Snowbound Software VirtualViewer®

VirtualViewer® 4.14 (and older)
New Features and Corrected Issues

December 19, 2018

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VirtualViewer 4.14 (and older) New Features and Corrected Issues

Important Phone Numbers and Links

For the most current information, please contact Snowbound Sales at

Telephone: 1-617-607-2010 or
http://register.snowbound.com/MQL-contactUs-Website-2017.html or

questions@snowbound.com or

https://mylivechat.com/chatnoscript.aspx?HCCID=17729140 (sales inquiries only)

Filing a Support Ticket

https://snowboundsupport.force.com/SupportPortal/CommunityLogin?

Release Notes and Product Manuals

Note that the latest versions of our manuals and release notes will be on the website.

http://www.snowbound.com/support/manuals

Comments about manuals: documentation@snowbound.com

Important Information

- VirtualViewer for Java now supports JRE 1.7, 1.8+. Previous JRE versions are no longer supported or tested except under special arrangements. Support will end for JRE 17 at the end of 2019 except for special arrangements.

  Given the accelerated update release schedule by Oracle, we strongly recommend that customers upgrade to JRE 8 or higher (latest JRE is Java 11) as quickly as possible. Newer JRE's generally support older Java applications without any modification. However, features introduced in newer JRE's will not work for older JRE's.

- Please be advised the previously named "default content handler" and now called the "sample content handler" is actually intended to be used only for Proof of Concept efforts but is not a complete connector.

- It is recommended that customers upgrade as soon as possible to the latest release of VirtualViewer (typically offered quarterly). The product is rapidly evolving with new features as well as fixes.

- Snowbound recommends the use of the SVG output format from the server to the browser whenever possible for reducing data size and improving performance, particularly when working with large spreadsheets.

- When working with large spreadsheets, it may be advantageous to try the file breakup option so you're not working with extremely large downloaded documents that might affect performance.
-
- For Windows products, .NET framework versions 4.5.2 and up are now supported
- Web.xml changes: The following parameters in web.xml have been removed because they are unnecessary:
  - defaultByteSize
  - tiffByteSize
  - jpegByteSize

VirtualViewer 4.14 Release Notes

New Features

Document Filter

There is now an easy way to filter available documents by name in the document navigation pane. This feature is enabled by default, but can be disabled by setting the config.js parameter `showDocumentFilter` to false.

API for Retrieving User Display Name

`virtualViewer.getUsername()`: A new API has been added to programmatically retrieve the current user's displayed user name on the client.

- `virtualViewer.getUsername()` takes no arguments
- Returns a string containing the user name currently set in the browser

Streaming Video Support

Virtual Viewer now progressively loads videos when possible. This allows the user to play the video as it buffers, instead of waiting for the entire video to load before allowing playback. Browsers may not support progressive playback on certain files that have not been optimized for progressive loading, on certain files that the browser does not support, or for other factors of the browser's implementation of video. If the browser is not able to load a video progressively, then it will fall back to previous behavior and load the entire file.

This feature requires no configuration and is on by default. Video behavior in VirtualViewer is the same as before this feature; the only visible change is that the user may be able to play a video in VirtualViewer before the entire file has loaded. There are no API changes or additions.

Overwrite Original Format Notice

When a user makes a page manipulation (e.g. crop, rotate, insert a page, remove a page etc.) on a document that is not TIFF or PDF and saves, the document's original format is always overwritten to either TIFF or PDF. With this feature the user is warned when saving if the original format will be changed. The notice dialog gives the user three options:

"Save and Overwrite": Continue the save and overwrite the original document's format.

"Save to New Document": Close the dialog and open the "Save As" dialog.

"Cancel": Quit the save operation and close the dialog.

The dialog only pops up if the user has made a page manipulation and the original file format is not TIFF or PDF. Simply saving annotations, or modifying a document that is already a TIFF or PDF, will not result in overwrite. This feature does not change saving behavior; it notifies the user of the current saving workflow. This warning can be prevented from appearing by setting `enableSaveOverwriteWarning` in config.js to `false`.

New and Changed Callbacks

- `imageLoadCompleted` will be called when an image has finished loading and is able to be displayed. Note that this callback was previously named `imageLoadFinished`; this callback `imageLoadCompleted` is a replacement of `imageLoadFinished`.
- `afterTabClosed` will be called after a tab closes successfully. It will not fire if there's an error while closing the tab, or if the user initiates closing the tab and cancels. The following parameters will be provided to the callback in the argument object:
    - `closedDocumentId` {String} The ID of the document that has just been closed.
- `onLoadUsername` will be called when User Preferences code has finished loading a username from localforage, or has found that there is no username to be loaded. The following parameters will be provided to the callback in the argument object:
    - `loadedUsername` {String} The user name that has just been retrieved from localforage
    - `previousUsername` {String} The user name that was previously set in the viewer

Fixes and Changes

Multiple network requests for each image on Internet Explorer and Edge

Previously, a quirk of Internet Explorer and Edge's image loading workflow could create a race condition. Both browsers may have significant time between when the image is done loading and when the image is usable; due to a bug in VirtualViewer's loading process, this could lead VirtualViewer to request the image again.

Now, VirtualViewer accounts for Internet Explorer and Edge with more nuanced checks for image readiness, preventing multiple requests.

Large images and SVGs on Internet Explorer

As an older browser, Internet Explorer handles very large images poorly: if a web application uses a great deal of memory, Internet Explorer will behave in unexpected ways. A large image with a high DPI, or multiple large images, may not be displayed or may cause errors.

Now, VirtualViewer has several fallbacks in the event of an image loading or drawing failure. First, as before, if an image is loaded as an SVG, VirtualViewer will attempt to reload it as a raster image. After that, if the image is still too large or still cannot be drawn, VirtualViewer will load a downscaled, smaller image, as an attempt to use less memory in the browser. Beginning with such large and high-resolution images means that displaying a slightly smaller image will not provide a dramatic degradation in quality.

If the downscaled image still fails to function, VirtualViewer now has more fallbacks beyond displaying a blank page; an expanded version of the page's thumbnail will be displayed in place, to allow the user to manipulate the page and its annotations.

Miscellaneous Fixes and Changes

- Fixed a bug on VirtualViewer .NET only, where sparse documents would display the first document's image as every page. Now, sparse documents are properly displayed on VirtualViewer .NET.

