Vound

Intella™ User Manual

Intella™

evidence made visible

Vound, LLC
email investigation and eDiscovery software

Version 1.5.2

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We will be pleased to provide additional information concerning Intella and schedule a demonstration at your convenience.

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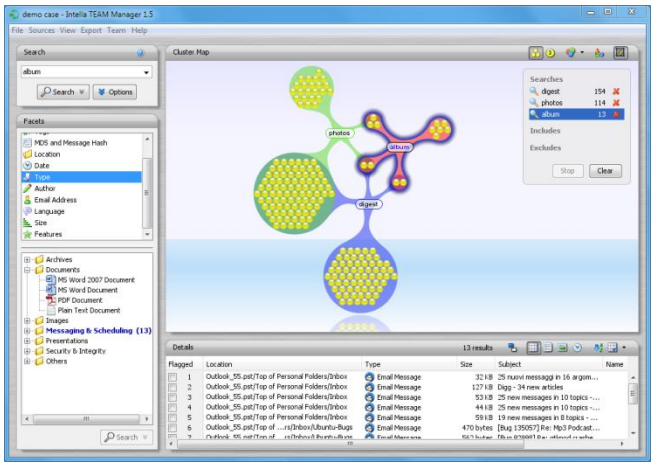
1 Preface

Intella is designed to be an email investigation and e-discovery tool. It is ideally suited for use by enterprise, law enforcement, and regulatory agencies in civil, criminal, or policy-related investigations. Intella is an excellent tool to prepare electronically stored information for discovery.

Intella's powerful indexing search engine and its unique visual presentation will let you quickly and easily search and review email and electronically stored information to find critical evidence and visualize relevant relationships.

With Intella, you can…

- Gain deeper insight through visualization
- Search email, attachments, archives, headers, and metadata
- Drill deeply using Intella's unique facets
- Group and trace email conversations
- Preview, cull, and deduplicate email and data
- Export results in a variety of formats for reporting, follow-up investigation, e-discovery, or later use



1.1 Document conventions

The following section introduces you to conventions used throughout the Intella documentation.

Menu Functions

For functions that can be reached through menus, the different menu levels are illustrated as follows:

Menu > Menu entry

Important Entries

Some text will be shown as follows:

Important: Important information on Intella.

These entries discuss a key concept or technical information that should, or must, be followed or taken into account. Please pay special attention to these entries.

Notes

Some sections provide additional information that will assist your use of Intella. These are displayed as shown below:

Note: Information on function or parameter.

Keyboard Shortcuts

Some Intella functions can be activated or accessed through keyboard shortcuts. They are shown as follows:

CTRL+E

Tips

A number of shortcuts, alternative methods, or general working tips are included throughout the documentation. These may help your workflow, or

provide additional information on other uses of functions. Tips are shown as below:

> Tip: Information on Intella.

Folder and file names

Folder and file names are shown as below:

```
C:\Program Files\Vound\Intella\
```

2 An introduction to Intella

Intella is an instrument for data and email investigation and eDiscovery. It helps you search and explore information stored on your computer, network disks, in email boxes and PST, OST and NSF files. Intella is being used by Law Enforcement, Legal and regulatory bodies to do all of the above.

Intella indexes all places where you expect valuable information and provides powerful means for retrieving that information. The important advantage over similar tools is that Intella presents the search results using facets and Cluster Maps. Facets allow you to find items based on more than just keywords and the visualization provided by the Cluster Maps allows you to see how files and emails are related to your query.

The birds-eye view helps you gain insight in information that is available on combinations of keywords. In each step of your search it shows the number of emails or files that match your search (and of course a link to the e-mails and files themselves) so that you can effectively zoom in to find what you are looking for.

Setting up Intella on your computer takes little time. Install the software, define the sources to search and explore and let Intella index the sources.

Searching with Intella is also easy. Start as if you are using a familiar search engine by entering a search term, or choose any value from the information facets. Let Intella help you to refine your question with a list of suggested refinements. Use Cluster Maps to get a comprehensive overview of the available information.

2.1 Key benefits

- Visualization of search results provides you with deeper insight. See how files and emails relate to parts of your query.
- Facets, like Type, Date, and Language, help you to drill down to the wanted information and to focus on the information you need.
- Search email attachments and archives, like zip files.
- Searching is simple and requires very little training.
- Export the search results for later use and for creation of reports.

2.2 Intella editions

Intella comes in seven different product editions. The table below shows the most important features of these editions.

	10 GB	100 GB	250 GB	Professional	Viewer	TEAM Manager	TEAM Reviewer
Preparation							
Case size limit	10 GB	100 GB	250 GB	none	none	none	none
Create new cases	●	●	●	●		●	
Index evidence files	●	●	●	●		●	
Investigation							
Search, filter & review	●	●	●	●	●	●	●
Preview items	●	●	●	●	●	●	●
Flag & tag items	●	●	●	●	●	●	●
Export items	●	●	●	●	●	●	●
Cooperation							
Export Cases	●	●	●	●		●	●
Import Cases	●	●	●	●	●	●	●
Export Work Reports						●	●
Import Work Reports						●	

2.3 Supported file formats

Intella can extract contents and metadata of the following file formats:

- Mail formats:
  - Microsoft Outlook PST/OST
  - Microsoft Outlook Express DBX, MBX
  - Lotus Notes NSF
  - Mbox (e.g. Thunderbird, Foxmail)
  - Saved emails (.eml, .msg)
  - Apple Mail (.emlx)
- Document formats:
  - MS Office: Word, Excel, PowerPoint, Visio, Publisher, both old (e.g., .doc) and new formats (.docx)
  - OpenOffice: both OpenDocument and legacy OpenOffice/StarOffice formats
  - Hangul word processor (.hwp files)
  - Corel Office: WordPerfect, Quattro, Presentations
  - MS Works
  - Plain text
  - HTML
  - RTF
  - PDF
- Archives:
  - Zip
  - Gzip
  - Bzip2
  - Tar
  - Rar
- iCal
- vCard
- XML

2.4 Supported sources

- **Folder**
  Files on local and network file systems can be indexed by Intella. Please check the list of supported file formats.

- **Microsoft Outlook file (PST, OST)**
  Emails and attachments in the email archive file of Microsoft Outlook can be indexed by Intella.
  Versions: 97, 98, 2000, 2002, 2003, 2007 and 2010

- **Microsoft Outlook Express file (DBX, MBX)**
  Intella will index emails and attachments stored in a Microsoft Outlook Express DBX and MBX files.
  Versions: 4, 5 and 6

- **Lotus Notes NSF file**
  Intella will index email and attachments in an email archive file of IBM Lotus Notes.
  Versions: IBM Lotus Notes 8.5 needs to be installed on the computer that runs Intella in order to process Lotus Notes NSF files. Intella supports all NSF files that can be processed by Lotus Notes version 8.5, or that can be converted to a NSF file that Lotus Notes 8.5 can process.

- **Mbox file**
  Intella will index email and attachments stored in Mbox files.
  Versions: We tested Intella on several email programs that use Mbox files with good results, e.g. Thunderbird and Foxmail.

- **IMAP account**
  Intella is able to access an email accounts on a IMAP email server and index emails and attachments.
  Versions: Intella was tested on several IMAP servers with good

results. However, we cannot guarantee that Intella is able to create IMAP account sources for every IMAP email server.

2.5 Supported platforms

Intella is currently only available for Windows 2000, Windows 2003, Windows XP, Windows Vista, and Windows 7.

Note that Intella is not supported on Windows 2008.

For detailed instructions about installation and running Intella, please read section 4: Installation and configuration.

2.6 Version history

2.6.1 Version 1.5.2

General:

- This version introduces a new product type: Intella Professional. Intella Professional has no hardcoded limit on the allowed maximum case size.

Indexing:

- Resolved issues with indexing folders in NSF files whose names contain unusual characters.

Searching:

- Made MD5 list search work with more plain text file encodings. This fix results in MD5 lists that are exported by EnCase to work without modifications to the file encoding.
  To benefit from this improvement, currently added MD5 lists need to be re-added to the case.
- Resolved a Cluster Map selection issue that was triggered by combining right-clicks with the Ctrl and Shift keys.

Exporting:

- Added support for exporting items as a Load File. This export is currently in the beta phase and may therefore change in future versions. Initially supported are Summation and Concordance.
- Intella 1.5.2 makes the export to i2's Analyst's Notebook and iBase available to all license types. Introduced in Intella 1.5.1, this functionality was originally only available to users of Intella TEAM Manager.
- Automatic numbering of exported files is now available in all product types.
- Minor improvements to logging, export reports and indexing of large XLSX files.

TEAM:

- Resolved an issue with work reports that failed to properly filter reviewer annotations by source.

Upgrade Notes:

- As part of its standard procedures, Intella will detect the version upgrade when you open a case made with 1.5 or 1.5.1 and suggest that you reindex the case.
    - Reindexing of a case made with 1.5.1 is only necessary for cases containing XLSX files that could not be indexed. When this is not the case, reindexing can safely be skipped.
    - Cases made with 1.5 will open with 1.5.2, but sorting of the Senders and Receivers columns may not work correctly until the case has been reindexed.
- Cases that were made with versions older than 1.5 cannot be opened.

2.6.2 Version 1.5.1

Installer:

- When installing on a Windows 2008 machine, the installer no longer blocks installation but instead warns the user that this is not an officially supported platform to run Intella on.

Case Management:

- Added a column in the case manager that shows the last version used to open a case.
- Resolved rendering issues in the case table when a case is imported or renamed.

Indexing:

- Improved the error messages shown when an NSF file is locked by another application or for some other reason appears to be inaccessible.
- Removed the "Add..." button from the Source Editor. The only way to add a source is by using the "Add New..." option in the File menu or through the Ctrl-N shortcut. This allows for a more streamlined user experience, as the indexing process that typically follows after adding a source blocks the main window.

Searching:

- Resolved an issue with keyword lists that were not being stored, due to illegal characters or other technical reasons.

Results:

- Improved sorting performance in the Details table. Both single column sorting and multi-column sorting benefit from major improvements in this area.
- The component that lets the user select the visible columns in the Details table has been redesigned to allow for the growing number of columns. The columns are now grouped into five meaningful categories.
- The Details table can now be configured what to show in the Senders and Receivers columns: email addresses, contact names or both.
- Right-clicking on a cluster in the Cluster Map now automatically selects that cluster when it is not part of the current selection. This prevents potential confusion on what the selected operation in the popup menu is going to work on.

Exporting:

- Added a fourth export type: iBase & Analyst's Notebook. This exports out information in a format that can be imported into these applications with the use of the provided templates and import specifications.
- Added a UTF Byte Order Mark to all generated CSV files. This improves how these files are displayed in Excel, especially when containing non-Latin characters.
- Added a template facility to the table CSV export: a specific arrangement of columns can now be stored under a user-defined name. This facilitates optimizing frequent export tasks such as exporting MD5 and message hash lists.
- Improved the performance of the first phase of exporting, where the items are sorted and prepared in other ways for exporting.
- The "Export…" menu option in the table's popup menu and other places is now explicitly disabled when you have selected a folder.
- Resolved an issue with exporting items that have an exclamation mark in the file name, under some circumstances these files refused to export.
- Improved the error messages shown during exporting that are due to NSF files being locked or that for some other reason are inaccessible.
- Resolved an issue with exporting mails from Mbox files to a PST file when the Mbox file comes from a UNIX/Linux machine. The difference in the encoding of end-of-lines between these platforms corrupted the display of certain mails.

TEAM:

- Resolved an issue with work reports failing to import due to tag names that are already in use. This can happen when (1) a tag with that name is added to the master case after creation of the ICF file that the reviewer is using, or (2) when a work report imported earlier introduced a tag with the same name. Such tags can now be renamed or merged with an existing tag during importing.

Upgrade Notes:

- As part of its standard procedures, Intella will detect the version upgrade when you open a case made with 1.5 and suggest that you reindex the case. The case will work without reindexing, but sorting of the Senders and Receivers columns may not work correctly.
- Cases that were made with versions older than 1.5 and could not be opened with 1.5 (grayed out in the Case Manager) remain inaccessible with version 1.5.1.

2.6.3 Version 1.5

General:

- Resolved an issue with Intella 1.4.3 failing to start on some PCs, exiting immediately with the message "Could not create Java virtual machine".
- Reduced memory usage of the application, allowing larger cases to be handled.
- Performance improvements throughout the application, making especially search operations and listing of facet values faster.
- Improved number formatting throughout the application.

