

Intella Connect 2.0 Release Notes

Highlights

- Added an **Insight** view to the case dashboard.
- Added indexing of **virtual machine** images (VMDK and VHD formats).
- Added detection of **Bitcoin** cryptocurrency files.
- **Indexing performance** improvements, both raw indexing time and when adding additional data to a case.
- Added several **table columns**, e.g. covering the number of recipients of emails and other communications, passwords and certificates of decrypted items, page count, and others.
- Refined the classification of **embedded items**, and consequently improved the suppression of **irrelevant items** using the new definition.
- Added **skin tone analysis** of images.
- Added a **Recipient Count** facet.
- Various **batching & coding** refinements.
- Added **PDF and Thumbnail pre-generation** tasks.
- Improved the **Previewer speed**.

General

- The “Intella Processor” product has been renamed to “Intella Node”.
This was done to eliminate confusion with the “Intella Professional” product, often referred to as “Intella Pro”, and the “HASP Pro” dongles.
- Changed the styling of the Admin Dashboard and main Connect user interface.
- Several improvements related to the rendering of labels, e.g. when windows are resized, texts such as case names are unusually long, etc.
- Wizards now must be closed explicitly using the Cancel button or Escape key. They can no longer be closed inadvertently by clicking outside of the wizard’s area.
- The Dashboard and Review tabs now restore the last selected sub-tab when returning to them.
- MS Internet Explorer 9 is no longer supported.
- Reduced the likelihood of long-running operations timing out.
- Various minor user interface improvements.

Case Management

- The “User accounts” list can now show the list of all cases to which a specific user is authorized.
- Improved the handling of corrupt cases, increasing the chance of being able to open them. While corrupt cases can no longer be relied upon for future use, this might let the user salvage any work product from the corrupt case.

Authentication & Authorization

- Improved the error message shown to a user trying to open a case without being authorized to do so.

Indexing - General

- Added support for virtual machine images in VMDK (VMware) and VHD (Hyper-V, VirtualBox, XenSource, ...) format. See the User Manual for restrictions on file formats.
- Added detection of Bitcoin wallets and blockchain files. Supported Bitcoin applications are: Bitcoin, Dogecoin, Litecoin, Multibit Classic and Multibit HD.
- Added support for ZIPX files.
- Added support for ISO images in UDF format.
- Indexing performance improvements:
 - Improved parallelization inside and between crawler processes and smarter file usage improves the overall indexing time for new and re-indexing cases. Speed improvements up to twice as fast have been reported.
 - Other improvements specifically targeted the time needed for the “Index new data” operation. Adding a few files to a large case is now a lot faster. Speed improvements up to four times as fast have been reported.
 - The cost of the “Analyze paragraphs” indexing option has been greatly reduced. The option now typically imposes a cost of < 10% of the total indexing time.
- The “Index content embedded in documents” option has been replaced by the “Index images embedded in emails and documents” option. Differences:
 - The new option affects the processing of child items found in documents (Word, PDF, etc.) and emails. Previously it would only apply to documents.
 - The notion of “embedded” and “attachment” has changed. Previously, all direct child items of documents would always be classified as “embedded item”, and all direct child items of emails would become “attachments”. Now it depends on whether the item is an image and how that image is handled when its parent item is displayed. When the image is visible as part of its parent’s native rendering (commonly referred to as an “inlined image”), it is now classified as “Embedded image”. All other child items, including any non-inlined images, are classified as “Attachment”.
 - Where necessary, Intella will stay on the safe side. For item types where the native application typically supports the inline display of images but Intella does not, all child items are classified as “Attachment”. Examples are images that are part of a Contact in a PST file. This matters as the “Embedded image” category is now also part of the suppressed set of items when the “Hide Irrelevant” option is turned on, see below.
 - As the new option now also applies to inlined images found in emails, the performance gain obtained by turning this indexing option off will typically be larger than before.
- Added support for indexing virtual files in disk images, such as the Master Boot Record.
- Several improvements to the processing of MS Office files.
- Several improvements to the processing of cellphone dumps.
- Improved the body selection algorithm for emails in PST, MSG and EDB files that have their body stored in multiple formats (plain text, HTML and/or RTF).
- Missing items in a PST file are now recorded in the Exception Items category in the Features facet.