- `enableCacheObfuscation` is no longer required to be set in the client-side config.js: only the server-side configuration is needed and the client setting will be ignored.
- Fixed a bug where if a user printed two documents in very short succession, VirtualViewer might print the last document instead of the most recent
- Improved annotation selection to make it more natural. A user must now click on the visible line of a line or arrow annotation in order to select it, instead of anywhere in its large bounding box
- Fixed an issue with the annotation tag dropdown
- Ensured the annotation navigation panel hides and shows correctly when switching between documents
- Previously, the toolbar jump-to-page text box in Internet Explorer would behave unexpectedly, and sometimes interpret a backspace as a browser "back" command. Now, the text box behaves in a standard manner
- Fixed user interface problems in the layer manager dialog
- Removed a source of error in the layer manager dialog by modifying the layer deletion workflow. Previously, the layer would be deleted on the server immediately upon clicking "OK" in the layer manager dialog. Now, the layer will be deleted on the server only when the user saves the entire document
- Prevent Microsoft Edge from cutting off the bottom of extremely long documents
- Addressed video loading and downloading bugs
- Fixed a problem where document thumbnails could appear even if the thumbnail tab was disabled
- Videos resize properly in Edge
- If `vvConfig.enableSingleClickImageRubberStamp` is set to false, the stamp now draws in the correct location, instead of initially appearing off the page
- Fixed a bug where redaction buttons in the search panel might be enabled for documents without text

- Fixed a subtle bug could appear where drag-and-dropping a page thumbnail on a document tab, in exactly the right place, could cause a browser error
- Ensure that document notes load properly when switching between tabs
- Watermarks may now apply to a document created with Copy/Cut to New Document, if requested by the user
- Improved VirtualViewer's treatment of document IDs with special characters on .NET
- Fixed a bug where the dialog asking permission to OCR would appear inappropriately during document compare
- Update logic in the Export Document dialog so a user can no longer export a document in its original format while including document notes
- Hiding the top Image Controls toolbar no longer hides the thumbnail panel toggle
- Fixed UI bugs regarding disabled thumbnail tabs
- Annotations now cannot be copied and pasted onto a cropped document
- Annotation filtering and navigation works properly with Virtual Documents
- Postit Annotations now enforce minimum size on creation, instead of just on resize.

VirtualViewer 4.13 Release Notes

New Features

Save Default Choices for Document Dialogs

Users may now save custom default choices for the Save As, Export, Copy to New, Cut to New, Print, and Email dialogs.

For instance, a user's workflow may demand that all documents be exported as TIFFs. Previously, the user would have to find the Format section in the Export dialog and click the TIFF radio button for every export.

Now, the user can fill out the dialog with their preferred default choices and then click the button labeled Save Preferences in the bottom left of the dialog. When the user opens the Export dialog again, the form will be filled out with their saved defaults.

How to Use

To use this new feature, a user modifies the form choices in a dialog and saves those choices as the new default. For instance, they may choose to set defaults in the print dialog. The user opens the print dialog, and chooses the options to use going forward.

Clicking the Save Preferences button will save the user's choices. The dialog will still open normally, and the user may still change options normally. The options that are selected immediately on opening the dialog will now be the user's custom defaults.

Technical Details

Data will be stored in the browser's local storage, through the localforage library, so the preferences will persist across sessions of VirtualViewer on the same browser. Radio buttons and checkboxes will be stored; free text fields and page range fields will not have any defaults stored.

New Configuration Options

No configuration is necessary to enable this feature, but there are new configuration options to pre-set certain dialog defaults.

- `vvConfig.includeRedactions` The "Burn Redactions (Permanent)" checkbox will burn redactions into an image. If this configuration item is true, "Burn Redactions (Permanent)" will be checked by default.
- `vvConfig.includeRedactionTags` The "Include Redaction Tags" checkbox will write redaction tags onto the redactions on an image. If this configuration item is true, "Include Redaction Tags" will be checked by default.
- `vvConfig.includeDocumentNotes` The "Include Document Notes" checkbox will include the document notes in the exported, saved, printed, or copied document. If this configuration item is true, "Include Document Notes" will be checked by default.
- `vvConfig.includeWatermarks` The "Include Watermarks" checkbox will include added watermarks in the exported, saved, printed, or copied document. If this configuration item is true, "Include Watermarks" will be checked by default.

Updated Search

VirtualViewer now supports document searches and OCR on Virtual Documents, Sparse Documents, and compound documents. Search will also return correct results on documents whose pages have been manipulated and that have not yet been saved; previously, it would use the server version of a document, so could return results for a deleted page.

Pattern search is now supported on annotations. VirtualViewer may search annotation text, tags, and notes for social security numbers, telephone numbers, credit card numbers, and email addresses.

The user interface of the search tab has been updated with new button images, styles, and an adjusted layout.

The search API remains largely the same, with a new addition:

Unchanged API:

- `virtualViewer.cancelCurrentSearch()` stops the current search, and displays any already-returned results.
- `virtualViewer.clearSearchResults()` clears the current search, removing highlights from the document and thumbnails from the search panel.
- `virtualViewer.nextSearchResult()` advances the currently selected search result, switching pages if necessary.

- `virtualViewer.previousSearchResult()` moves the currently selected search result to the previous match, switching pages if necessary.
- `virtualViewer.isDocumentSearchable()` returns true if the document is searchable. It returns false if the document is not searchable
- `virtualViewer.searchText(searchTerm, firstPage, lastPage, skipOcrPrompt)` launches a search through the current document's text for the given search term. This search is performed on the server, and may perform OCR if the document has no text, OCR is enabled, and the user consents. A progress bar will appear when search is launched, as document search is performed asynchronously and in batches: a small batch of pages will be searched and a new batch sent to the server when the previous batch is returned.
    - `searchTerm` {String} The word or words to search for. Set case sensitivity in your configuration file.
    - `firstPage` {Number} Optionally define the start of a region of the document to search. This is 0-indexed, and the default is 0.
    - `lastPage` {Number} Optionally define the end of a region of the document to search. This is a 0-indexed, non-inclusive value. The default is the length of the document.
    - `skipOcrPrompt` {Boolean} If this parameter is set, document search will not prompt the user before using OCR, but will go ahead and use it if necessary and if OCR is enabled.
    - returns undefined

New API:

- `virtualViewer.searchAnnotationText(searchTerm)` launches a search through every annotation on the current document for the given search term. Searched annotation text includes annotation notes, text content, and tags. If no search term is provided and there is a search pattern currently selected in the search tab, a pattern search through the annotations will be launched.
    - `searchTerm` {String} The word or words to search for. Annotation search is case-insensitive.
    - Returns undefined

Configurable Highlight Colors for Search

Two new configuration parameters allow color customization for search. When a search is completed, all search results are highlighted in an orange color on the document; the current search result in focus is highlighted a light yellow.