Indexing:

- Improved the robustness of text, metadata and image extraction of files such as PDF, Word and ZIP files.
- Improved the extraction of deeply nested items in MS Office files.
- Improved indexing speed on PST and NSF files. A speed improvement of 10-50% can be expected on most PST and NSF files.
- Reduced duplicate messages extracted from NSF files.
- Added support for indexing Hangul word processor documents (HWP file format).
- Indexing speed statistics are logged to a CSV file in the logs folder, to facilitate the analysis of indexing performance bottlenecks.
- Improved the UI messages that are shown during (re)indexing.

- Resolved an issue where certain characters in an NSF file name or characters in a folder name inside an NSF file resulted in the file not being indexed.
- The folder tree in the Add Source wizard can now be refreshed to reflect changes in the file system. Right-click and choose Refresh, or move the wizard one step back and forth.
- Fixed missing message hashes in certain border cases, e.g. recovered mails.
- Improved parsing and handling of email senders and receivers that do not comply with the email standards.
- Improved error messages on files that are broken or otherwise impossible to index.
- When adding a new Folder source while using a license with a case size limit, a folder size check is always performed, to see if the chosen folder is larger than the remaining allowed case size. This check now shows a progress screen and can be skipped.
- All time-outs used during indexing can now be adapted if necessary.

Searching:

- Search performance has been greatly optimized through the use of a new, highly tuned database. Search results will now show almost instantly in the Cluster Map and Details views.
- The Source and Location facets have been merged. PST files and other mail container files now show up as nodes in a single folder tree, rather than as independent roots.
- Folders in the Location facet can now be searched with or without the inclusion of their subfolders.
- Folders can now be returned as search results.
- Improved the results of the Show Children operation on items containing folders, such as certain ZIP files.
- The Date facet now offers a calendar component for choosing the start and/or end date.
- Added categories in the Type facet for Contacts and Tasks extracted from PST files.

Tagging:

- Resolved an issue where the OK button in the Add dialog would not be enabled if any of the selected results already had the selected tag.
- Resolved an issue with the Remove Tags dialog showing tag counts that were too large.
- Tags that are already applied to all selected items are now disabled in the Add Tags dialog.
- Adding and removing tags has become faster.

Results:

- The Title/Subject column has been split into separate Title and Subject columns, as some document types support both fields.
- The counts shown in the Duplicates column (formerly the Copies in Source column) now reflect the number of duplicates in the entire case, rather than the number of duplicates within the same source.
- Resolved an issue with the deduplication function not removing all duplicates of an item.
- Enforced consistency between the Type facet's Images branch and the Thumbnail view: every item that is classified as an Image will now be displayed in the Thumbnail view, even when the Thumbnail view does not support that image format. In that case a generic icon is displayed.
- Improved image-related operations such as the Thumbnail viewer and the export to PDF when image caching is switched off.

Exporting:

- All terms in the index can now be exported to a text file, e.g. for use in a password cracking tool. For each term the field name (corresponding with the options in the Search options panel) and document frequency is optionally listed. When these options are used, the result will be a comma-separate value file (CSV format), with each keyword described on a single line.
- Additionally, the terms of a selected set of results can be exported.

- Improved the folder layout of the generated folders to more closely reflect the location of an item in the original evidence file.
- Resolved an issue where the generated PDF of a TIFF image would contain a barely readable image. The full resolution is now retained.
- The folder being exported to no longer has to be empty. A warning is now produced when the folder is not empty. Note that each export run will start new export reports, they are not merged.
- Concatenated PDFs can optionally be split in chunks of a given size. This improves stability of the export process.
- Fixes for various time-out issues. All time-outs used during exporting can now be adapted if necessary.

Previewer:

- Added a Words tab. This tab shows all terms in the full-text index that are associated with this result, ordered by field name. These fields correspond with the options in the Search options panel. The Words tab can be used to find out why certain queries won't match a particular document. The terms can be exported to a CSV file, together with their field names and other statistics.
- The tree structure shown in the Tree tab now fully corresponds with the tree structure shown in the Location facet.
- Improved the accuracy of hit highlighting for phrase searches.
- The Expand button in the Tree tab now has a corresponding Stop button, which lets you interrupt loading of the entire tree. The entire tree may be very large for file types like ZIP files.
- Enabled previewing of CSV and TSV files in their original layout.
- On small screens the default Previewer size will be reduced to fit on the screen.
- Resolved various memory leaks.

Case Management:

- The Case Manager disables (grays out) cases made with Intella 1.4.3 or older. Not only are the case data files incompatible with

this release, opening them with Intella 1.5 might also damage these files. Please use Intella 1.4.3 to open these cases.

- When opening a case, Intella would already check the presence of evidence files relevant for this case and give the user the opportunity to relocate the files, to work around changed folder names and drive letters. When relocating such a file, the file name and size of the chosen file is now checked against the name and size that the file had during indexing. A warning is displayed when these do not match.
- Resolved an issue with cases failing to correctly export to an ICF file due to the presence of certain non-ASCII characters in evidence file names.
- The audit trail now lists for each tagging action what tagging settings were used, i.e. what type of tagging inheritance was used (upwards/downwards/none) and whether automatic tagging of duplicates was used.
- When removing a case, the Case Manager now shows an animated indicator during the entire operation. Before, it would freeze until deletion had completed.
- Fixed an issue where exporting an ICF file failed due to lack of disk space, even though the free disk space was actually sufficient to hold the ICF file.
- Made the Attach Evidence dialog able to handle multiple sources with the same file path.

Licensing:

- Intella is now distributed as a single installer that automatically runs as the product edition licensed to you (e.g. Intella Viewer, Intella TEAM Manager, etc.). When licenses can be found on the connected dongle(s) for multiple product editions, a window is opened that lets the user choose the desired license.
- The trial license is now limited to indexing 10 GB of evidence files per case and can export maximally 1000 items at a time.

- The HASP Admin Control Center sometimes used to show product numbers instead of product names in various overviews. This has been fixed; the product name should now always be shown.

Upgrade notes:

- Intella 1.5 is not backwards-compatible: cases made with Intella 1.4.3 or older cannot be opened. This is because of the massive changes that were needed to improve search performance.
- Starting with version 1.5, sources can no longer be removed from a case, only added.
- The installer now refuses to install on Windows 2008. This has always been an unsupported platform on which the correct execution of the application cannot be guaranteed.

2.6.4 Version 1.4.3

Case Manager:

- The Case Manager now shows the full product name (including product edition) and the product version.
- The Case Manager now shows whether a trial license is used or, when running on a dongle, what the ID of the dongle is.

Indexing:

- Various stability improvements, including processing of very large XLSX files.
- Resolved an issue where words in DOCX files were concatenated in the extracted text.
- Improved text extraction quality on XLSX files.
- Resolved several text extraction issues with certain mails, including Chinese mails using GB2312 encoding.
- Resolved an issue with encrypted ZIP files not being classified as encrypted.
- Resolved an issue with incorrect dates in PST files. Before, a broken Date header could lead to an email not having a Sent date in the results list. Now, when a Date header is broken, the

PR_CLIENT_SUBMIT_TIME field is used instead as the Sent value.
- Resolved an issue with PST/OST files failing to index because of non-ASCII characters in the name of the PST/OST file.

Searching:

- Resolved an issue where the "Restore the queries that were shown last" option was set and tag queries failed to be restored.
- The keyword search history now looks up previous searches in a case-sensitive manner.

Results:

- Added a Source Path column to the Details table. This shows the full path of the source (e.g. the PST file). This improves reviewing of items from a large collection of evidence files, where the automatically chosen source name does not provide enough information to discern the origin of the information.
- Speed improvements for reviewing large documents.
- Speed improvements for quickly iterating over a list of results.
- Encrypted items are now displayed with a lock icon, to make it instantly apparent why no extracted content can be displayed.
- Applied whitespace normalization to the Contents tab: multiple blank lines are reduced to one line; multiple spaces are reduced to one space, etc.
- Reduced memory usage of previewing items.
- File type icons are now shown in the Type column and in the Type facet. The icon depends on the application that is associated with that file type on the local machine.
- The set of near-duplicates of an item no longer contains the item itself.
- Improved the automatically generated name of a set of near-duplicates.
- Resolved an issue with the Attachment tab in the Previewer failing to print.

Tagging:

- The tagging dialogs no longer have a shortcut button that opens the Tagging Preferences. Instead, the “Override tag preferences” subpanel has been extended with a “remember these settings” checkbox.
- Resolved refresh issues in the tags list and quick tags buttons shown in the Previewer.
- Resolved an issue with tags not always being propagated to other parts of the same mail.
- Resolved an issue where the Previewer window would disappear behind the main window after applying a tag.
- Improved the display of long tag names in the Previewer.

Exporting:

- Added support for export reports in HTML format.
- Stability improvements for exporting large result sets.
- Added the ability to let the generated PST be split automatically in chunks of a given size. This also improves stability of the export process. The export report mentions which PST an item was exported to.
- Optimized the layout of the exported PDFs to improve readability and reduce the number of pages.
- Applied whitespace normalization to exported PDFs: multiple blank lines are reduced to one, multiple spaces are reduced to one, etc. This improves readability.
- When exporting to both original format and PDF at the same time, the PDF can now optionally link to the corresponding original format file.
- Resolved an issue where the elapsed time and remaining time of exporting were not displayed.
- When exporting a single item, the mouse cursor now changes into a busy cursor while it is creating the file.
- Resolved an issue where an item could not be exported to a PST because the parent email could not be found.

- Resolved an issue where printed results were lacking images.
- Resolved an issue where embedded items were not exported to a PDF when the "Include embedded items" option was switched on.
- Attachments from EML and MSG files that are exported to original format now go into a folder nested in the message's folder and named after the message's subject (similar to PST, NSF, etc.). Before they would go into a numbered folder in the source root folder.
- When an item fails to export due to some error, it is no longer given the Exported status.
- The Export dialog now has an inline help option to explain what happens with email dates when exporting to a PST file.
- Rephrased some Export to PDF options for clarification.
- Improved export status messages.
- The default export folder has been changed from the user's home folder to the Desktop folder.

General:

- Improved various error messages.
- Various changes were made to protect Intella's databases against file corruption when an Intella process is terminated through the Task Manager.
- Improved automatic clean-up of temporary files, usually made during indexing and exporting.
- Various improvements to the information in the log files.

TEAM:

- The file numbering option in the Export dialog is now only enabled when Original Format and/or PDF is selected.
- The Tags and Features facets make a better distinction between tags, flags and comments made by the case manager and by a reviewer. Before, the difference was only clearly visible to the case manager.

2.6.5 Version 1.4.2

Indexing:

- Optimized memory usage of indexing of PST/OST/NSF files.
- Improved text and image extraction accuracy of PDF and MS Office files.
- Improved folder extraction of PST files that are made using the Hotmail Connector plugin for MS Outlook.
- Resolved an issue with near-duplicate hashing, where generated mail sources did not inherit the setting of the original Folder source.
- Resolved an issue with the Refresh operation incorrectly reporting removed items.

Search and Review:

- The date facet now allows the user to search a date range using multiple date attributes simultaneously. Prior to Intella 1.4.2, a drop-down list of attributes was provided, allowing the user to use only a single attribute per search.
- The user now has the ability to sort columns in the Details list by selecting the new Sort Table button. The user can sort based on multiple search criteria in both ascending and descending order. The Sort Table button is located in the upper-right corner of the details pane.
- The Intella Previewer contains a new tab called Tree. This tab allows the user to see the entire path, from root to descendants, of the selected item being reviewed, along with clickable file names and email subjects.
  The tab shows a column with checkboxes that can be used to tag multiple items at once. The user can also right-click and choose to select all above or select all below the clicked item
- The ability to search for child items is now available by
  - Right-clicking the search results in the details list and selecting Show children.

    - Selecting Show children from the Explore tab of the Previewer.

  Show children can search for directly or indirectly nested children. The preferred method can be specified in every search or set in the Search preferences.
- The Show parents option now allows the user to specify the level of search by selecting top-level parents or direct parents of the selected items. This option also allows the user to only consider the emails in the path (ignores items that are not email items) and to add all items that are already top-level items to the result.
- The number of copies is now displayed correctly in the Previewer when the number of copies equals 1 (two items with the same hash).
- The Preview tab, which allows the user to preview an item in its original layout, will appear for supported file types only.