- Extended the metadata extracted from JPEG images and improved the processing of JPEG metadata containing non-ASCII characters.
- Added extraction of metadata from PNG, GIF, BMP, TIFF, WebP, PSD, ICO and PCX image files.
- Improved the accuracy of IBM Notes NSF file type identification, reducing the number of false positives.
- Added support for detecting Adobe FrameMaker files.
- Added support for detecting PCF and ICO image files.
- Improved error reporting when indexing a folder source and part of the folder cannot be read due to lack of access rights.
- Improved the default name given to disk image sources.
- Resolved an issue with indexing email metadata in PST and MSG files, where the contents of the Sender header would be reported as the value of the From header.
- Resolved an issue with indexing getting stuck on processing certain MS OneNote files.
- Resolved an issue with certain types of virtual folders in AD1 disk images not being recognized as such, which had consequences for indexing performance.
- Resolved an issue with disk image indexing failures not resulting in the disk image being registered as an exception item.
- Resolved an issue with PowerPoint documents failing to index properly due to missing embedded images.
- Resolved an issue with the indexing of broken SQLite files resulting in certain temporary files not getting deleted.
- Resolved an issue with images in PDF documents failing to extract.
- Resolved an issue with certain types of dates in PDFs failing to have their time zone parsed correctly.
- Resolved an issue with an index profile in a Disk Image source not being applied, resulting in all files in the disk image getting indexed.
- SQLite 2 files are now properly reported as Extraction Unsupported in the Features facet.
- Resolved an issue with very large “paragraphs” blocking indexing when “Analyze paragraphs” was turned on. This could occur when indexing certain types of log files.
- Resolved an issue with Intella moving evidence files out of the evidence folder into the case folder during indexing of a load file or Lotus Sametime chat dump.
- Resolved the “There is an incompatible JNA native library installed on this system” error message.
- Resolved an issue with timestamps in “Zulu time” notation not parsing correctly.
- Due to differences in how the Optimization folder is now used, its recommended free space is now 1 x the evidence size rather than 2 x the evidence size.

Indexing - Load Files

- Intella now bundles Relativity export and import templates that are designed to be compatible with each other, so one can export items out of one Intella case and into another case using these templates.
- Resolved an issue with load file import incorrectly deduplicating images and/or texts when the associated items in the load file are also duplicates.

Background Tasks

- One can now start background tasks for pre-generating PDFs (used for the Preview and Redaction tabs) and thumbnails (used in the Thumbnails tab and results list).
To add, monitor and manage background tasks, click on the Preferences button and go to the “Background Tasks” tab. This shows the list of running and completed background tasks and offers the user to add a new task. The selection of what items to process in a PDF or Thumbnail pre-generation task is based on tags.
This user interface is only shown to users that have the “Can manage background tasks” permission.
- In the future, other long-running tasks such as exporting may also become part of this framework.

Content Analysis

- Added skin tone analysis. This analyzes selected image files for the presence of human skin colors. The images are categorized in Strong, Medium and Weak categories. Supported file formats include JPEG, PNG, GIF and TIFF. Note that the methods used for skin tone analysis are highly heuristic and will typically produce false positives and false negatives.
- The new Money category finds potential monetary amounts mentioned in document texts.
- The new Time category finds potential time-based references like hours, weekdays, dates, references like “after 7 p.m.”, etc.
- All items on which Content Analysis is run are now registered in the “Content Analyzed” category in the Features facet. Previously, only items that had at least one extracted entity were put in this category.
- Resolved an issue with the default content analysis categories (Credit Cards, SSNs, Phone Numbers) not being applied on texts obtained through OCR.

Insight

- The Insight tab, introduced in the 1.9.1 version of the desktop product, has been added to Intella Connect as part of the Dashboard.
- The boxes in the Insight section and the Case section can now be reordered and resized to accommodate a user’s needs and display.

Searching

- Added a Recipient Count facet, letting the user query for the number of recipients of communications. The primary use case for this is filtering out all emails, chat messages etc. that are between two parties and no one else.
- When the “Hide Irrelevant” filter is switched on, it now also filters out embedded images. See the Indexing section for how this category is established. This may result in more items being filtered out, which reduces review time when items are typically reviewed in their native rendering.
- Intella Connect now allows users to perform content analysis (extracting person names, organization names, etc. from the item text) on a selected set of items. While the content analysis results could be navigated in Intella Connect, the analysis procedure previously had to be done in the Intella desktop application.
- Added and changed categories in the Features facet:

- Has Geolocation – indicates whether a geolocation has been associated with the item, either as part of the original metadata or through an IP geolocation lookup.
- Text Fragments Extracted – indicates whether heuristic string extraction has been applied on a (typically unrecognized or unsupported) binary item.
- “Embedded” has become “Embedded images”. The definition of this category and the “Attached” category has been refined. See the Indexing section for details.
- “Empty document” has become “Empty documents”.
- “Unsupported” has become “Extraction Unsupported”.
- The Type facet now shows type-specific icons.
- Resolves various issues with phrase search corner cases.

Results

- Added columns showing the number of recipients of communications such as emails, chat messages and phone calls:
 - Recipient Count – counts all recipients.
 - Visible Recipient Count – excludes email Bcc recipients.
 - Bcc Count.
- Added Password and Certificate columns, showing the credentials that have been used to decrypt an encrypted item. The values shown here are subject to full-text search, as part of the Summary field.
- Added a Parent ID column.
- Added a Source IP column.
- Added a Has Geolocation column.
- Added a File Extension column.
- Added a Page Count column.
- The “Embedded Item” column has become “Embedded Image”.
- The columns list in the Table preferences is now sorted alphabetically.
- Resolved an issue with values in the Table view disappearing after the item in that row had been previewed. This did not affect exporting of the metadata and sorting.