The first option, `vvConfig.searchColors.matchColor`, sets the color for highlighting search results that are not in focus. The second, `vvConfig.searchColors.selectedMatchColor`, sets the color for highlighting the in-focus search result.
Both configurations may be set to a string that contains an rgba color, in the format `"rgba(255,78,0,0.2)"`. This is the default color for search-result highlights. The first three numbers are RGB values to establish the color, and the fourth number is an alpha value--treated like a percent--to define the transparency of the highlight.

New Callbacks

New callbacks have been provided to allow custom code to interact with VirtualViewer. In order to set a callback, call `virtualViewer.setCallback("callbackName", callbackFunction)`. This function returns `true` if the callback was set correctly, and `false` if it was not. The callback function should be defined, and should take a single argument object as a parameter. Then, for instance, if the function is declared as `function foo(args) { ... }`, the arguments are accessible in the callback function as `args.firstArgument`.
VirtualViewer is responsible for calling the provided callback function appropriately. For instance, VirtualViewer will attempt to call the function set to the `"switchToTab"` callback whenever a user switches their tab. Most callbacks do not pay attention to return values, but two new callbacks require a boolean return.

- `annotationChanged` is called whenever the user modifies an annotation; this will fire whenever VirtualViewer itself judges that an annotation has been changed and the asterisk appears in the tab name. The following parameters will be provided to the callback in the argument object:
    - `documentId` {String} The ID of the current document whose annotations have been modified
    - `annotationLayerId` {String} The ID of the layer that holds the modified annotation
    - `annotationId` {String} The ID of the modified annotation
- `disableTextContextMenu` is called when the text context menu is about to appear, and if the callback function returns `true`, the context menu will be disabled. This context menu can contain options to copy and cut text if any is selected on the document, to perform OCR, or to close document compare. The callback function will be provided one parameter in the arguments object, and must return a value:
    - `documentId` {String} The ID of the current document that the user is clicking on
    - Return `true` to disable the context menu, and return `false` to allow the context menu to show as normal

- `disablePageManipulationContextMenuOptions` is called when the page thumbnail context menu is shown. If the callback function returns `true`, page manipulation options will be removed from the context menu. Page manipulation options include cut, copy, and delete options; page insertion options; and page selection options. This function is equivalent to setting the configuration option `vvConfig.pageManipulations`, but allows document-by-document granular control. The callback function will be provided one parameter in the arguments object, and must return a value:
    - `documentId` {String} The ID of the current document whose pages the user is clicking on
    - Return `true` to remove the page manipulation options, and return `false` to allow VirtualViewer to show or hide the options as normal

Configuration to Disable User Preferences

Now, an administrator can completely disable User Preferences through a new option in vvConfig, `vvConfig.disableUserPreferences`. This configuration item can be set to `true` or `false`. If `true`, the User Preferences dialog will be unavailable to users. All configuration items that could be overridden in User Preferences will be drawn from vvConfig; users will not be able to override vvConfig settings. If not set or set to `false`, User Preferences will behave as normal.

Dynamic Debug Logging

To assist in debugging issues logging can now be toggled into a debug mode without having to change configuartion files. Turning on dynamic logging can be done with the client-side call `virtualViewer.loggingOverride(true)` - while this flag is set all requests during that session will log all messages as high priority. This allows finely detailed logs to be created for a specific use case without changing global log configurations.

Simple Logging Facade (Java)

VirtualViewer Java now implements SLF4J (Simple Logging Facade for Java), a logging abstraction that allows clients to plug in the logging system of their choice. Documentation and examples can be found at https://www.slf4j.org/docs.html.

The default logger is still the java.util.logging framework. The init-param `logLevel` will only function for the default java.util.logging framework - if another logging framework

is plugged in using SLF4J, that logging framework's configuration should be used instead.

Common Logging Facade (NET)

VirtualViewer NET now implements Common.Logging.NET, a logging abstraction that allows clients to plug in the logging system of their choice. Documentation and examples can be found at http://net-commons.github.io/common-logging/.

The default logging functionality is unchanged and is implemented in Common.Logging's configuration as SnowboundLoggerFactoryAdapter. The web.config parameters `logLevel` and `logToIIS` are also now implemented as arguments in Common.Logging's web.config section, although the original InitParam arguments will still work for the default logger. If another logging framework is plugged in using Common.Logging, that logging framework's configuration should be used instead - `logLevel` and `logToIIS` will only affect the default logger.

Fixes and Changes

Sticky note updates

The double-arrow button to minimize sticky notes will now scale with zoom. Previously, it was possible for the button to be drawn outside the bounds of the sticky note. Now, the button will no longer be larger than the area of the sticky note, and will disappear when the sticky note is zoomed out far enough.

Previously, on a zoomed-out document, it was possible for the size of a minimized sticky note to be larger than the full sticky note. Now, the minimized sticky note will scale properly as the document zooms.

enableOcr configuration fixed

The enableOcr configuration works again and now defaults to "true" (which will have no effect if your Snowbound license doesn't support OCR). Setting enableOcr to "false" will disable OCR even if your Snowbound license supports it. enableOcr was disabled in 4.12 and replaced with a simple license feature check for OCR.

PDF signature printing issue

Some PDFs have an issue with signatures disappearing when printing via VirtualViewer. We've modified our PDF.js printing solution to fix this issue. if you are encountering this problem, change config.js's `disableDirectPDFPrinting` to "true" to use our modified PDF.js instead of your browser's.

Misc. Fixes/Changes:

- Fixed issue with inserting annotations + disappearing layers
- Fixed client stack trace in sendDocument
- Added new config parameter, 'consolidateLayerName' to set the default name of a consolidation layer
- Prevent context menus from drawing off-screen when at the boundaries of the viewer
- Fixed document tab showing changes (with an Asterisk) when none were made
- Fixed bookmarks being lost during page manipulations

VirtualViewer New Features 4.12

Video

VirtualViewer can now load and play videos, in formats supported by HTML5-compatible browsers. There is no editing or annotation support at this time - videos can only be viewed and downloaded. Video format support will depend on the capabilities of the web browser.

Supported formats

VirtualViewer uses the browser's HTML5 video player to display video, and can play all types of video supported by a browser's player. Most browsers support MP4, WebM and Ogg Vorbis. This browser compatibility chart has more details: https://developer.mozilla.org/en-US/docs/Web/HTML/Supported_media_formats

User preferences

There are several new configuration options for displaying video. These options can be viewed and modified in User Preferences:

- Video Autoplay: If enabled, the video will play as soon as it is opened. If disabled, the user must click play in order to start the video.
- Mute: If enabled, the video will start muted and the user must click to unmute. If disabled, the video will start at full volume.
- Video Controls: If enabled, the video will have the controls appear on the bottom of the player to control playback, fullscreen, volume, and the ability to download the video. Available options may change depending on the browser you are using. If disabled, video controls will be hidden from view and only accessible through the right-click menu.
- Video Stretching: If enabled, the video will stretch beyond its original size to fill the viewer. It will keep its aspect ratio, which means the video will not distort as it stretches. It acts like the Fit to Window zoom option, so it will fit to height or width and may not actually fill the viewport. If disabled, the video will not expand beyond its original size and will center in VirtualViewer's main display area.