Tagging:

- An inherited tagging feature is now available in the Add tag dialog. This feature allow the user to either tag the selected item only (item), tag all attached/nested items (item + children), or tag all other items nested in the same top-level item (parents + item + siblings + children).
- The user can also choose to automatically tag copies of the item by checking Tag all copies.
- These options can also be configured globally on the Tagging preferences tab.

Exporting:

- Additional options have been added for exporting to MS Outlook PST format.
    - The user can indicate how selected files that cannot be exported to a PST file directly should be handled:
        - Replace with its top-level parent email
        - Replace with its direct parent email
        - Skip

    - The user can indicate how selected emails that are also attachments should be handled:
        - Replace with its top-level parent email
        - Export the selected attached email
- The Source, Location and Tags values in exported PDFs are now located on the second page of the PDF under Properties. The user has the ability to exclude the Properties section when creating PDF exports. This allows potentially sensitive information to be excluded from the export.
- Improvements have been made to the export progress dialog.
    - The dialog no longer blocks the Intella user interface.
    - The elapsed time and the estimated time remaining are now displayed.
- Resolved issues with files that previously could not be exported by Intella.
- Intella no longer places items that fail to export in the Exported category of the Features facet.
- Improved tab printing capability of item contents.
- The file chooser in the Export dialog is now able to create new folders in non-regular Windows folders, such as the Desktop and My Documents.
- After exporting an entire case to an .icf file, a dialog will show the path of the created .icf file together with the paths of all evidence files that also need to be distributed to those importing the case.

TEAM:

- The default TEAM work folder has changed from C:\Users\USER to C:\Users\USER\Desktop.

General:

- You can now move and resize the Intella user interface when the Add New Source wizard is open, e.g. after opening a newly created case.
- If Intella fails to open a case, an improved initialization error message will provide the user with possible causes and solutions.

- Improved the warning dialog that is shown when opening a case made with a different Intella version.

Upgrade Notes:

- Cases made with Intella 1.4.2 cannot be opened by older versions due to changes made to the text indexing.
- Existing cases made with earlier Intella versions can be opened by Intella 1.4.2 but will require the case to be re-indexed. Tags, flags and comments will be preserved when upgrading from 1.4.(1) to 1.4.2. For cases made with older versions, please check earlier upgrade notes.

2.6.6 Version 1.4.1

- Resolved an error that could occur during importing of large Intella case files (.icf file extension). Importing of these files would typically exit immediately with an error message stating that the case file is not valid. ICF files on which this error occurred will have to be recreated with version 1.4.1.
- Phrase searches using smart quotes are now supported. Such quote characters are typically inserted by word processors like Microsoft Word when typing the quote character.
- Resolved an issue with recovered mails from PST/OST files that could not be exported.
- Resolved an indexing error that occurred on empty folders in PST/OST files.
- Intella cannot export to PST files when the full path to the PST file is longer than 256 characters. Attempting to do so would result in a cryptic export error. Intella now checks the length of the path and gives a more informative error message. This allows the user to fix the path before proceeding with the export.
- Improved PST/OST indexing debug messages.

Upgrade Notes:

- As always, a full re-index of the case is necessary to benefit from the changes in this version. After re-indexing a case made with version

1.4.0, the database IDs of recovered mails may have changed. Consequently, the tags, flags and comments of these recovered mails may be lost.
Regular (non-recovered) PST/OST mails as well as mails from other mail sources are not affected; their tags, flags and comments will be retained during a full re-index.

2.6.7 Version 1.4

Intella 1.4 delivers significant new features, enhancements and performance improvements to Intella. Version 1.4 also introduces a new product: Intella TEAM.

Intella TEAM enables multiple individuals (reviewers, investigators, paralegals, etc.) to review evidence independently and simultaneously. Their individual work products can then easily be merged into a single result**.** Intella TEAM has two components:

1. Intella TEAM Manager is the primary component and performs three critical functions:
    a. Indexing & preparation of the case data or evidence
    b. Sharing of the case data among others
    c. Combining the work product of others
2. Intella TEAM Reviewers provide the ability to independently search, filter, bookmark, tag, and comment on the case data and transfer the results of that work back to the TEAM Manager.

Important Note**:** Intella TEAM Reviewers CANNOT index or re-index the case data. Only the TEAM Manager can index data.

Case Management:

- Indexed evidence files may now be moved and accessed more easily. Previous Intella versions required that evidence files were to always be found at the same location, the initially used for indexing. That restriction made moving evidence difficult.

- Intella will now detect moved files during startup and open a dialogue that will enable the user to locate the drives, folders, or files.
- Allows for browsing to existing case folders.
- Case importing and exporting now checks for available storage space before starting the operation.
- Case importing and exporting operations now include progress monitors and the ability to interrupt the process.
- When importing cases, the target location can now be specified. (Previously, only the default location was possible.)
- Importing now accepts ZIP files containing an entire case.
- When importing a case that is already present, a warning is now given.
- The "Remove" button is renamed "Delete" and a clear warning message is provided.
- Error fixes were applied to:
    - Keyword search history and other stored preferences related to exporting a case
    - A log file issue related to the use of brackets or other special characters in a case name.

Indexing:

- Added extraction of images from PDF files.
- Added support for Foxmail email boxes (.box). Because Intella Rel.1.4 treats .box as a special subtype of Mbox files, use the Mbox source type when indexing. When .box files are contained in a folder, Intella will generate the required Mbox source automatically.
- Added support for Apple Mail email boxes (.emlx files). Because Apple Mail stores every email as a single .emlx file, use the Folder source to index.
- Added detection of AppleDouble header files containing Apple Resource Forks.
- Added support for older Outlook Express 4 (.mbx files).

- Intella-generated source names are now always unique. Thus multiple and different Outlook.pst files will result in sources of differing names, e.g. “Outlook.pst” and “Outlook.pst (2)”, etc.
- Added an artificial X-Intella-Type header to items that actually represent other PST/OST artifacts such as notes, tasks, contacts, meeting requests, etc.
- Error fixes were applied to:
    - Time-out issues with certain email files.
    - Enabled indexing of PSTs containing unnamed folders.
    - Enabled proper indexing of emails with no subject lines.

Searching and Reviewing:

- Added a Preview tab in the Previewer window, rendering the selected item in its original layout, limited to the first few pages (hence “Preview”). For example, the first few pages of a Word document can be shown with its original formatting, embedded images, etc. This functionality is limited to Word, Excel, PowerPoint, PDF, RTF, HTML, OpenOffice and WordPerfect files. The Preview capability requires MS Office to be installed (Office 2007 requires PDF Add-in).
- Added new categories to the Features facet:
    - “Previewed” shows all items that have been opened in the Previewer.
    - “Opened” shows all items that have been opened in their native application.
    - “Exported” shows all items that have been exported.
    - “Unread” shows all emails that have an unread status in the evidence file (applicable to PST/OST only).
    - "Empty Document" identifies all items that have no text but where text would normally be expected. A common scenario is a PDF file where all text is contained in images, typically a scanned document. The results of this category are typically candidates for OCR or encryption cracking tools.

- Several of the Features facets are now "multi-user aware." That is, after importing one or more work reports in the Team Manager version, you can see which files were previewed, tagged, etc. and by whom.
- Improved memory usage when querying large amounts of items.
- The Auto-Advance option in the Previewer window has been made persistent.
- The Previewer now checks for unapplied comments before allowing the user to close the window.
- As a precaution, the tagging, commenting and flagging code verifies that those annotations are stored accurately and shows an error message when this is not the case.
- The "Copies" column has been renamed to the more accurately "Copies within source". Also "Show copies" has been renamed to "Show copies within source".
- The semantics of the Copies column and Show Copies functionality has been changed: when searching for all copies of an item, the item itself is no longer returned. Thus the count is one less than before.
- The "MD5 Hash" facet has been renamed to "MD5 and Message Hash".
- Changed the Location facet to show the source file names as the roots for PST, OST and NSF files. This solves the problem of a large list of folders all named "Ext-Root," now making it apparent which email file they relate to.
- Error fixes applied to:
    - Hit highlighting in the Previewer
    - Missing file names for EML and MSG files in the Previewer
    - Incomplete highlighting of values in the Location facet

Exporting:

- Improved the layout of the export dialog to more efficiently use the available window space.
- Exporting to PST has a revised set of options, giving more control over what is exported into the PDF.

- Added the ability to add the original rendering of an item to the exported PDF, i.e. the contents of a Word document is shown exactly as Word shows it.
- In Team Manager and Team Reviewer only: added the ability to consecutively number exported files, optionally with a prefix and given start number.
- Exported PDFs have simplified headers and footers – optionally only the consecutive number is displayed in the footer.
- The export order has been improved:
    - First, all items are sorted by source.
    - Next, emails are sorted by Sent date.
    - Each email is immediately followed by its attachments.
    - Each attachment is directly followed by any embedded items.

  The order is relevant for export reports and when concatenating all exported PDFs into a single PDF.

- Exporting of results into their original format has been made much faster.
- Improved memory usage when exporting large amounts of items. When exporting items while memory usage is already high, Intella may suggest removal of the search results from the screen before continuing with exporting the selected set. This frees memory for the export process.
- Improved validation of user-entered information in the export dialog.
- Added a CSV export report type. The CSV report lists all item metadata, accompanied by the names of the exported files in original format and PDF format. When using consecutive numbering of exported files, the prefix and number is listed as a separate column. Finally, the last column contains any export errors that occurred.
- PDF and RTF export reports now show a divider between the item sets of different sources. The PDF report uses headings that appear

in Adobe Acrobat as bookmarks. This can be used to quickly jump to the items of a specific source.

- Improved the export folder layout. Items in their original format, PDFs and PSTs, are clearly separated.
- Error fixes applied to:
    - Fixes for multipart/alternative emails that were missing HTML parts when exported.
    - Fixes for exporting emails with non-Latin content to PDF.

2.6.8 Version 1.3.4

- This release contains a fix that ensures that folder names inside PST and OST files are indexed, so that you can find emails using keyword search on the folder names. Previously this was not done for PST and OST files. Other mail formats did not have this problem.

2.6.9 Version 1.3.3

- Further improvements in recovery of deleted mail from PST/OST files.

2.6.10 Version 1.3.2

User Interface Improvements and Fixes:

- Tagging Fix: The “Tags” line in the properties panel of the Previewer updates correctly now when the last tag is removed from a tagged item.
- Lotus Notes validation: Improved user notification makes it clearer that Lotus Notes application files are missing or that the detected Lotus Notes version doesn't meet the required minimal (most current) version.
- Menu Bar Update Notification Fix: When the “Update Notification Message” on the Menu Bar is selected in Windows 7 the correct browser window (on the Vound website) now opens.
- Case Importing Fix: A network connection is NOT required when importing a case.

Indexing Improvements and Fixes:

- Lotus Notes indexing fixes:
- Fixed missing last modification dates for attached messages in an NSF file.
- Fixed missing inline images in RichTextItems in an NSF file.
- Stability improvements for memory-intensive indexing tasks.
- Improved PDF text and metadata extraction accuracy.
- Removed all quotes from the displayed contact name in the Sender and Receiver columns in the Details Panel and the Email Address Facet

Exporting Improvements and Fixes:

- Stability improvements for the PST creation process.
- Improved the recovery of deleted mail from PST files, resulting in more extracted mail and attachments.
- Corrected issue that caused exported messages to be labeled "unread" when opened in Outlook 2007 and earlier versions.
- Mbox mail fix: Corrected folder path of exported Mbox mail to remove the path of the Mbox source file.

2.6.11 Version 1.3.1

New Features:

- Comments can now be added to items in the Previewer. Comments are searchable, displayed as a column in the Results table and can be exported.
- Import and Export Cases via the Case Manager to allow cases to be shared among multiple reviewers. An exported .icf file allows easy transportability and ensures integrity of the exported case. The import button allows the reviewer to select an .icf file for importing into the cases folder.
- TimeLine View can now be exported as a PNG image

- Search History can now be selected or turned off by user preference.
- Message ID Column is added to the Results table to display the value of the email's message ID. If no such header is present in an email, the column shows the Mapi-Smtp-Message-Id or Mapi-125-Message-Id header.