Previewer

- Improved general performance of the Previewer. Several performance improvements are responsible for this, e.g. automatic fetching of the next and previous item, optional pre-generation of native renderings in PDF format, timely cancelling of loading requests when traversing to other items, etc.
- The Properties tab now shows the longitude and latitude coordinates found in EXIF metadata.
- The Previewer now renders the best matching title of an item in the Contents tab, along with an icon that represents the item’s type.
- Added support for rendering EMLX files in their native layout.
- Improved navigation of keyword search hits, scrolling the text in such a way that the context of the hit is properly revealed.
- Improved the hit highlighting algorithm for phrase searches.
- Improved support for multi-line comments in the Comments tab.
- Resolved an issue with decrypted documents not showing their native rendering.

- Resolved an issue with missing hit highlighting in the Save History in the Properties tab.
- Resolved an issue with the text in OpenOffice documents being rendered in tiny fonts in the Preview tab.
- Resolved missing file type icons for certain file types in the location bar.

Tagging

- Several usability improvements in the tag-related dialogs.

Redaction

- Added the ability to clear all redactions of an item.
- Removed duplicate information in the default redaction profile.

Batching & Coding

- The item view now shows the list of attachments of the current item and allows for opening them.
- Resolved an issue with the automatic restoration of batching and coding information during re-indexing of a case.
- Improved the positioning of UI elements surrounding the document content.
- Added a permission for the ability to modify coding layouts.
- One can now add comments to the items in the Review tab.
- Coding layouts can now be shared between cases. By default, sharing of a specific layout is switched off.
- The item ID of the currently displayed item is now shown.
- Batches can no longer be assigned to users that have been revoked or that have no access to the case.
- Improved the warnings shown when an item is already tagged before coding of the item takes place and the existing tags do not meet the coding layout's restrictions, e.g. regarding mutually exclusive tags.
- Improved some cryptic error messages like "Error response code: 500" that were caused by users lacking certain permissions.
- Various minor usability improvements.

Instant Messaging

- Numbers that are preceded by the hash character (#) are now interpreted as item ID references and turned into hyperlinks. Clicking on them opens the item in a Previewer tab.
- Resolved an issue with the instant messaging storage not functioning correctly when the case folder name contained a single quote (') character.

Exporting - General

- Added a wizard sheet for controlling what happens with redacted items during export: Use the redacted images when available, suppress natives, suppress text export.
- Added a permission for the ability to download an item in its original format when viewed in a Review or Preview tab. This is now separate from the permission to export a collection of items.

Exporting – PDF

- Resolved an issue with decrypted documents not exporting to PDF in their native rendering.
- Resolved an issue with EML emails attached to other emails that would not render properly in PDF.
- Resolved an issue with the text in OpenOffice documents being rendered in tiny fonts when exporting in original view mode.
- Resolved an issue with certain PDFs having an incorrect document orientation.
- Resolved an issue with export errors related to the creation of the item’s original view not being reported.

Exporting – PST

- Improved support for MS Outlook 2016.
- Several stability improvements.

Exporting – Load Files

- Added an attachment count field.
- When exporting the extracted text, the order of the text components (headers, contents, raw data, ...) can now be changed by dragging the checkboxes in the desired order.

Miscellaneous

- Changes to the logging configuration are now effective immediately; it is no longer required to reopen or reshare the case.

Upgrade Notes

Authorization – Upon starting Intella Connect 2.0 for the first time, an automatic conversion of the RBAC model will take place. This conversion process will grant the newly introduced “Can download original item” permission to all users that have the “Can manage exports” permission. Furthermore, it will grant the new “Can manage coding layouts” permission to all users with the “Can create review batches” permission. This is to account for the reduced scope of the older permissions.

In case an older Intella Connect version (e.g., version 1.9.1) is started again, these new permissions might prevent it from starting properly. A manual modification of the auth.xml file is then required.

Batching and Coding – Due to the introduction of the sharing attribute in coding layouts, new coding layouts will now by default only be visible in the case where they are made. To use them in other cases, they explicitly need to have their sharing attribute switched on. Installations with existing coding layouts will have those layouts shared across all cases, as was the case in previous releases.

Tasks – The storage format of indexing tasks (e.g. for the automated running of keyword lists, applying tags, etc.) has changed. Tasks in existing cases need to be recreated from scratch.

Backwards compatibility – Intella Connect 2.0 can open cases made with the Intella 1.8.x, 1.9.x and Intella Connect 1.9.x versions (i.e. Intella Processor 1.9.x). Cases made with beta versions are not supported and should be recreated.

Cases made with the 1.8.x and 1.9.x versions do not require any case conversion or re-indexing. However, some functionalities and improvements may not be available for such cases.

Cases made with Intella 1.7.x or older are not supported.

While we aim to ensure full backwards compatibility with older cases and older Intella Connect versions where we reasonably can, opening a case made with an older version in a newer version may result in that case no longer opening properly in the older version. We strongly recommend to always create a backup of the case before upgrading.

Internet Explorer 9 – Note that MS Internet Explorer 9 is no longer supported. When using Internet Explorer, we recommend using version 11 or newer.