometimes include detailed error information from the backend. This could include details from the .NET Framework, the Server OS or the Database Server.

These technical details could be used by an attacker to reveal an avenue for further attack. All error messages have been sanitized to make sure that no technical details are revealed. The original error messages are still recorded in the Event Viewer for support purposes.

OWASP #7 Cross-Site Scripting

CAPSYS CAPTURE 2021 and earlier can be embedded in an IFrame. An attacker could use this weakness to devise a Clickjacking attack to conduct phishing, frame sniffing, social engineering or Cross-Site Request Forgery attacks. CAPSYS CAPTURE 2022 uses the X-Frame-Options header and the Content Security Policy frame-ancestors directive to prevent embedding. We have also added frame-busting Javascript code to all pages of the application.

3.0 Version 2022 New Features

CAPSYS CAPTURE Web Client

SAML Support

CAPSYS CAPTURE Web will now operate as a SAML Service Provider and use a SAML ID Provider to authenticate users. This may be used to provide single sign on (SSO) functionality to users.

Performance Improvement

Previous versions of CAPSYS CAPTURE Web Client would save searchable batch and document indexes whenever they were changed. This operation is now controlled by a setting in Resource.js. When the "UpdateSearchableIndexesOnSave" entry in Resource.js is set to 0 (the default), the Web Client will not save searchable indexes. If you want this feature to work the same as previous releases, you should set this value to 1. Regardless of the value of this setting, the CAPSYS CAPTURE Server will still update searchable indexes whenever a case is routed to a Queue.

Picklist Ordering

Previously, picklist values were always sorted alphabetically. This was a problem for numeric fields. Now, the web client will display Picklist items in the same order as they are listed in the Process Manager.

Display during Scanning

The Web Client now displays images as they are scanned. If you have a fast scanner, the images may not stay on the screen very long - this feature attempts to balance performance vs. near real time image display without slowing the scanner down while displaying the images.

Secure Error Messages

Version 2022 replaced almost all error messages from the Web Server with generic messages to improve security. This release restores the original, meaningful error messages. If you want to return generic messages to the client, you should use the new SecureErrorMsgs registry key. This key can be found at: HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Prevalent\CAPSYS CAPTURE. The key value is a DWORD and should be set to 1 to return generic error messages to the client. Regardless of the setting of this key, QXWflow will write messages to the Event Viewer that can be used for troubleshooting issues.

Capture Panel Changes

Scanning has been moved from a popup dialog to the Capture Tab. There is a new 'Scan Panel' which contains the controls to create new batches and append pages to an existing one.

Scan Panel Buttons

New buttons have been added to the Scan Panel to create empty batches and release or unlock batches. These buttons are controlled by settings in Resource.js.

Local Batches

When using CAPSYS CAPTURE Web Scan, CAPSYS now supports storing scanned and imported batches on the local PC. When CAPSYS CAPTURE Web Scan is not running, the Web Client will work exactly as before – batches can be imported and they will be immediately uploaded to the Web Server. However, when using CAPSYS CAPTURE Web Scan, batches that are created are stored in the local user's AppData\Local\CAPSYS\CAPSYSScan\batches folder. Because none of the files are transferred to the Web Server, scanning is now much faster than before. You may edit these locally stored batches just as before including inserting, replacing and appending pages. Indexing the batch and rotating or deleting pages. The only operations that are *not allowed* are OCR and Redaction. OCR is performed on the image by the Web Server, so the batch must be released to the Web Server before you can do OCR or Redaction. Batch release is now a very quick operation – the request is sent to CAPSYS CAPTURE Web Scan which will send the files to the Web Server in the background. Once the request is made, you may continue to do other work in the Web Client or logoff.

Complete All

Complete All buttons are now available on each queue in the list on the home page and beside the Queue List on the other pages. Complete All will complete (or, for the User queue, release) all the UNLOCKED cases in the selected queue. If you have a case loaded, it will not be completed by this operation. If any case has required fields (either Batch or Document) that are empty, the Server will reject that case and return it to the queue. Complete All uses the same Sort, Filter and size options as the Web Client. It will complete cases in the same order as they would be returned to the Client.

If you are using Filter By Owner, then only cases for the current user will be completed. Also, every queue has a 'Max Cases to Display'. This method will complete, at most, that number of cases. You may run *Complete All* multiple times in succession.

Complete from Home Page

Cases may now be completed (or released) from the Home Page. If any required fields are not provided, the Server will reject the case and return it to the queue.

Web Client Database Lookup


Updated to support TLS 1.2. OLE DB support removed. Better support for Views. Supports databasetypes that use the information_schema standard.

Disallow release of Empty Batches

When the "PreventReleaseOfEmptyBatches" entry in Resource.js is set to 1, the user is not allowed to complete batches that have no pages. This should be combined with the Server's "PreventReleaseOfEmptyBatches" registry entry as described further below in the [CAPSYS CAPTURE Server](#) section.

Print Images



A new button has been added to the viewer toolbar () to print multiple images. If the page being viewed is part of the unindexed pages collection, this button will print all image pages of the unindexed collection. When the current page is part of a document, this button will print all image pages of that document.

CAPSYS CAPTURE Web Scan

Multiple User Support

CAPSYS CAPTURE Web Scan now starts and stops automatically when a new user logs onto a workstation.

Release Status Dialog

CAPSYS CAPTURE Web Scan now has a dialog that will show you the release progress of any local batches. Each batch will show the date and time when it finished uploading to the Web Server, whether it is waiting to send, or the progress (% done) when it is currently sending to the Web Server.

Background Release

CAPSYS CAPTURE Web Scan releases batches to the Web Server on a background thread. When the Web Client requests a release, the batch is added to a list in CAPSYS CAPTURE Web Scan and control is returned to the Web Client. The Web Client can continue to do other work or even to logout. CAPSYS CAPTURE Web Scan will release the batches in the background with no further user interaction.