Improved and Enhanced Features:

- The MD5 column in the Results table now only shows the MD5 hashes of binary items (attached files and electronically stored information). A new Message Hash column shows hashes for email messages.
- The Message Hash algorithm has been rewritten so that the Message Hash values will remain constant when a case is reindexed with a newer Intella version.
- Improved the ability to recover deleted mails from PST and OST files.
- Exporting results as PDF files includes several refinements:
    - All PDF output can be concatenated into a single file instead of one file per result.
    - Options have been added to control the inclusion of email headers, extended properties and comments in the PDF document.
- Results tables that are exported to CSV now use a date format recognized by Excel, making it possible to accurately sort on these values.
- The ability to export lists of facet fields and their counts has been expanded to all facets. Enabling a reviewer, for example, to export a all document types and their counts, document authors and their counts, email addresses and their counts.
- The Case Manager now shows the size of each case. A feature of particular importance to Intella 10 users.
- The indexing statistics shown on the interface at the conclusion of indexing (number of files, messages, elapsed time, etc.) are now added to the log file and available for viewing.

- Because some facets take additional time to initialize, user activity in this state is now disabled so as to prevent incomplete CSV exports of these values.
- The text and metadata extraction accuracy of OpenXML files, also known as the MS Office 2007 formats (.docx, .pptx, .xlsx, ...) has been improved.
- Improved the extraction of values from vCards.
- Renamed the "Index images inside documents" option to "Index content embedded in documents," to more accurately describe what is controlled by this option.

Fixes:

- Fixed a problem with PST, OST or NSF files that failed to index due to a "No response from external process" error.
- Fixed broken Export to PST functionality due to a conflict with another installed application.
- Fixes for missing receivers in mails from PST/OST files.
- Fixes for missing dates in MSG files.
- Fixes for incorrect decoding of mail subjects, senders, receivers and dates.
- Fixes for incorrect representation of encrypted messages in PST/OST files.
- Fixes for incorrect attachments in NSF files.
- Fixes for the incorrect representation of attached messages in NSF files.
- Fixed problems with previewing mails that lack a subject.
- Fixed failing indexing of evidence files that have a hash character ('#') in their paths.
- Fixed errors with exporting mails from Mbox sources.
- The Thumbnails tab in the Previewer was sometimes not reset, resulting in the Thumbnails of the previous result being shown as part of the current result.
- Korean characters in case names were replaced by dashes in the suggested case folder.

- When Intella detects a version upgrade when you open a case, a dialog is opened that suggests reindexing of the case. A problem where this dialog appeared every time the case was opened has been fixed.
- When a case was moved to a different location, the ability to show thumbnails was lost due to the use of absolute paths in the database. Those absolute paths have been replaced by relative paths.
- Near-duplicate hashes are no longer calculated for items without text. This prevents these items from being considered to be near-duplicates.
- The counts in the Features facet were not updated instantly when results were tagged, flagged or commented on.
- The Tags facet should show user names of tag creators, not their UUIDs. This only affects exported cases that contain tags.
- Export reports (RTF and PDF) should use relative paths in their links to the exported files, not absolute paths.
- The Print Preview dialog will now always fit the current display, so that no buttons are truncated.

Upgrade Notes:

- As usual, when you open a case made with an earlier Intella version in Intella 1.3.1, Intella will detect the version upgrade and suggest that you reindex. Reindexing is necessary to make use of the many improvements outlined above. Two aspects are important to consider:
- After reindexing, the message hashes will differ. We have redesigned the algorithm so that this is not likely to occur with future version upgrades.
- Due to the requirement of a particular fix for indexing NSF files, some internal IDs of items extracted from these NSF files may differ. A consequence of this is that tags pointing to items from NSF files may become incorrect: they may no longer connect to an item at all or may connect to a different item. Should you have cases involving tagged items from NSF files, we recommend you

continue using the previous version for that case or, alternatively, completely rebuild the case with Intella 1.3.1.

2.6.12 Version 1.3

- Improved case management now allows better editing of case details, including investigator name and a case description.
- Improved feedback on indexing. Better progress reporting and statistics. The dialog that shows during indexing is no longer blocking. You can minimize the window now.
- Improved folder selection in New Source wizard
- Completely reworked Previewer. Now tasks like tagging, flagging, and finding copies of an item are offered in a strip of grouped buttons organized in three categories: Review, Explore, and Produce.
- Previewer is now the central instrument for productive reviewing of items allowing direct inspection of relations between items. For example: the relation between a zip-file and its entries.
- Previewer indicates the position of search terms in the scrollbar, and has Next and Previous buttons to quickly browse search term hits.
- Previewer indicates existence and allows you to navigate to duplicates (copies), near duplicates, emails in the same conversation, and parent items.
- Each Previewer can loop over its own results list, so changes in the results table have no impact on the operation of the Next and Previous buttons of existing Previewers. If the table is still showing the same list as when the Previewer was opened, table selection will be updated when the Next or Previous buttons are clicked.
- Improved thumbnail view. Thumbnails are now opened in separate previewer window. Like in table view, direct flagging of thumbnails and context menu operations are now possible.
- Thumbnail view shows not only the selected images, but also the images embedded in selected documents. This happens recursively,

e.g., an image embedded in a MS Word document that is attached to an email is shown when the email is selected.

- Extensive tagging functionality added. Tagging can now be done with fast tag buttons and keyboard shortcuts in the previewer.
- New export option added: Export to PDF. This option exports all the selected items to separate PDF documents.
- Item printing added. You can now print the contents of a previewer tab or print a report of the entire item. Added a print preview dialog.
- Ability to find near-duplicates of an item.
- Features facet added. This facet groups the following items: encrypted, flagged, tagged and items that have copies.
- MD5-list option added. You can now upload a list of MD5-hashes to see if these hashes match with the hash value of items in your case.
- Combined keyword lists are now supported. You can combine the results of all the keywords in your list in one results set.
- Many stability improvements. Lotus Notes 8.5 or higher is now required for processing NSF files.
- Sources panel is now automatically expanded when "No sources selected" warning is shown.
- The Sources facet is now the default facet when a new case is opened.
- New manually defined PST sources have the recovery switch by default set to “on.”
- Intella now automatically detects if Lotus Notes is installed on the computer. It is now very simple to configure Intella for Lotus Notes NSF files.
- Support for iCal and vCard added.
- More information is extracted from PST and OST files, e.g. meeting requests, tasks, contacts, and appointments.
- More information is extracted from Office files: various types of embedded objects.

- Case size limits are added. The evaluation version is limited to 10 GB. The dongle-controlled version will come in various case size limits.
- Added a License tab in the About dialog (Help > About), showing details of the currently active license.
- Many fixes for non-Latin languages.
- Support for Intella on Windows 7.
- As always, many stability improvements!

Notes on backward compatibility:

- When opening a case made with Intella version 1.2.2 or earlier, tags made in these versions will not be recognized.
- The MD5 hashing of email messages is changed in 1.3. The MD5 hash value of email message made with Intella version 1.2.2 or earlier will be different from the MD5 hash value created with version 1.3.
- Some items will have different URI's compared to URI's created in older Intella versions.

2.6.13 Version 1.2.2

- Stability improvements have been made for Lotus Notes (NSF) file indexing and exporting. In earlier releases, on rare occasions, an NSF file (usually a corrupt file) caused Lotus Notes to crash. When that happened, Intella would be shut down as well. Enhancements in Release 1.2.2 will prevent Intella from crashing under that circumstance. Under that circumstance, Intella will now continue processing the remainder of the file.
- Note that the Vound Forum contains a number of tips for fixing corrupt NSF files. You can register on the Vound Forum at this location: http://support.vound-software.com
- New automatic updater that periodically checks for a newer version of Intella over the internet. This option may be switched off.
- The Previewer features several improvements:
    - For archives (e.g., ZIP files), an Entries tab is shown that lets the user see and navigate the contents of the file.

    - The Properties tab shows an additional number of metadata fields.
    - Icons are shown for known file types, making, e.g., Word files instantly recognizable.
    - Finally, a number of usability improvements have been made.
- Previously, during a Refresh operation Intella would occasionally mistakenly report changed items when the evidence files had, in fact, not been changed. This has been fixed.
- The Add Source wizard remembers the last path of the chosen source files.
- When navigating with the Previewer from result to result, the Results table will now adapt its selected row accordingly.
- The "Export to PST" option is now explicitly disabled when Outlook cannot be found, rather than producing errors during export.
- A number of fixes have been made for retrieving and interpreting mail messages and for indexing corrupt ZIP files.

2.6.14 Version 1.2.1

Indexing:

- Extraction and indexing of Word revision logs, consisting of the last 10 authors and full paths saved to. All authors are listed as contributors in the Author facet and both authors and save paths can be found using keyword search. Note that not all Word versions maintain such a log.
- Added support for Word 6/Word 95 documents.
- Prevent caching of images that are directly available in the file system.
- Show elapsed time during indexing.
- Mistakenly reported unchanged items during indexing of archive entries.
- Broken body extraction of multipart/related messages.

Searching:

- Split up the People facet in separate Email Address and Author facets.
- Extended the Email Address facet with lists of all From, Sender, To, Cc and Bcc values.
- Added exporting of encountered email addresses with their occurrence count.
- The Date facet no longer offers pre-defined date ranges. Instead, the custom date range selector has been given a more prominent place in the interface.
- Extended searching for dates: specify whether you want to search for file last modification dates, content created or last modified, sent or received dates.

Previewing & Results:

- Added columns for File Last Modified, Content Created, Content Last Modified, Sent and Received dates.
- Show the full date and time of a timestamp in the Results table, rather than only the date.
- Added Attachments column, showing the names of the attachments of a mail.
- The Attachments tab of a previewed mail now shows the subjects of the attached messages.
- The row number in the flagged column did not match the row number shown in the Previewer.

Exporting:

- Added "Create new folder" button in the Export dialog.
- Add all known timestamps (created, last modified, etc.) of each exported result in an export report.
- Export to PST: emails with non-Latin subjects could not be exported.
- Fixed broken export of Chinese mails from NSF to EML.
- Some emails exported to EML format lacked a Date header.
- Messages with missing content could not be exported.

Miscellaneous:

- HASP license server installation fixes.
- Some preliminary Windows 7 fixes. Intella now runs on Windows 7 with a small number of known issues left to be worked out: no log file is stored; opening of results in their native application sometimes fails.

2.6.15 Version 1.2

- Added an option to recover the deleted items from PST and OST files.
- Index partial mails found in PST and OST files.
- Added support for indexing Mbox files.
- Index a folder of mail files: New sources are created automatically for each mail file, you are no longer required to add them one-by-one.
- Export search results to PST files.
- Filter visualized results with includes and excludes sets.
- Added a Timeline view as a fourth type of result view.
- Added the Keyword Lists facet: search using keywords lists.

2.6.16 Version 1.1

- Better performance and stability with new PST and OST crawler.
- Support for MS Outlook Express DBX files.
- Support for RAR archives.
- Preview shows extracted text with search term highlighting.
- Image extraction from Word, Excel, PowerPoint and OpenXML.
- Thumbnail viewer as an alternative for the table and list views.
- Support for Asian languages.
- Search on arbitrary date ranges in the Date & Time facet.
- Support for queries that start with a wildcard ('*' or '?').

2.7 Feedback

We take great care in providing our customers with a pleasant experience, and therefore greatly value your feedback. You can contact us through the form on http://www.vound-software.com/intella/support or by mailing to one of the email addresses on the Contact page.

3 Getting support

3.1 Different ways to get support

Vound offers four support options designed to assist users that experience problems while working with Intella™:

1. Standard technical support
2. User support contract
3. Vound User Support portal
4. Certified Intella™ training courses

3.1.1 Standard technical support

Standard technical support is offered free of charge to all Vound customers that have a current support and maintenance contract.

Standard technical support can be requested at the Vound support page, http://vound.helpserve.com/, or http://www.vound-software.com/intella/support.

Support is provided on business days, Monday through Friday. We attempt to give you a first answer within 2 business days.

All communication will be remote – e-mail, GoToMeeting, and other means – and not in person unless otherwise arranged.

Standard technical support will only be provided if your computer and operating system meet the minimum recommended specifications listed in the latest version of the Intella™ manual.

Who is eligible for technical support?

Our goal at Vound is to provide our customers high quality and timely technical support. To do this we limit technical support to the registered owners of Intella. Companies that allow a third party to use their Intella

licenses must have that third party channel all technical support through the original registered owner of the software.

To ensure that we support our customers, Vound regrets it cannot support users who are not the original registered owner of Intella.

What technical support is included?

- Installation and set-up support limited to one computer in your environment.
- Configuration technical support and user support on use for standard Intella™ options.
- Support for errors in the software (bugs).