All of these options have equivalent config.js configuration options as defaults.

Supported features with video

We currently support the following actions with video:

- Opening and viewing video.
- Downloading the video. This cannot be disabled.
- Change video viewing size (original size, fit to window and fullscreen).

The following are some things that are limitations of the HTML5 Video Player:

- Some browsers may not be able to seek, they just play from start to finish. Firefox had no issues seeking, Chrome did.
- Fast Forward and Rewind aren't baked into HTML5 Video Player.

Add configuration to auto-resize only sticky notes

When the configuration parameter vvConfig.autoResizeTextAnnotations is set to true, the viewer automatically resizes text annotations to fit the annotation text. If vvConfig.autoConfirmTextAnnotations is also set to true, the text annotation will change its size as the user types.
Now, there is a new configuration parameter vvConfig.autoResizeStickyNoteAnnotations. This fine-tunes the configuration control. vvConfig.autoResizeTextAnnotations will now only affect text annotations, and vvConfig.autoResizeStickyNoteAnnotations will only affect sticky note annotations.

Set document display name API

A new Javascript API virtualViewer.setDisplayName(newDisplayName, documentID) will set the given document ID to the new display name. The display name will update on the document tab and document thumbnail.

Load document model asynchronously

Highlight annotation button currently in use

Adjust toolbars intelligently based on how many buttons are visible

Redaction Navigation

Enhanced redaction navigation has been added to VirtualViewer. When the configuration for vvConfig.showAnnNavToggle is set to true, the previous navigation buttons are displayed as well as a set of radio buttons. The radio buttons are for the two navigation modes and display the annotation and redaction counts for the document. When the annotation navigation mdoe is selected, navigation occurs

as it did in the past. When redaction navigation is selected, it goes from redaction to redaction throughout the whole document. The redactions are selected and are focused on. The filter pages button does not work in redaction navigation mode and is disabled.

Page Manipulation with Bookmarks

VirtualViewer now retains bookmarks created on pages of a document as they are subject to page manipulations. The bookmarks would remain with the page in both reordering pages, cut/paste to other documents and cut/copy to new document.

Cache-seeding Support (Java)

There is a new client side API that allows the server to pre-cache images for future use. By calling virtualViewer.seedCache(documentId, pages, clientInstanceId), the user can get pages ready on the server, allowing for quicker retrieval.

Fixes and changes

VirtualViewer initialization API are easier to work with

The API function beforeVirtualViewerInit is called before the VirtualViewer object is initialized, and the API function afterVirtualViewerInit is called after; these functions are intended to be defined by customers to easily run code as VirtualViewer starts up. Previously customers would have to define these API functions after index.html was loaded; now, they can be defined any time.

Preserve document scroll when zooming

Previously, zooming in and out would cause the document to jump to the top of the current page. Now, older functionality is restored, and the document will stay in the same scroll position while zooming in and out.

Preserve document scroll and zoom when switching between tabs

When switching between open document tabs in the viewer, documents will now stay at the same zoom and scroll position that the user set, rather than zooming to the default zoom and going to the top of the page. If the configuration parameter fitLastBetweenDocuments is set to true, the document will still apply the zoom of the current document to the next document opened.

disableUploadDocument parameter moved to server

The config.js parameter to disable the Upload Document functionality has been replaced with a server setting. This will completely disable the service endpoint for upload so that clever users couldn't bypass the UI to "force" a document into the system. In prior releases we encouraged this filtering occur in the Content Handler as needed. But if you want to disable it altogether, you now have an easy method to do so.

Removed sample content handlers from VirtualViewer distributable

Some sample content handlers were removed from compiled VirtualViewer code. They will no longer be accessible to use - any in use should be replaced by a customized version of the default content handler.

InputStreamContentHandler

FileAndURLRetriever

MergedImageContentHandler

MultiContentElementContentHandler

Public print API

The parameters for the printDocument() method have changed. The new parameters are as follow,

- {String} The documentId to print, must be of a document open in the viewer
- {Boolean} If true, a PDF will be exported to a file. The user will be present with a save dialog
- {Boolean} If true, the annotations will be printed.
- {Boolean} Whether or not to burn in redactions.
- {Boolean} Whether or not to include redaction tags (only used when includeRedactions is true).
- {Boolean} Whether or not to include watermarks.
- {Boolean} Whether or not to include document notes.
- {String} Either "all", "complex" or "current".
- {String} A range of pages numbers to export (only used for "complex" pageRangeType).

Misc. Fixes/Changes:

- Improved the responsiveness of the toolbars
- Added a close button to the split screen/document compare panel
- Fixed an issue with the autoLayerPrefix when there were existing autolayers
- Previously, if you created an annotation layer in the Layer Manager dialog and clicked the dialog boxes OK box (instead of the new Layer) the layer would not be created.
- Fixed issue with annotation layers and page manipulations
- Fixed several minor/cosmetic issues with search UI
- Load the document model asynchronously, to improve responsiveness
- Make sure the document model has been loaded before requesting the image from the server
- Fixed tab naming after closing document compare panel
- Fixed issue with watermarks and reordering pages
- Confirm user wants to save when closing the browser window/tab
- Fixed an issue with image buffering

- Fixed issue with page-change callbacks where they were firing even if the page didn't actually change (like calling firstPage() when you were already on page one).

New Features 4.11

Document Compare

Summary

This feature will take the text of two documents open in the viewer and compare them together. The results of this comparison are displayed in a new tab in the right-hand thumbnail pane, and users can navigate through each edit to the document.

Entering the workflow

To start comparing documents, first open a document. This document will be the "original" or "old" document in the comparison. Navigate to the document tab in the right-hand thumbnail pane, and right-click the document thumbnail. Select the option "Document Comparison" in the menu that appears.

This option will open your second document in a new pane of the viewer, splitting the view in half. It will also start the process of document comparison. In the right sidebar, a list of pages will appear. Clicking on one of those pages will reveal a list of differences between the documents.

Types of changes

Consider a document that has the first line "To be or not to be," open in the left-hand pane as the original document. Choosing the second document, the user opens a document with the first line "To think or not to think." Document comparison interprets that "be" has been removed and "think" has been added. If this were reversed, and the "to think or not to think" document were open on the left, document compare would declare that "think" has been removed and "be" has been added.