NOTE: the user doesn't need to stay logged into CAPSYS, but if they logoff Windows, CAPSYS CAPTURE Web Scan will be stopped. CAPSYS CAPTURE Web Scan will automatically resume the release when the user logs in (to Windows) again.

TLS 1.2 Support.

CAPSYS Scan fully supports using TLS 1.2

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CAPSYS CAPTURE SERVER

Disable Thumbnails

Creation of thumbnails may now be suppressed by setting the DisableThumbnails registry key. This key can be found at:

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\CAPSYS

The key value is a DWORD and should be set to 1 to prevent creation of thumbnails. This key is also supported by the Web Server and the Web Client.

Disallow release of EmptyBatches

The release of empty batches can be prevented by setting the PreventReleaseOfEmptyBatches registry key. This key can be found at:

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\CAPSYS

The key value is a DWORD and should be set to 1 to prevent the release of empty batches. This setting should be used with the "PreventReleaseOfEmptyBatches" entry in Resource.js as described above.

CAPSYS Process Manager

SAML Support

Fields have been added to the General Settings tab to enable SSO with SAML

CAPSYS CAPTURE Groups

We have added support for Groups in this release of **CAPSYS CAPTURE CAPTURE**. CAPSYS CAPTURE Groups are created on the Users tab in Process Manager and can be assigned rights just like users. CAPSYS CAPTURE Users (formerly Standard Users) and SAML Users can be assigned to Groups. On login, a user's permissions are the sum of their rights plus the rights from any group they belong to. Nested groups are not supported.

Improved Performance

The object model cache has been updated to provide improved performance when configuring QSX events on systems with many Document Types.

Picklist Ordering

Controls have been added to the 'Edit Picklist' dialog to order the items in a Picklist. This order will be used when the picklist is displayed to the user by the Web Client.

Improved Design

Updated UI design for Document Types, Batch Profiles and Users panels.

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New Activity Types

New Activity Types have been added:

Release Started	Written when the user initiates the release of a local batch.
Release All	
Complete All	
Qsx batch renamed	
Qsx document renamed	
Case complete denied	Written when the server is unable to complete a case because of missing required fields.
Case complete denied – empty batch	Written when the server is unable to complete a case because the case has no pages.
License not available	

Database Lookup/Validation Wizard

Updated to support TLS 1.2. Better support for Views. Supports database types that use the information_schema standard.

Qsx Modules

Database Lookup Qsx

Updated to support TLS 1.2. OLE DB support removed. Better support for Views. Supports databasetypes that use the information_schema standard.

Database

Q_QUEUE

Batches in a user's Local queue are found in the q_queue table. The LockedBy value is that user's UserID and the EventID is the start event for the Profile process map. In previous versions, the MachineName was always the name of the workstation where the batch was captured. In **CAPSYS CAPTURE 2022**, a Local batch may be stored on the Process Data Store (a workstation without CAPSYSScan) or on the user's PC (a workstation with CAPSYSScan). To distinguish these, the MachineName field is now blank for any Local batch that is on the Process Data Store. If the MachineName is not blank, you will not find that Local batch on the Process Data Store – it only exists on the user's machine.

CAPSIS CAPTURE Online Documentation

The **CAPSIS CAPTURE Administrator Reference** and **CAPSIS CAPTURE User Reference** will be updated in a future release.

4.0 Version 2022 Bug Fixes

Annotation Qsx

Improved performance related to how internal objects were being allocated and released. The previous code used more memory than was necessary and slowed performance.

CAPSIS Web

Fixed an issue with user connections being revoked. It was caused by the database server and webserver having different time zones. The fix does not logout users when the time zones do not match.

Fixed an issue when downloading a file that did not have the Mime Type set in the XML. The Web Server will now determine the Mime Type before sending the file to the client.

CAPSIS CAPTURE Web Scan

Improved. When a batch is scanned, the DPI and color settings are remembered. When the scanner is accessed again, those values are passed to the scanner as initial values.

CAPSIS CAPTURE Server

Fixed an issue with GhostScript 9.50 and higher. These versions of GhostScript are now supported.

Barcode Reader Qsx

Improved performance and accuracy

5.0 Installation and Upgrade Procedures

[New CAPSYS Installation](#)

[Upgrading an Existing CAPSYS CAPTURE On-Premise Installation](#)

6.0 Contacting Technical Support

Please report any defects or problems that you find in the software by sending an e-mail to the following address: support@capsystech.com.

In the text of your e-mail, please provide all the following information:

- Operating System and Version
- Database Brand and Version (if applicable)
- IIS version (if applicable)
- Web Browser Brand and Version (CAPSYS Web Client)
- Description of the problem
- Step to reproduce the problem (if applicable)
- Exact text of any error messages displayed
- CAPSYS component in which the error occurred Process Manager, Web Client, etc.

In addition, please attach a trace log file if one was generated. Trace logging can be turned on by setting the following registry key on the computer for which you wish to enable trace logging.

WARNING! Turning on the trace logging capability will severely impact system performance. It should be used for diagnostics only.

CAPSYS Server/Process Manager:

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\CAPSYSTraceFile

= "C:\CAPTrace.log"

Note: The path specified in the TraceFile key above must exist.

CAPSYS Web Server/Process Manager:

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\CAPSYS

IISTraceFile = "On"

Note: Trace logging for the CAPSYS Web Service and Process Manager is written to the Windows Event Viewer, under Applications and Services Logs -> CAPSYS. The registry key for IISTraceFile should be set to on or off to enable or disable Event Viewer logging. A value of "On" enables logging; any value other than "On" disables logging (default).

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