Please note that Vound will make reasonable efforts to correct identified software errors. However this may not be achievable until a later date or version release. If this is the case, the user should make efforts and take responsibility to achieve the required outcomes via other methods. Where the errors relate or are caused by corrupt data (within source files), Vound reserves the right to charge for the work needed to rectify the issue.

No support can be provided…

- When your computer does not meet the minimum or essential system requirements.
- When you made any kind of modifications to the installed software.
- When you are not using the software for its intended purpose.
- When 3rd party applications, like virus scanners, firewalls, and other forensic applications, interfere with Intella™.
- Explaining the method needed to use each feature to achieve a set outcome.

Note: At no time should Vound technical support be seen as legal or forensic advice. Our support is given with no knowledge of the specific case or matter Intella is being used on. Technical support is focused on the correct installation and usage of Intella features. We do not warrant that we are aware of all facts around the case that may be under investigation. As such our replies should not be seen as advice or the only way to achieve the required outcome.

3.1.2 User support contract

A paid user support contract is offered to those customers that want additional user support. The user support contract provides assistance that falls outside the standard support package (see 1.1.1 Standard technical support).

What can be included in the user support contract?

- Help with the case or setup configuration of Intella™.
- Assistance in using the basic and advanced features of Intella™ such as searching, tagging, and exporting.
- Help with the installation of Intella™, or help with the configuration and set-up of your computer that runs Intella™.
- Detailed explanation of Intella™ case management and help with Intella™ case setup.
- Help with the export of search results found with Intella™ for use with other applications.
- Support for using Intella™ in combination with software from other vendors.
- Support for issues that a newer Intella™ release has addressed.

How to buy to a user support contract?

User support contracts are based on your specific needs. If you want to know more, please contact your nearest Vound representative or your local Intella™ reseller.

3.1.3 Certified Intella™ training courses

Vound offers a number of paid training courses for its product. These courses are designed to expand your effectiveness and output when using Intella™. It is recommended that all users take a minimum basic training course to ensure they are correctly using the product.

Users who have taken a recent training course for their Intella™ product will be offered a discount on a paid user support contract.

3.2 Working with Vound support

It is highly recommended that customers and users take advantage of the Vound support page when seeking assistance. The support portal takes care of collecting all necessary information such as the Intella version, Windows version, source types used, etc. and will suggest relevant articles from the Intella knowledge base.

3.3 Upgrade contract

Vound customers that purchased an Intella license are entitled to install free upgrades of the software for a period of one-year. In other words: an Intella™ license comes with a one-year upgrade contract.

After this period purchasing an upgrade subscription will continue the upgrade contract. Please contact your nearest Vound representative for more information.

Please know that you will only have access to standard technical support if you have an upgrade contract.

4 Installation and configuration

4.1 Installation

4.1.1 Step 1: Check the requirements!

- *Operating systems*
  Intella is supported on the following operating systems:
  - Windows 2000
  - Windows 2003
  - Windows XP
  - Windows Vista
  - Windows 7

- *Minimum hardware configuration*
  The minimum hardware configuration is an Intel Pentium 4 CPU, 2 GHz with 2 GB RAM.

- *Recommended hardware configuration*
  The recommended hardware configuration is a system with an Intel Core Duo CPU with 4 GB RAM and 2 GB of HD space. Allow extra space for case files and evidence data.

- *No need for Microsoft Office installation*
  No Microsoft Office installation is required to index PST/OST files or any MS Office document formats.
  For exporting *to* PST files, Microsoft Office 2007 or higher (2010 is recommended) still needs to be installed locally.

- *Lotus Notes 8.5 or higher*
  In order to index NSF files, Lotus Notes 8.5 or higher is required.

Note: Intella needs to know the location of Lotus Notes in order to index NSF files. Please go to File > Preferences > IBM Lotus Notes to check if the location is validated.

4.1.2 Step 2: Learn about licenses and dongles

Notes on the trial license that is bundled with the software that you have downloaded:

- *14-Day evaluation period*
  The trial version runs under a HASP Software License, which gives you the ability to use Intella for 14 days. The 14 days evaluation period cannot be extended. The only way to continue using Intella is to purchase a dongle.
- *Trial restrictions*
  Besides the 14 days of usage, the trial only allows 10 GB of evidence files per case. Also, exporting is limited to maximally 1000 items per export.
- *Continue working with a USB dongle*
  If you would like to continue using Intella after this 14 day period, you will need to buy a license. After buying the license you will receive a USB dongle that will allow you to continue using the version you already installed.
- *System clock*
  Changing the clock on your system will cause the trial to automatically expire. When this occurs, the only way to continue using Intella will be to purchase a license.
- *Virtual Machines, VMware*
  The evaluation version will not work in VMware without a dongle.
- *RDP (Remote Desktop Protocol) connection*
  The Intella evaluation version can only operate over an RDP (Remote Desktop Protocol) connection with a licensed dongle. The

trial license cannot be used over RDP. The dongle must be in the computer running the Intella software, not in the computer running the RDP viewer.

- *Other dongle-protected software must be closed*
  All other HASP protected software, like EnCase (Guidance), Smart Mount (ASR Data), HBGary and i2 products, must be closed when installing Intella.

4.1.3 Step 3: Install the software

1. Download Intella through the download page on the Vound website: http://www.vound-software.com/
2. Double-click on the downloaded .exe file to launch the installer. Accept the license.
3. Enter the location to store the application files and shortcuts or accept the default settings. All files will be extracted to the location of your choosing and an Intella shortcut is (optionally) placed on your desktop and in your Start menu.

The application folder contains an executable called "Intella.exe" that can be used to launch the application. The desktop and menu shortcuts also start this executable. The program will start with the Case Manager window.

Important: Intella will not install in an installation folder of an earlier version. Install a new version of Intella in a folder with a new name, for example:

```
C:\Program Files\Vound\Intella 1.5\
```

4.2 Installation troubleshooting

4.2.1 Error code 7 (H0007)

"HASP key not found (H0007)"

This error code might be caused by other HASP dongle protected programs. Please close down all HASP related programs (i.e. EnCase, Smart Mount) and reinstall Intella.

4.2.2 Error code 27 (H0027)

"Terminal services detected, cannot run without a dongle (H0027)"

This error code may be triggered because you are trying to use Intella via a remote desktop connection. Intella will only run via a RDP or terminal session with the dongle in place.

4.2.3 Error code 31 (H0031)

“Could not find a valid Intella license, please insert a dongle”

This error message is shown when your trial license has expired, or when you unplug your dongle while Intella is running and it cannot fall back to a non-expired trial license. You can only continue using Intella by inserting a dongle.

4.2.4 Error code 33 (H0033)

"Unable to access HASP SRM Run-Time Environment (H0033)"

This error code may be triggered if you run antivirus software. It is probably due to the antivirus software incorrectly blocking access to the HASP install. Please update your antivirus software to the latest virus definition file.

If this problem persists, reboot your computer, open a Command Prompt and run (as administrator)

```
<intella-dir>\bin\haspdinst.exe -i -kp
```

and restart Intella.

4.2.5 Error code 37 (H0037)

Other HASP dongle protected software may cause this error. Please close down all HASP related programs (i.e. EnCase, Smart Mount) and reinstall Intella.

If this problem persists, open a Command Prompt and run (as administrator)

```
<intella-dir>\bin\haspdinst.exe -i -kp
```

and restart Intella.

> Tip: To open a Command Prompt and run as administrator (in Vista and Windows 7), please select Start > Accessories > Command Prompt. Right click and select "Run as administrator."

If problem persists after running this command, please open a Command Prompt and run (as administrator)

```
net start hasplms
```

4.2.6 Error code 41 (H0041)

"Your Intella (trial) license has expired (H0041)"

This error will be triggered if Intella is run and your trial license has expired. Once the trial has expired, you can only continue using Intella by inserting a dongle.

4.2.7 Error code 51 (H0051)

"Virtual machine detected, cannot run without a dongle (H0051)"

In order to protect our intellectual property, the evaluation version of Intella WILL NOT run in a virtual machine (VM) environment. A "stand-alone" machine is required. This is only true for the evaluation version; Intella will run in a VM environment using a dongle.

Solution 1: Reconnect the USB dongle to your computer
Solution 2: Install the Intella evaluation version outside a virtual machine

4.2.8 Where are Intella's data files located?

There is an Intella data folder in your home folder. The actual path to this folder depends on your platform.

- Windows Vista and Windows 7

```
C:\Users\<USERNAME>\AppData\Roaming\Vound\Intella
```

- Windows 2000, 2003, XP
  ```
  C:\Documents and Settings\<USERNAME>\Application Data\Intella
  ```

4.2.9 Where can I find Intella's log files?

You can find the log files in the "logs" subfolder of the Intella data folder (see the previous question).

The log files can be opened in any text editor like TextPad or NotePad++. Be aware that Windows' default text editor NotePad has issues opening large files.

Tip: Click Help > Open Log Folder to open the log folder.

4.2.10 What is required to run Intella?

1. *Operating systems*
   Intella supports Windows 2000, 2003, XP, Vista, Windows 7.

2. *Minimum hardware requirements*
   The minimum hardware configuration required is an Intel Pentium 4, 2 GHz with 2 GB RAM.

3. *Recommended hardware requirements*
   The recommended hardware configuration is an Intel Core Duo with 4 GB RAM or better. Intella requires 2 GB of HD space. Additional disk space will be required for case files and user data.

4. *Microsoft Office is no longer required*
   Microsoft Office 2007 is no longer required to index PST and OST files as it was in previous versions.

Note: If you intend to export to PST files you will need Microsoft Office 2007 installed on the same computer.

5. *Lotus Notes 8.5 or higher*
   In order to index NSF files, Lotus Notes 8.5 or higher is required.

4.2.11 How to add a Lotus Notes NSF source?

If you want to index Lotus Notes NSF files Lotus Notes 8.5 needs to be installed on your computer.

If the "Lotus Notes NSF file" option is grey in the Add New Source wizard, please check File > Preferences > IBM Lotus Notes tab. If the status is not “OK”, please click Browse... and select the correct path to the installation folder of IBM Lotus Notes.

4.3 Other frequently asked questions

4.3.1 How is a file type determined?

Intella looks for certain binary markers (so-called magic numbers) that identify certain file types regardless of the file extension (e.g., .pst, .doc, etc.). When this detection process fails to produce a detected file type, Intella uses a list of known file types by file extensions. Intella may not be able to determine the file type of files with non-standard (unknown) file extensions.

4.3.2 Why are some characters ignored in search queries?

This is caused by what is called the analyzer: before an item can be indexed, the analyzer breaks down the text in order to determine the individual words used in it. This analyzer discards white space, punctuation characters, etc. The same analyzer is also used to break down your query into individual terms.

As non-letters and non-digits are ignored, for example, the queries “searchterm,” “searchterm/” and “searchterm ” (with an extra space at the end) all end up being equivalent.

4.3.3 How about live indexing (F-Response and Intella)?

Some cases may require you to index files while the computer is being used, or across a network. For such cases we have made Intella to work with the best-of-breed application F-Response, by Matt Shannon. This combination provides you with a live forensic solution for under $300.

You can obtain F-Response at www.f-response.com.

4.3.4 How about email attachments?

Intella will search both the email and the attachment for the keyword(s) and metadata.

4.3.5 Can Intella deduplicate search results?

Yes, Intella can deduplicate search results. During indexing, the checksum (hash) of every item is stored. Intella can be set to show or hide duplicates while you use it. Intella uses the MD5 hash to calculate checksums.

4.3.6 Can Intella index an Encase image?

Using an image mounting tool like Andy Rosen's SmartMount, Intella can index the Active files only. To index the unallocated you should first carve the image, save the data to a folder, and index that along with the image using Intella.

4.3.7 Are there any EnScripts for use with an Encase image?

In collaboration with a number of users Vound has created an “Export to Intella” EnScript. The EnScript is freely available for Intella users. Please contact our support department for a download link.

This EnScript Package is designed to provide a simple, yet powerful, method to export relevant electronic files, including email, documents, and images, from EnCase to Intella for efficient investigatory review prior to full forensic analysis.

4.3.8 How to print and export PDF reports with characters of my language?

By default, Intella supports printing and PDF generation for basic Latin character set only. To enable printing and PDF export for a language with another character set, you need to install an additional Unicode font that supports your language.

1. Download the font file and install it in your system
2. Copy the font file to the font subfolder of your Intella installation: `C:\Program Files\Vound\Intella\font`
3. Restart Intella

The font must be a Unicode TrueType font with ".ttf" file name extension. It is recommended that the Intella font folder contains only one font file.