Navigating document compare

Changes in the sidebar are displayed page by page. Click on the "Page 1" text to see all the changes on page 1; click again to collapse those changes away. Clicking on the text of a change in the sidebar will scroll the document to where the text is actually located on the page.

If a page has no changes, it will display "There are no changes to display." If page text has not loaded yet, a loading gif will display. There will also be a "Load More" button at the bottom of the sidebar. If

pages have not been compared, it means their text has not been loaded; either clicking the Load More button or scrolling through the documents will load more page text and thus more document comparison. Page loading and document compare is incremental to preserve performance on long documents.

At the top of the document compare tab in the sidebar, there are three small buttons for controlling document compare. The first, with an icon like an eye, will toggle whether the red and green highlighting on the document is visible. The second, with an icon like a padlock, will lock document scrolling. Scrolling up or down in one document will scroll the other visible document just as much. Finally, the refresh button will re-run and re-display document compare.

Exiting the workflow

Right-clicking on the right-hand document will bring up a menu with the option "Close Document Comparison." This will close the second pane, returning to the full-screen view. The document comparison tab in the right-hand thumbnail pane will also be hidden.

Using OCR with document comparison

If OCR is set up, it is possible to compare documents using OCR. This will occur automatically. If document comparison is initiated and at least one of the documents contains no text, the user may request that OCR is performed. The resulting text will be compared. If OCR is not configured, it will not be attempted, and documents without text simply cannot be compared.

API

virtualViewer.compareDocuments(firstDocumentID, secondDocumentID, { splitScreenDirection })

Parameters:

- firstDocumentID {String} This document will be opened in the left pane, as the "original" document.
- secondDocumentID {String} This document will be opened in the right pane, as the "new" or "revised" document.
- options {Object} This options object does not need to be passed in, and currently contains one optional parameter; it may be modified later to contain more. To pass data in through the options object, create an object with a key-value pair: virtualViewer.compareDocuments("myOldDocument.pdf", "myNewDocument.pdf", { splitScreenDirection: "vertical" });

- splitScreenDirection {String, "horizontal" or "vertical"} The default value is "horizontal". The value "horizontal" will display document panes side-by-side. Pass in the value "vertical" to display the document panes one on top of the other.

Returns: undefined

The API compareDocuments will open both of the provided document IDs in the viewer. The first document ID will be the "original," left-hand document, while the second will be the right-hand document. The final parameter is an options object, which can pass in optional parameters. There is one optional parameter, splitScreenDirection.

virtualViewer.getDocumentCompareReport()

Parameters: onReportCompleteCallback

Returns: A string containing the document comparison data, if no callback is provided as a parameter.

The API getDocumentCompareReport will provide an HTML report of all the changes between the two open documents in a unified diff. The report will be provided as an argument to the onReportCompleteCallback given as a parameter, or returned directly from the function getDocumentCompareReport if no callback is provided. Providing a callback is recommended, since then document compare will be able to finish loading and processing asynchronously.

The return string is a element; each changed item is a within that . This includes unchanged text.

- Spans containing unchanged text will have the class name documentCompareReportNoChange
- Spans containing text removed from the original will have the class name documentCompareReportTextRemoved
- Spans containing added text will have the class name documentCompareReportTextAdded

This report does not contain styling.

Callback Event Manager

Starting with 4.11, there is a single API method for setting callbacks and a new manager for the callbacks.

API

virtualViewer.setCallback('callbackString', callbackFunction{})

Parameters:

- *callbackString*: The following are the callback names. You pass in the string and it will properly set that callback.
- *callbackFunction* Pass in the function that you want to be called. It should accept one Arguments object that has the values listed next to the callback below.
- *onDocumentLoad* documentId
- *saveDocument* documentId, clientInstanceId, documentIdToReload
- *saveAnnotation* documentId, clientInstanceId, documentIdToReload
- *saveAsDocument* oldDocumentId, newDocumentId, clientInstanceId
- *uploadDocument* uploadedDocumentId, clientInstanceId
- *sendDocument*
- *pageChange* page
- *pageCopied* pages
- *pagePasted* pages
- *pageDeleted* pages
- *rotation* page, degrees
- *textSelect* text
- *imageLoadFinished*
- *imageLoadRequested*
- *annotationCreationCallback* type

Sticky Note Background Color Support

You can now set the background color of your sticky notes. You can set the default preference in the config.js, a personal user preference in the UserPreferences menu, and individual background colors for stickies in their annotation properties menu.

User Preference Option for Default Thumbnail Tab

Now in the user preference General Preferences tab there is a section that lets you select which tab of the thumbnail panel is the default upon opening the viewer. This should help users get to the navigation they need faster.

Copy Annotations Across Documents

We expanded the copy/paste annotation functionality to work across documents in the viewer. This is only implemented for the current session, you can't copy and paste an annotation between different windows of the viewer. This is strictly for switching between tabs in the viewer.

Get Page Dimensions

You can make an API call to return the actual dimensions of an image.

API

virtualViewer.getOriginalPageDimensions()

Parameters: None

Returns: An object that contains the height and width of the image. E.g. *{height: 595, width: 679}*

Require.js

We now use Require.js to compile and load our javascript code. Each of our javascript files is now an AMD module, and VirtualViewer javascript code will be delivered to the the browser in concatenated files to reduce latency from loading multiple script files. The code delivered to the browser will look very different from previous versions of VirtualViewer.

API

To make it easier to hook into VirtualViewer as it initializes, we look for two functions as VirtualViewer starts up. Define these functions in the global space of the iframe or window that VirtualViewer is running in.

beforeVirtualViewerInit

This function is called before VirtualViewer calls any initialization function. The virtualViewer object containing API will exist, but API functions may perform unexpectedly before initialization functions. beforeVirtualViewerInitis an appropriate place to call an alternate VirtualViewer initialization API, or initialize other objects.

Parameters: None

Returns: If you return true from this function, VirtualViewer will continue with normal initialization procedures. Return false if you are making calls to initialize VirtualViewer in beforeVirtualViewerInit, as these should override VirtualViewer's initialization.

afterVirtualViewerInit

This function is called after VirtualViewer has completed initialization. This is an appropriate place to assign callbacks, and perform initialization tasks that depend on VirtualViewer API.

Parameters: None

Returns: None

Thumbnail name customization

Thumbnail names can now be specified within the Pages tab

Code Sample:

```
virtualViewer.getCurrentState().setPageDisplayNames(["My First Page", "My Second Page"]);
```

Changing the Document display name

For changing the display name for the open Document tab, the individual pages within the Pages tab, & the hover tooltip over individual pages..

```
virtualViewer.getCurrentState().setDisplayName("newDisplayName")
```

Code Sample:

```
virtualViewer.setCallback("onDocumentLoad", function(event) {
  var state = virtualViewer.getStateForDocumentId(event.documentId);
  state.setDisplayName("My Document: " + event.documentId);
});
```

VirtualViewer 4.14 (and older) New Features and Corrected Issues

API call to toggle annotations on/off

virtualViewer.toggleAnnotationVisibility(show)

'show' is an optional boolean: if not provided, the function will toggle back and forth; if set to true/false it will make the annotations visible/invisible.

VirtualViewer 4.11 Bug Fixes

Annotation Revision History saving (fixed)

Emailing as original sends a tif (fixed)

Two Clicks to Move Annotation (fixed)

Mapping Alfresco permissions to Snowbound - document available from customer support

Annotation paste / save no longer fails but may be misplaced - still in development

ContentHandlerInput input now includes a httpServletRequest object in its table

pathnames missing within a war file corrected -

XHTML: File hangs - XHTML Files over 1000 pages long may cause problems for the viewer

New Features of VirtualViewer 4.10

Mobile Device Control Improvements

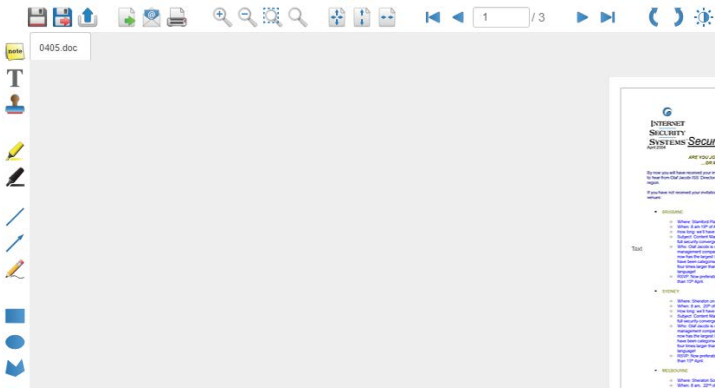
The user can pan on an image, if it's zoomed in, in all directions (imageScrollbars should be set to false in config.js for this to work).

Using two fingers. the user can pinch to zoom in or zoom out on the document. The zoom motion is not animated so the increase/decrease in size will happen when the user is done pinching.

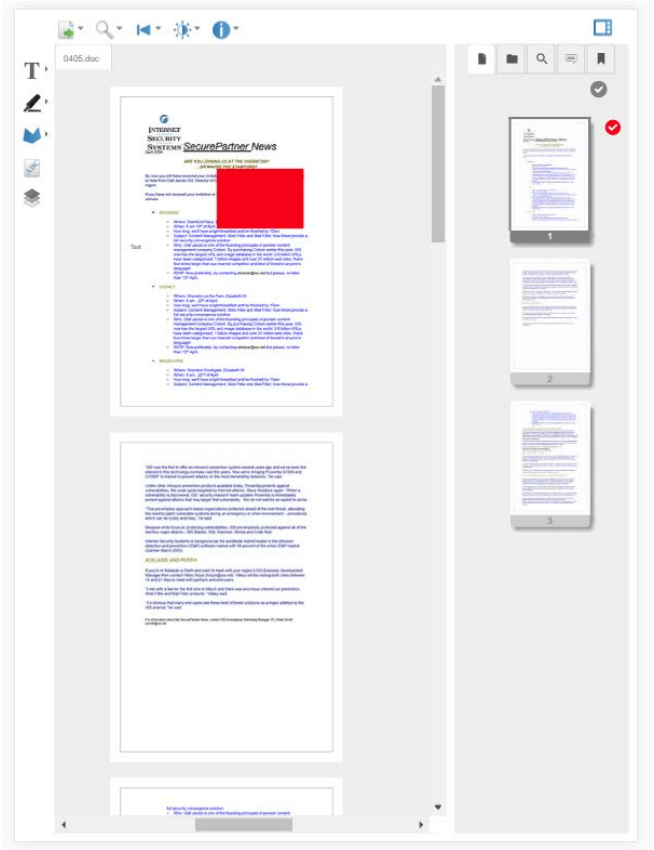
The viewer now works more elegantly in small iframes, on low-resolution monitors, and when browser windows resized smaller.

Toolbar details

On large screens, the toolbars look exactly the same as before:



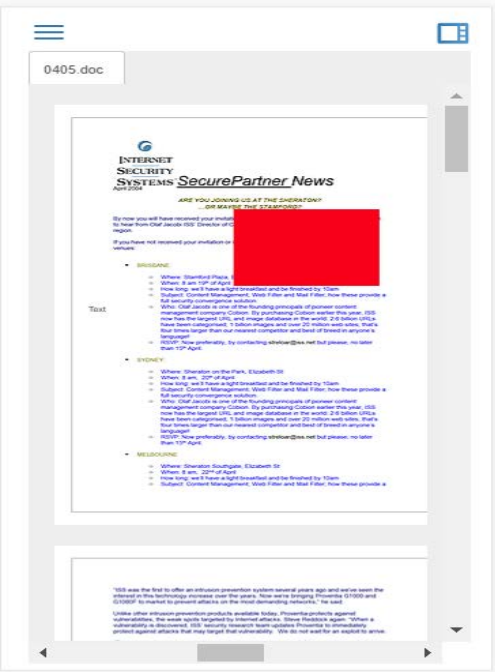
But as you shrink down, buttons collapse into menus. This happens as you shrink your monitor size, lower your resolution, or even shrink your browser. It's especially important for embedding the viewer in small iframes--like Alfresco--or for using the viewer on an iPad:



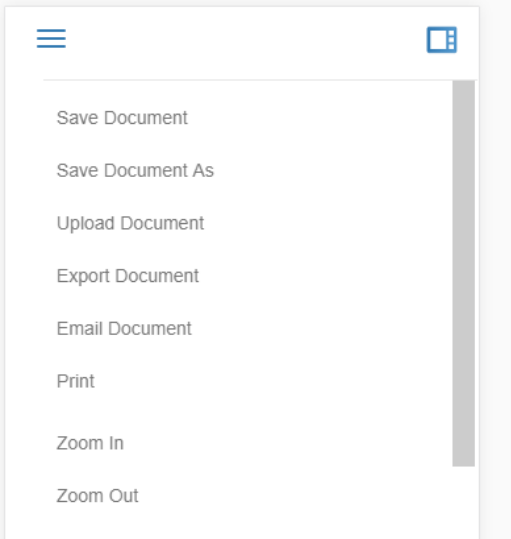
(Note that these icons are temporary.