Recommendations for font selection:

- For other languages than Chinese, Japanese or Korean, it is possible to install a single universal font supporting a broad range of character sets. You can take a look at the GNU FreeFont font collection at http://www.gnu.org/software/freefont/.
- For Chinese, Japanese or Korean languages it is recommended to install a language-specific font. A large list of fonts for different languages and writing systems is available at http://www.wazu.jp/.If you already have the native font installed on your Windows system, you can copy it from "C:\Windows\fonts" to the Intella "font" folder.

5 Dongle activation

Overall process

To protect our intellectual property, dongles may not be activated when shipped. Therefore, it is necessary to activate your Intella dongle in order to use Intella.

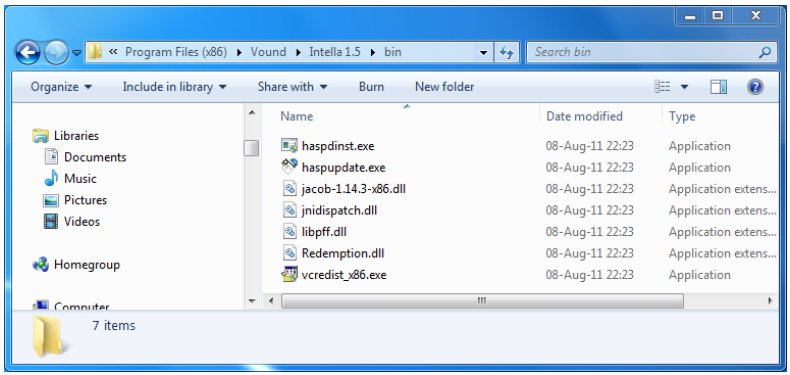
Dongle activation is a two-step process:

- *Step 1:* Collect your dongle and license information and send it to Vound Support at: support@vound-software.com.
- *Step 2:* Apply the license update file(s) you receive from Vound Support.

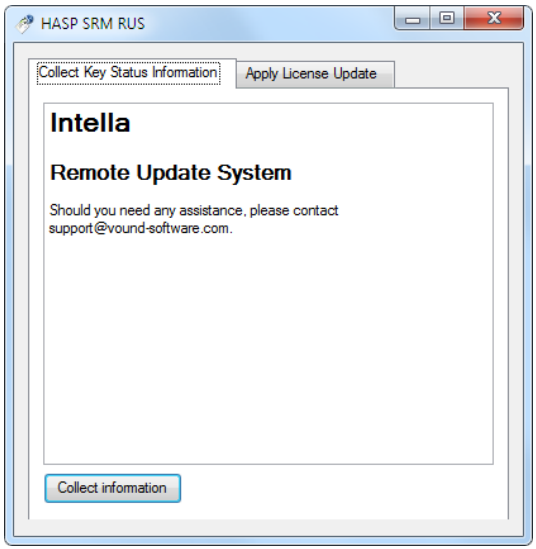
Step 1: send dongle information

1. Plug your dongle into an available USB port.

2. Start “haspupdate.exe”. You will find haspupdate.exe in the bin folder in the installation folder of Intella. The default installation folder is:
   `C:\Program Files\Vound\[Intella product folder]`

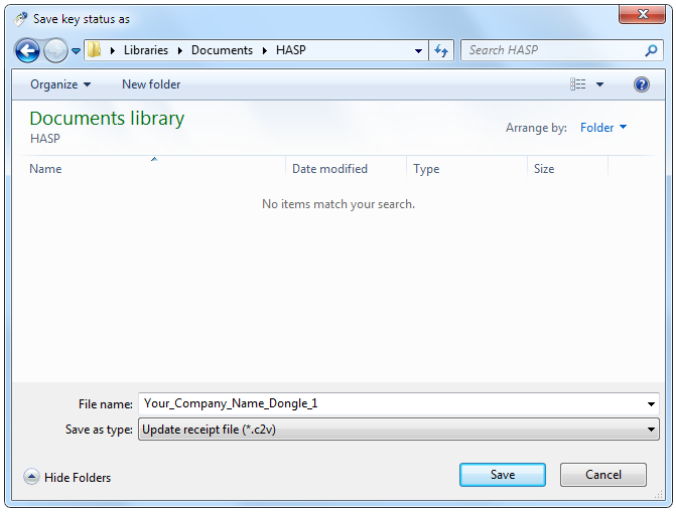


3. Click the Collect *Key Status Information* tab.
   Click *Collect information*.

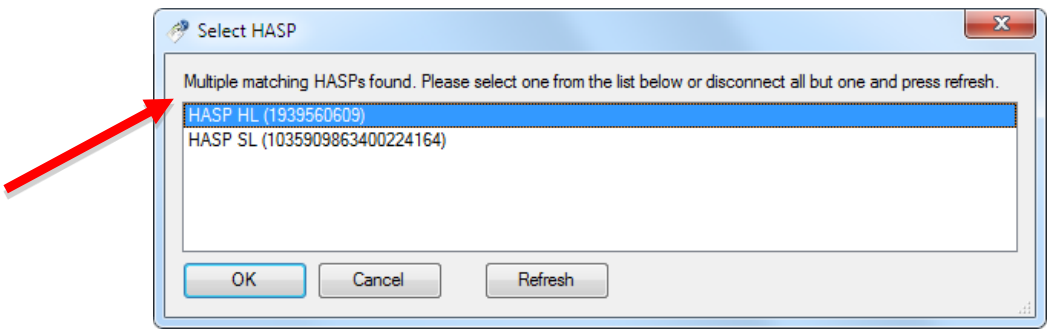


4. In the dialog you will be asked to *"Save key status as"*. Please save the file with your company name. If you are activating more than one dongle please number the files. The file(s) you create will have a c2v file extension.

   Example:
   `ACME_Forensics_1.c2v`
   `ACME_Forensics_2.c2v`



5. After you clicked *"Save"*, you will see the *"Select HASP"* dialog.
   Please select HASP HL, not HASP SL!



6. Record the dongle ID numbers for each dongle. This will help when applying the update files.

7. Send the created c2v files to support@vound-software.com.
   Please ensure you include the following details in the email when sending the c2v files:
   a. Organization Name
   b. Address
   c. Zip code
   d. Country
   e. Contact Name
   f. Phone Number
   g. Email Address
   h. Vound Product type – **select only one per dongle**:
      i. Intella 10 GB
      ii. Intella 100 GB
      iii. Intella 250 GB
      iv. Intella Professional
      v. Intella Viewer
      vi. Intella TEAM Manager
      vii. Intella TEAM Reviewer

Step 2: activate dongle

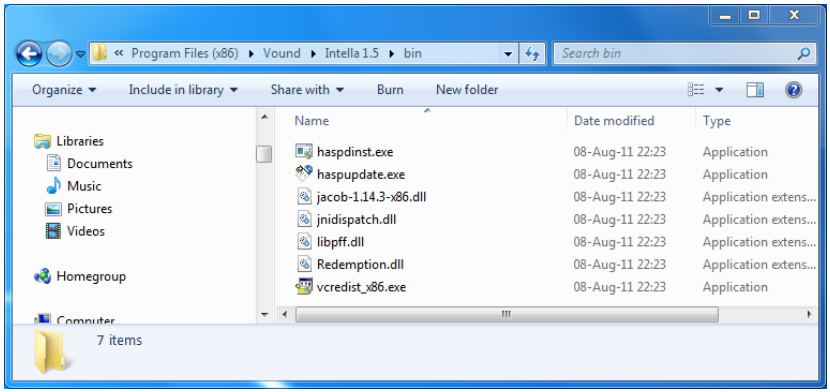
1. Make sure your dongle is connected to the computer that runs Intella.

2. Vound Support will send a dongle activation file. **The activation files are dongle-specific.** The file will end with a .v2c file extension and the name of the file contains the dongle ID.

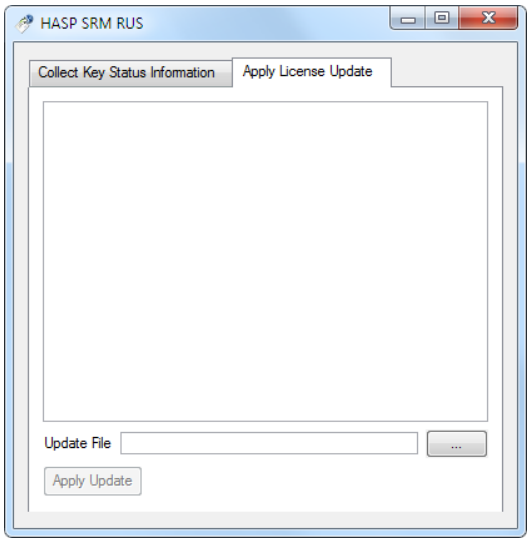
   Example: HaspUpdate_68_**304466763**.v2c
   (the dongle ID in this case is 304466763)

   Save the .v2c file on your computer. Be sure to remember where it is stored!

3. Start "haspupdate.exe" as before. You will find haspupdate.exe in the bin folder in the installation folder of Intella. The default installation folder is:
   `C:\Program Files\Vound\[Intella product folder]`

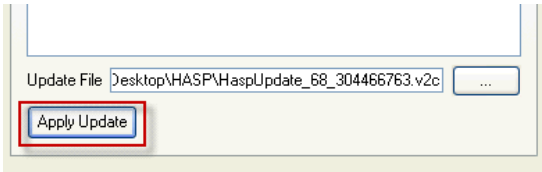


4. Click the *"Apply License Update"* tab. Then click the Browse button labeled "…" next to the *"Update File"* field. This opens a file selector dialog.



5. Select the .v2c file in the file selector and click Open.

6. Click "Apply update" button. This will activate the dongle.



Your Intella dongle is now activated!

In case of questions or problems, please contact Vound Support at http://www.vound-software.com/intella/support.

6 Intella editions and their workflow

6.1 Feature Overview

	10 GB	100 GB	250 GB	Professional	Viewer	TEAM Manager	TEAM Reviewer
Preparation							
Case size limit	10	100 GB	250 GB	none	none	none	none
Create new cases	●	●	●	●		●	
Index evidence files	●	●	●	●		●	
Investigation							
Search, filter &	●	●	●	●	●	●	●
Preview items	●	●	●	●	●	●	●
Flag & tag items	●	●	●	●	●	●	●
Export items	●	●	●	●	●	●	●
Cooperation							
Export Cases	●	●	●	●		●	●
Import Cases	●	●	●	●	●	●	●
Export Work						●	●
Import Work						●	

6.2 Intella 10 GB/100 GB/250 GB/Professional

6.2.1 Description

Intella 10, 100 or 250 GB and Intella Professional are the powerful, standalone editions. They allow you to create cases, index evidence files, search, filter, flag, tag, comment on, and export items.

The number in the product edition name indicates the amount of gigabytes of evidence files that each case can hold. Intella Professional has no such limit.

Each of these editions can also be used to prepare cases that are reviewed using Intella Viewer.

6.2.2 Workflow

For standalone use:

1. The *investigator* creates a *case* in the case manager of Intella and indexes evidence files.
2. The investigator flags and tags items, and gives comments to items of interest.
3. The investigator exports the results for further processing of the case.

In combination with Intella Viewer:

1. The *administrator* creates a *case* in the case manager of Intella and indexes evidence files.
2. The administrator exports the case to an *Intella case file* (.icf file) using the case manager and informs the *investigator* where he can find the case file.
3. The investigator imports the case file in Intella Viewer. The investigator flags and tags items, and gives comments to items of interest using Intella Viewer.

4. The investigator exports the results using Intella Viewer for further processing.

6.3 Intella Viewer

6.3.1 Description

Intella Viewer allows the investigator to work on a case that is created by Intella 10/100/250 GB, Intella Professional or Intella TEAM Manager.

6.3.2 Workflow

In combination with Intella 10/100/250 GB, Intella Professional or Intella TEAM Manager:

1. The *investigator* imports an *Intella case file* (.icf file) that is created with any Intella product capable of creating case files.
2. The investigator flags and tags items, and gives comments to items of interest.
3. The investigator exports the results for further processing of the case using Intella Viewer (Export > Result List...).

6.4 Intella TEAM Manager and Intella TEAM Reviewer

6.4.1 Description

The Intella TEAM products make it possible to work with multiple investigators on the same case. In order to do so you need Intella TEAM Manager for the case administrator and Intella TEAM Reviewer for the investigators in your team.

The case administrator creates the case in Intella TEAM Manager and indexes the sources with evidence files. The investigator opens the case created by the administrator with Intella TEAM Reviewer and starts to work on the case.

When the team members have finished their investigation, the results of every team member are collected and imported in Intella TEAM Manager. Intella TEAM Manager keeps track of the tags, flags and comments of every team member.

Note: The Intella 10/100/250 GB, Professional and Viewer products cannot export or import Work Reports.

6.4.2 Workflow

1. The *case administrator* creates a case in Intella TEAM Manager using the case manager and indexes the evidence files.
2. The case administrator exports the case to an *Intella case file* (.icf file) and informs the *investigators* where they can find the case file.
3. The investigators use Intella TEAM Reviewer to import the Intella case file.
4. Investigators flag, tag items and comment on items of interest. They export an *Intella work report* (.iwr file) that holds these annotations.
5. The case administrator opens the case in Intella TEAM Manager and imports all the Intella work reports created by the investigators. The administrator exports the combined results for further processing of the case.

Note: Just like Intella 10/100/250 GB and Intella Professional, Intella TEAM Manager can also be used in a standalone mode.

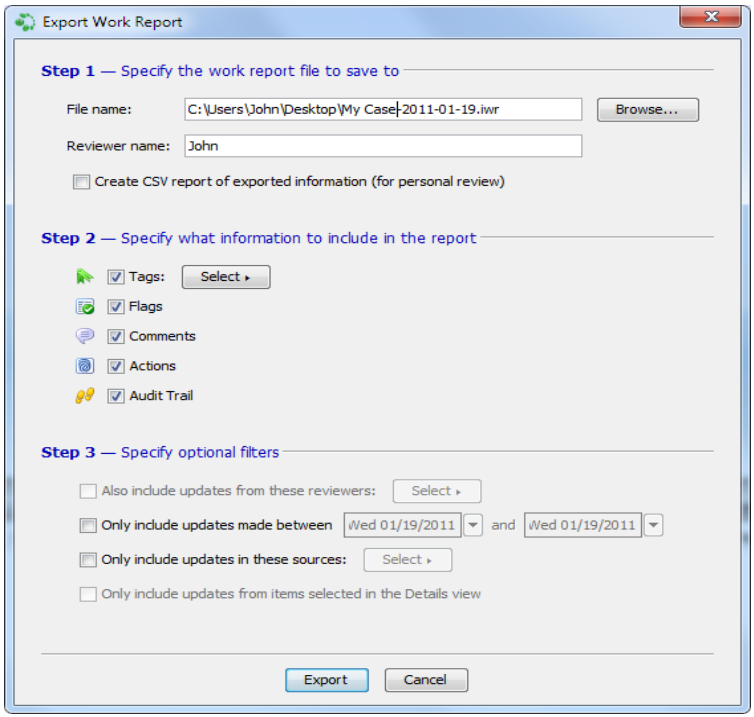
6.4.3 Exporting work reports

Exporting an Intella work report means that an *.iwr file is created (Team> Export Work Report…). This file contains all tags, flags and comments given to items by an investigator. We refer to these types of information as "item updates" as they extend the stored item metadata.

Furthermore it contains the user actions on items that can be found in the Features facet (Previewed, Opened and Exported).

Finally, the audit trail is added, allowing for more precise investigator audits.

In the Export Work Report dialog you can set the file name of the work report that is to be created. If you select the option Create CSV report, a CSV file will be created that contains a list of all the items that are flagged, tagged or commented. This CSV file lets the investigator double-check the tags, flags and comments that have been exported into the work report. It is not necessary to give this CSV to the case administrator, only the .iwr file will suffice.



In the second section you can choose what type of updates will be reported: tags, flags, comments, action statistics and an audit log. You can further specify what tags should be in the report by clicking the Select button.

In the third section you can (optionally) further restrict the item updates included in the work report.

- By selecting *Also include updates from these reviewers* and by selecting one or more names after clicking the Select button, the work report will also contain annotations made by the selected investigators. This option is disabled when your case does not contain updates made by other reviewers.
- *Only include updates made between … and …* allows you to restrict the work report to updates that were made in a specified date interval.

- *Only include updates in these sources* allows you to limit the report to selected sources only.
- *Only include updates from items selected in the Details view* allows you to filter the report to the items that are currently selected in the Details panel.

Creation of the work report may take some time, depending on the case size and the amount of updates. Afterwards a dialog is shown that lists the created files and statistics on how many tags/flags/etc. are stored in the work report.

6.4.4 Importing work reports

Importing work reports means that work report files (*.iwr files) created by investigators are added to the original case managed by the case administrator. Flags, tags and comments, audit logs and statistics generated by an investigator are imported into the case. In this way, the results of a team of investigators can be combined.

Use Team > Import Work Report… menu entry will show the Open dialog. Select a work report and click Open.

Important: You can only import work reports that belong to the same case.

The Work Report History dialog shows a list of imported work reports. Use to Team > Work Report History… to open this dialog.

When you want to delete the results imported from a work report, select the work report in the list and click “Remove Work Report contents”. Since this operation can’t be undone you will be asked to confirm.

6.5 Glossary of terms

Preparation: The first steps in any investigation with Intella. It refers to managing cases and indexing evidence files.

Investigation: The steps taken to investigate the information that is part of the case. This includes preparing, searching, filtering, viewing, previewing, tagging, flagging, comment and exporting items.

Cooperation: The Intella TEAM products allow investigators to cooperate on the same case. By exporting Intella work reports from Intella TEAM Reviewer and importing them to Intella TEAM Manager, the team results are combined into one case.

Intella case folder: The folder where the case data (indexes, flags, tags, comments) is stored. Note: this is normally not the place where the evidence files are located.

Intella case file: A file that contains all the data that belongs to a case except for the original evidence files. The file has the extension *.icf.

Intella work folder: The folder where the work reports will be stored.

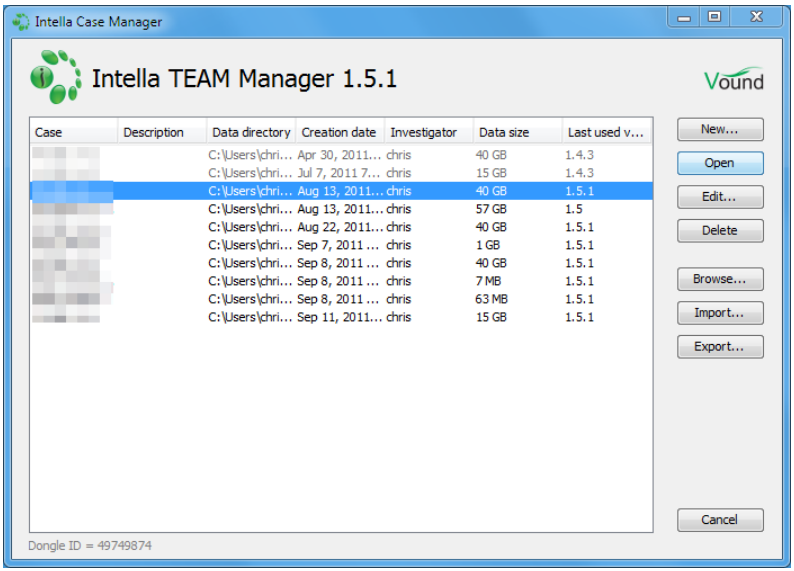
Intella work report: A file that contains the tags, flags and comments made by an investigator, together with his audit trail. The Intella work report is sent to the case administrator. The file has the extension *.iwr.

Case administrator: The case administrator is the person that prepares a case in Intella TEAM Manager, sends the case file to the investigators in the team and imports the Intella work reports in Intella TEAM Manager.

7 Managing Cases

A case is a collection of sources that can be searched by Intella. Use cases to organize your work.

7.1 The Case Manager

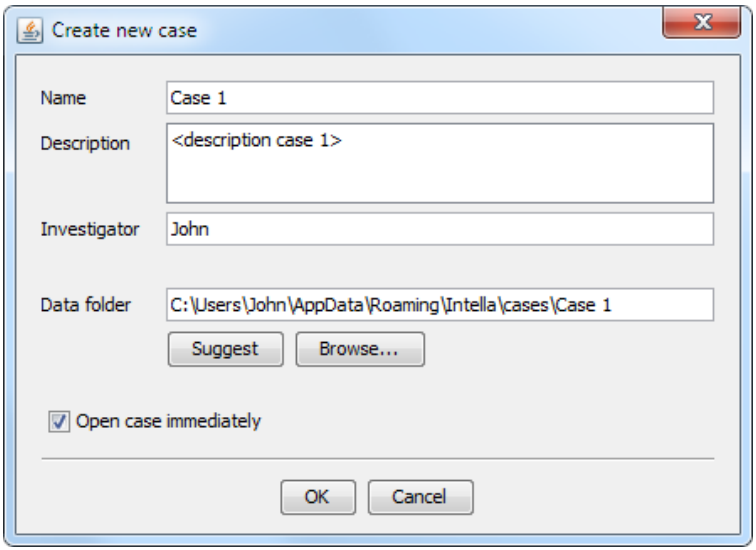


When you start Intella, the Intella Case Manager will first show up. Here you can select existing cases, define new cases, and remove old ones.

Below the cases list you can see the ID of your dongle. This can be relevant in conversations with Vound's support department. When you are using a trial license, this line will reflect that.

When you have your dongle inserted but still see a line indicating that you are using a trial license message, this could indicate technical problems with accessing the dongle, but also that your dongle needs to be updated to run with this Intella version.

7.1.1 Creating a new case



To create a new case, select "New..." in the Case Manager window. When the Create New Case dialog is displayed, give the case a name, enter an optional description, enter an investigator name, and select a location (Data folder) where you want to store data that belongs to this case.

Note: The default location, visible when you click the Suggest button,

```
C:\Documents and Setting\<username>\Application
Data\Intella\cases\
```

or

```
C:\Users\\<username>\AppData\Roaming\Intella\cases
```

Tip: If the evidence has been moved after indexing, a dialog box will appear when opening the case that allows you to browse to the new location of the evidence

files. In previous versions Intella would fail to export the files or open them in the associated application when the evidence was moved and it was strongly recommended to reserve a drive letter for the use of Intella.

7.1.2 Opening an existing case

In the Case Manager, select a recent case from the list and click "Open." You can also use the "Browse..." button and browse to the folder containing the case you want to open.

7.1.3 Editing a case

In the Case Manager, use "Edit..." to open the "Edit case" dialog to change the name, description, and the investigator's name. You cannot change the Data folder.

7.1.4 Deleting an existing case

In the Case Manager, use "Delete" to delete the case that is selected in the list. You will be asked to confirm the deletion.

Important: Deleting a case will delete all files in a case folder – including any files that have been placed there manually by the user!

7.1.5 Browsing cases

In the Case Manager, use "Browse..." to open the "Choose Case File" dialog. Browse to the folder containing the case that you want to open. Select the "case.xml" file in a case folder and click "Open".

7.1.6 Importing a case

In the Case Manager, use "Import" to open the "Choose Case File" dialog. Browse to the folder that contains the Intella Case File (.icf) you want to import.

7.1.7 Exporting a case

In the Case Manager, use “Export” to export the selected case. Choose a name and folder in the “Choose file to export the case” dialog and click Save.

Once the case file has been created, a dialog is shown that lists the location of the file, as well as the locations of all evidence files and folders used in the case. The case file is to be handed out to reviewers together with these evidence files.

7.2 Evidence paths

The sources menu has the entry “Edit Evidence Path…” It opens the “Attach Evidence” dialog.

In this dialog you can check if the path to a folder with evidence files or the path to a mail file with evidence emails is still valid. If it does not find the folder or the mail file, the dialog allows the user to edit the path and make it point to the correct location.

It is important to have the correct path to your evidence folder or mail file if you want to export items. Without valid evidence paths you won't be able to export items, preview them in their original layout or open them in their native application.

Note: For Folder sources only the root folder's existence is checked. For mail sources the path to the mail container file is checked.

7.2.1 Checking the evidence paths

1. Open the “Attach Evidence” dialog with the Source > Edit Evidence Paths…” option.
2. a) If the dialog shows *“All evidence paths have been found”,* there is no problem.
   b) If the dialog shows *“Some evidence paths have not been found. Please enter their new locations.”*, change the path to the evidence as explained in the next paragraph. The folder icons in the

expanded folder tree contain the icon “Files missing within” (yellow sphere) and the icon “File missing” (red cross).