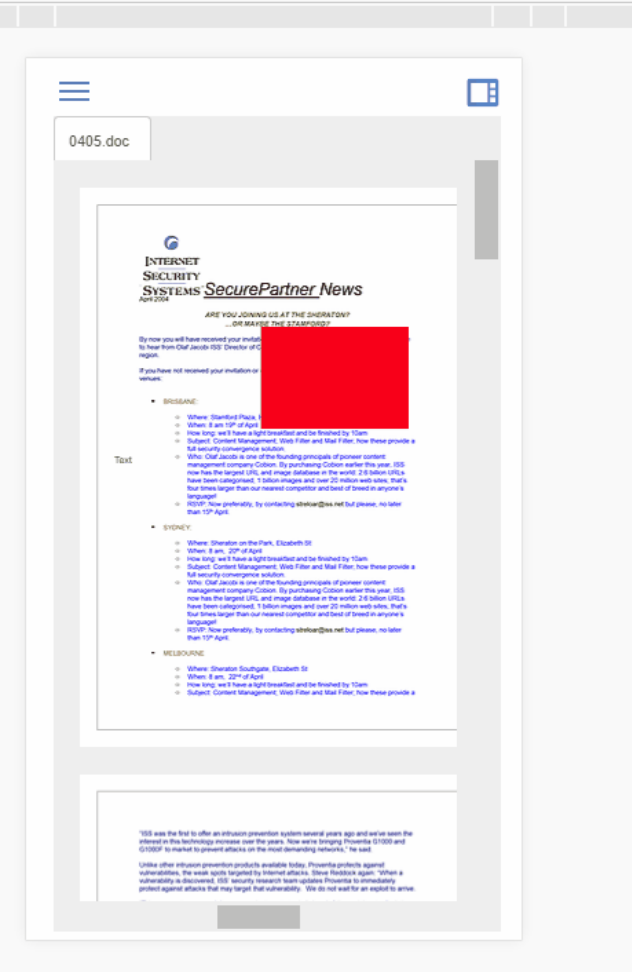
Here, you can see what the dropdown menus look like:

As you shrink down even further, into phone real estate or into the smallest your browser can get, we have even less space on the toolbar. So, we stuff all the options into a large menu, reachable by the three lines in the top left (called a "hamburger button"):



This menu takes up the entire screen when open:





Toolbar buttons are also now highly configurable.

A deep dive into the configuration

The file user-config/toolbar-config.js now defines everything about the toolbars. Customer admins can go in and manage this instead of modifying index.html directly: VirtualViewer code goes into this configuration file and creates a toolbar button for every configuration entry that it sees.

There are three parts to toolbar-config.js. First, we have the two big lists: imageToolbarButtons for the top toolbar and annotationToolbarButtons for the left-hand toolbar. Their names should categorically not be modified, particularly not in the final return statement in toolbar-config.js.

Take, for instance, imageToolbarButtons. It looks like this:

var imageToolbarButtons = {

"buttonKey": {button configuration),

"anotherButtonKey": {button configuration}

};

Each "buttonKey" is a unique, descriptive key for the toolbar button. Unique because it's defining the button in the configuration, and also because it's used in the HTML. It should be letters only, and it is good practice for customers to put a prefix on this key--for instance Big Company, Inc may call a key "bcMyKey."

This is the same structure as the annotation toolbar list of buttons. Each button key should also be unique between the two lists--don't put "vvMyNewButton" as a key in the image toolbar configuration and in the annotation toolbar configuration.

Now we can look at the button configuration. In the curly brackets, there are a few items:

-*localizeKey*: This is a string referring to a locale file, where the text that appears in the title--what appears in the tooltip and in the dropdowns--is stored. If a customer is creating a whole new button that doesn't have an entry in a locale file, this field can be left blank, but the "name" field *must* be filled in or the button will appear blank in dropdowns.

-*name*: This is a string with the name of a toolbar button. VirtualViewer buttons do not use this property, since they use localized strings, but customers without an entry in a locale file must put the name of their toolbar button in this field. This should be something short and descriptive.

-*clickHandler*: This is the function that will be called when a user clicks on the toolbar button.

-*iconImage*: This is a string representing a URL to an icon image. VirtualViewer buttons use CSS files to assign icon images, but customers can list an image here and it will be used.

-*addSeparatorAfter*: This is a boolean value. If a group of buttons is too long, it may be necessary to add a bit of whitespace after a button to visually break up the group when the toolbar is fully expanded. If this is true, the viewer will pop some white space after the button. It is not necessary to specify "false" on this item.

-*groupId*: This is a string, and it refers to a group key. Groups are also configured in toolbar-config.js. If a button is in group A, it will be placed in group A in the order it appears--if the Sticky Note button is before the Rubber Stamp button in the annotation toolbar list, and they both belong to group A, the Sticky Note button will appear before the Rubber Stamp button in the UI. If an item is in the annotation toolbar list, it should be assigned to an annotation toolbar group. Additionally, this is optional--if a button has no groupId, it will essentially be in an "uncategorized" list. It will appear at the end of the toolbar and will not be included in a dropdown. (See the Layer Manager and Watermarks buttons as default examples.)

The final part of toolbar-config.js is the group configuration list, called toolbarButtonLogicalGroups. This list looks very similar to the button configuration lists. What it will do is define all the buckets that the toolbar buttons can go into.

Again, each group has a unique string key followed by a configuration object:

```
var toolbarButtonLogicalGroups = {

"myGroupKey": { configuration },

"myOtherGroupKey": { configuration }

};
```

The configuration items are as follows:

-*localizeKey*: This is a string referring to a locale file, where the text that appears in the tooltip of the dropdown button is stored. This can be left blank.

-*groupTitle*: Like "name" for the buttons, this is a string with the name of the group in it. For instance, "Preferences" or "Edit" or "File." The localize key will handle this, but a customer without a locale entry could use "groupTitle".

-*iconImage*: This is a string representing a URL to an icon image. VirtualViewer buttons use CSS files to assign icon images, but customers can list an image here and it will be used.

-*annotationToolbar*: This is a boolean flag that chooses where to put the group. If true, the group is an annotation toolbar group; if false or absent, the group is in the top toolbar. Annotation toolbar buttons should only be placed in annotation groups, and similarly, image toolbar buttons should only be placed in image toolbar groups.

New strings in vv-en.json

utilityToolbar.fileGroup: File

utilityToolbar.zoomGroup: Zoom

utilityToolbar.pagesGroup: Pages

utilityToolbar.pageManipulationGroup: Page Manipulation

utilityToolbar.infoGroup: Info and Settings

annToolbar.textAndStampsGroup: Text and Stamps

annToolbar.markupGroup: Markup

annToolbar.shapesGroup: Shapes

Unsupported Features on Mobile Devices

Drag and Drop

Search and redact are disabled if redaction is disabled

Document comparison, when offered, will not be supported for mobile devices

Though several mobile devices have been approved, we cannot guarantee that all mobile devices are supported.

Alfresco Quickshare Support

A logged-in user can create or close a public quickshare link through Alfresco. If a logged-in user accesses that quickshare link, they can see and modify the document through VirtualViewer as normal; if a guest or unauthenticated user accesses the quickshare link, they will be able to view the document but not save any modifications to the document (or annotations, notes, etc).

Currently the unauthenticated user gets the full VirtualViewer UI with a readable error message if they take any action that tries to save the document. In the future they should get a limited UI that doesn't present those options.

Alfresco Watermark Support

Added support for Watermarks in the Alfresco version of VirtualViewer allowing saving watermarks back into the Alfresco repository. All supported features or functions remain.

Revision history for Annotation Create Date/Time

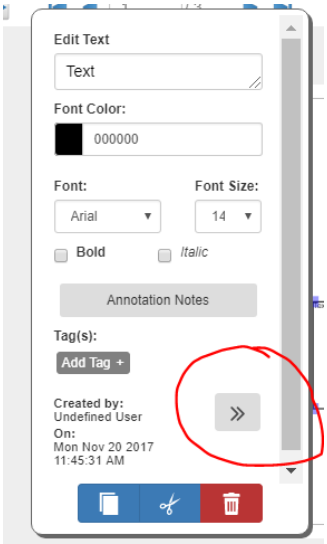
Use Case:

1. User 1 creates an sticky note on page 1 of a document, the userId/date/time are recorded
2. User 2 edits that same sticky note (color, size, placement, any change really....ect)
3. The userId/date/time are updated in a scrolling list reflecting each edit to that object.

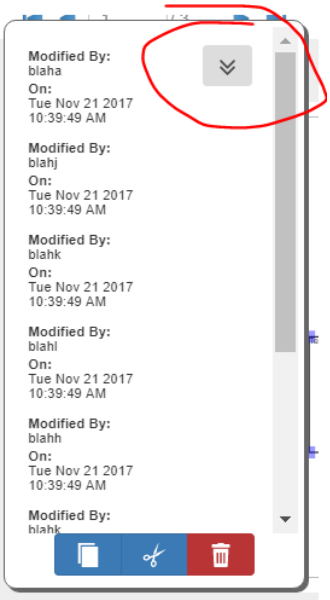
- Works for all annotations, image stamps and redactions
- Resizing/moving records as a change
- Changing text records as a change
- Page manipulations or moving pages with annotations to a new/other document will not record a change
- The use of pages with annotations in a VD will record changes to the annotations
- A modification will be added if the annotation is modified and then saved.
- If the user changes the color, moves around the annotation, and expands the annotation, and then saves once, only one modification item will be saved.
- If an annotation is pasted, it will have a clean slate--it won't keep the modifications of the original.
- If a document is saved-as, the annotations on the new document will still have a modification trail but will not add a new modification for the saving event.

Display and Use

The revision history is displayed in the annotation popup by clicking an expando button:



And shrunk again by hitting the same button:



Filenet F_CREATOR Tag Support Added

NET 4.5.2+ Requirement Added for TLS 1.2 support

OCR Integration (beta)

VirtualViewer 4.14 (and older) New Features and Corrected Issues

This is a beta version of the OCR option in VirtualViewer. The final version is expected in the VirtualViewer v4.11 release where some alignment issues and ability to work with additional input file formats will be added. We also expect to offer a choice of OCR recognition engines in 2018.

The OCR function allows searching text in an image document (TIFF or PNG initially) as well as selecting text in the VV client after the document has been OCRed. To OCR a document in the VV client, a user must search for text in a non-text document to get the OCR prompt. The OCRed result is cached; while that result is cached, the user can search for and select text without a further OCR prompt. Searching is performed using the Search tab in the thumbnail panel.

The original image will overlay the OCRed textual data to maintain the greatest similarity to the original document. The search text string will be highlighted. “Previous” and “Next” match buttons will work as normal. “Redact” and “Redact All Matches” work as normal. Applying redaction tags to results works as normal.

A wait icon will be displayed while the OCR process is running.

OCR will not be initiated if the input document is not raster. Saving to a PDF file is an option. Additional language support can be added by the customer.

The two new parameters necessary to enable OCR are in web.xml (web.config for .NET):

- enableOcr: Enable OCR for searching and text extraction. Must have a valid OCR configuration and licensing to function correctly. Defaults to false.
- tesseractDataPath: Absolute or relative path to Tesseract OCR Engine's training data. If using packed WARs in Tomcat, this needs to be changed to an external unpacked folder. Defaults to "/tessdata".

Fixed Customer Issues in VV 4.10

Small screen issues fixed

- The document no longer overlaps the thumbnail panel when the viewing canvas gets very small
- Thumbnails work on iOS devices, annotations may be drawn and modified on all sizes of screen
- The thumbnail pane starts out hidden if it's going to take up too much screen real estate
- Modal dialogs are usable on small screens
- Annotation context menu is usable on small screens
- Scrolling works on small screens

Other Fixed Customer Issues in VV 4.10

- IOS Mobile: Export to Tiff/Original opens only the 1st page in new tab
    - This is an issue with IOS where it only displays the first page of a multi-page TIFF. The other pages are preserved and viewable on other applications. (This is also true when viewing such documents in Gmail.
- VV Net 4.9: Constant reloading of thumbnails
- FileAndURLRetriever class missing from VV Java v4.9
- VV: PDF Arial to Times New Roman conversion error fixed
- Tabs, canvas, and thumbs can lose sync
- Annotation Highlight Rectangle does not use highlightFillColor
- Annotations are not burnt in via export
- Text Ann Color Selection
- Confirm Changes dialog box not appearing
- Snowbound annotation tags are overwritten
- Page size increased after redaction applied
- Filenet annotation values are overwritten
- PDF document comments are not being displayed
- VV Net HTML plug issue
- PaperPort 12 PDF: Large file stalls or fails to load
- VV .NET cannot get files over HTTPS TLS 1.2 on framework 4.5
- Color is not displayed and size is shrunk in pdf document
- Cannot view annotation with permission PERM_VIEW = 40

END OF RELEASE NOTES

VirtualViewer 4.14 (and older) New Features and Corrected Issues