7.2.2 Changing the evidence paths

1. Open the “Attach Evidence” dialog with the Source > Edit Evidence Paths…” menu option.
2. Select the file or folder node in the tree that you want to relocate.
3. Enter the correct path in the Path field (lower end) and click Apply, or click the Browse button to open the path selector dialog, select a path and click OK. You will see the tree refresh immediately. Also you will see which paths still cannot be located.
4. Click Save to save the new path.
5. Once done, click Close to close the dialog.

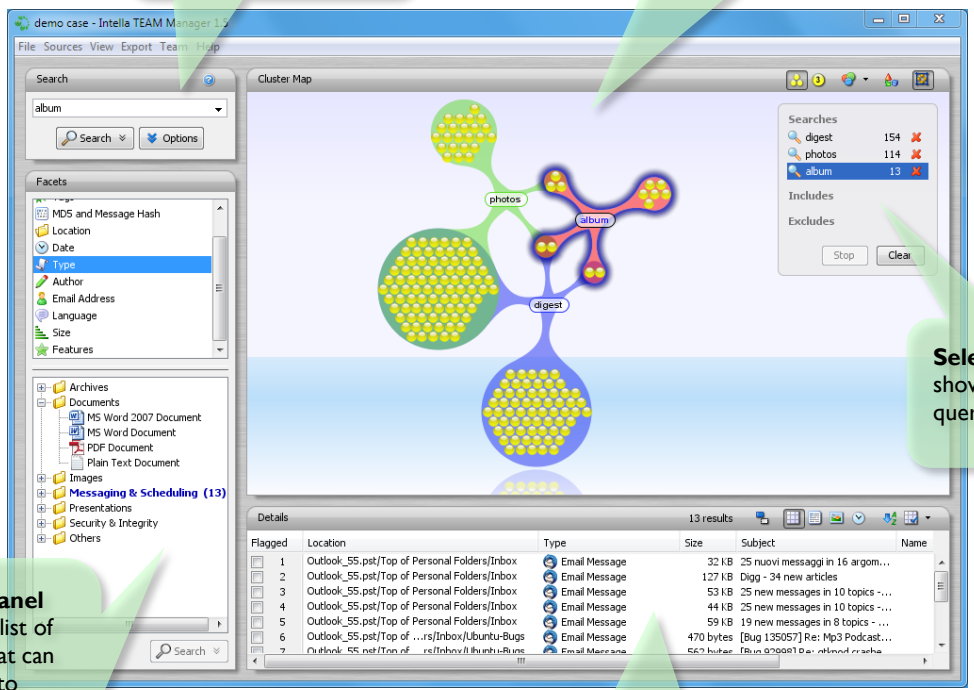
Sometimes a path is in principle correct but it can still not be found because a network folder has not been mounted yet or an external drive has not been connected. After fixing the missing network or local connection, click the Refresh button to retry locating the evidence paths.

8 Overview of the Intella interface

8.1 Main window

Search panel is the place to enter a word or phrase to search for.

Cluster Map panel shows how search results are connected to parts of the query.



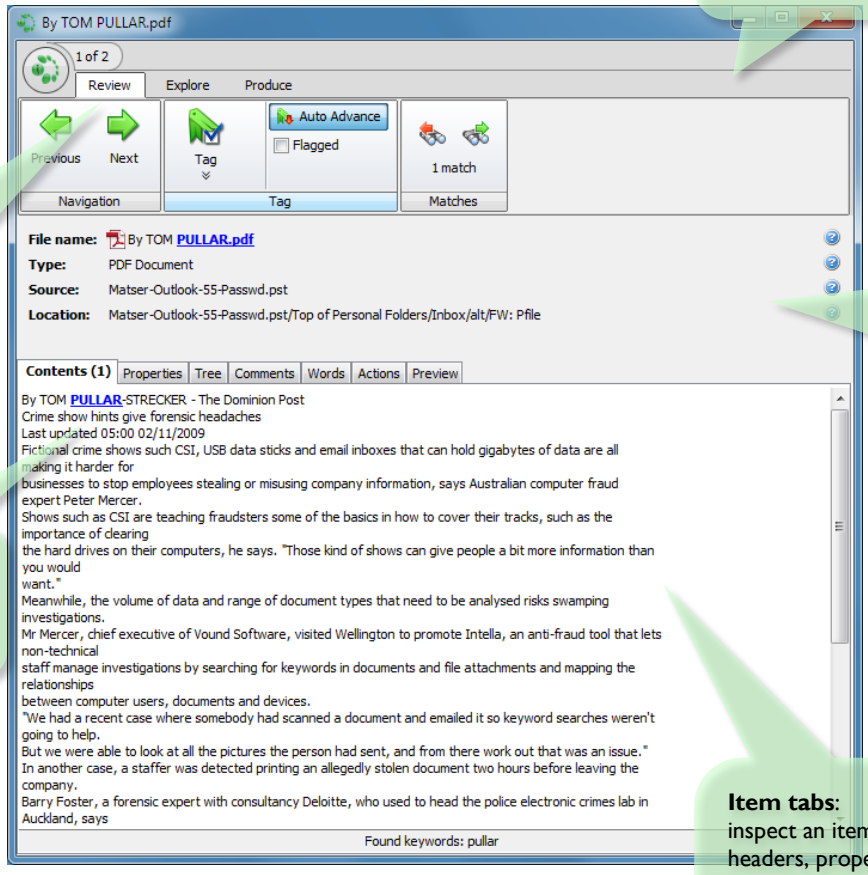
Selections panel shows user's queries.

Facet panel shows a list of facets that can be used to search and filter results. The values or the selected facet are shown below the list.

Details panel shows a table, list, thumbnail or timeline view of the results in a selected cluster.

8.2 Previewer

Previewer window: opens when item in table is double clicked.



Previewer actions: click Review, Explore or Produce to see Previewer actions.

Item summary: shows summary of important information related to the item.

Search term hit: Location of search terms in the text.

Item tabs: inspect an item's contents, headers, properties, attachments, thumbnails, tree structure, extracted terms, comments and performed user actions.

9 Sources

Sources are one of the key concepts of Intella. They represent the locations where items such as emails, documents and images can be found. Sources are explicitly defined by the user, providing full control over what information is searched.

9.1 Source types

Intella distinguishes between various types of sources:

- **Folder sources**: Directory (folder) on a local hard drive or on a shared/network drive containing one or more source files.

- **MS Outlook file (PST, OST)**: Storage files used by Microsoft Outlook for storing email and other Outlook data.

  Supported versions
  Intella supports PST and OST files created by the following versions of Microsoft Outlook: 97, 98, 2000, 2002, 2003, 2007, 2010.

- **MS Outlook Express file (DBX, MBX)**: Email folder files for Microsoft Outlook Express.

  Supported versions
  Intella supports DBX files created by the following versions of Microsoft Outlook Express: 4.0, 5.0, 6.0.

> Tip: If you want to index Windows Mail files, please create a Folder source and index the folder where Windows Mail stores the messages.

- **Lotus Notes NSF file**: Email database file for Lotus Notes. In order to index NSF files, Lotus Notes 8.5 needs to be installed.

  Supported versions:
  Intella supports NSF files created by older versions of Lotus Notes. Intella supports all NSF files that can be processed by Lotus Notes 8.5.

  Tip: The Lotus Notes tool "nudall.exe" can be used to convert older NSF files to NSF files that can be processed by Lotus Notes 8.5.

- **Mbox file**: Storage file for Mozilla Thunderbird, Foxmail and other email applications. Intella has been tested on Thunderbird Mbox files.

- **IMAP account**: One or more email account(s) on an IMAP email server.

  Important: The IMAP standard is implemented in many different ways. We tested Intella on several IMAP servers with good response. However, we cannot guarantee that Intella is able to create IMAP account sources for every IMAP server.

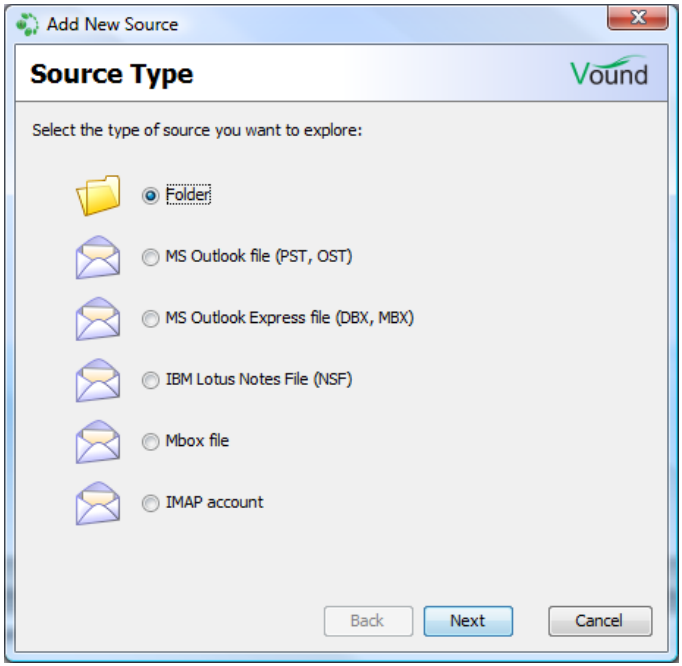
9.2 Adding sources

Adding sources to Intella is done with the "Add New Source" wizard. There are three ways to start this wizard:

- Select "Add New..." from the Sources menu. (Sources >Add New...)

- Select "Add New..." in the Sources panel in the lower left of the main interface.

- Click CTRL+N on your keyboard while using Intella.



9.2.1 Adding a Folder source

Follow these steps to add a Folder source to Intella:

1. **Source Type**
   Start the Add New Source wizard from the Sources menu. (Sources > Add New...)
   Select a Folder, click Next, and a folder tree will be displayed.

2. **Specify Folder**
   Select the folder from the tree containing the source files you want to index, or enter the folder name in the text field above the tree. All files in the selected folder will be indexed. When the "Include subfolders" checkbox is selected, files in all subfolders (and sub-subfolders, etc.) will also be indexed. When

the “Include hidden folders and files” checkbox is selected, hidden files and folders will be indexed as well.

> Note: Folder trees containing many items may take some time to be displayed. Please be patient.

Click Next to continue.

The last steps in the definition of a source type are almost the same for all types. They are described in the section “Last steps in a source type definition”. Folder source definition, however, has an additional step: Create Mail Sources.

- **Create Mail Sources**
  Intella can automatically create new sources for the mail files that it encounters. This will enable you to search for emails and attachments in these mail files. The supported formats are: Microsoft Outlook (PST, OST), Microsoft Outlook Express (DBX), Lotus Notes (NSF) and Mbox.
  Click Next to continue.

9.2.2 Adding a MS Outlook file (PST, OST) source

Follow these steps to add an MS Outlook file (PST, OST) source to Intella:

1. **Source Type**
   Start the Add New Source wizard from the Sources menu. (Sources > Add New...)
   Select "MS Outlook file (PST, OST)" and click Next.

2. **Specify File**
   Add the filename and location of the PST or OST file you wish to investigate:
   Click Open to browse for PST or OST files.
   Select the file you wish to investigate and click Open.
   Click Next to continue.

Tip: When you want to index email from an active Outlook installation, you can find the PST file in the following directory (folder):

- Windows Vista and Windows 7:

```
C:\Users\<username>\AppData\Local\Microsoft\Outlook
```

- Windows 2000, 2003 and XP:

```
C:\Documents and Settings\<username>\Local
Settings\Application Data\Microsoft\Outlook
```

The last steps in the definition of a source type are almost the same for all types. They are described in the section “Last steps in a source type definition”. The MS Outlook file (PST, OST) source definition, however, has an additional step: Deleted items.

- **Deleted items**
  Intella can recover deleted items from the Outlook data file. Recovered items will be located in a special folder named “<RECOVERED>”

  Select *Recover deleted items* if you want to recover them. Click Next to continue.

9.2.3 Adding an MS Outlook Express file (DBX, MBX) source

Follow these steps to add an MS Outlook Express file (DBX, MBX) source to Intella:

1. **Source Type**
   Start the Add New Source wizard from the Sources menu. (Sources > Add New...)
   Select "MS Outlook Express file (DBX, MBX)" and click Next.

2. **Specify File**
   Add the filename and location of the DBX or MBX file you wish to investigate.

Click Open to browse folders for DBX or MBX files.
Select the file you wish to investigate and click Open.
Click Next to continue.

Tip: If you want to index email from an active Outlook Express installation, you can find the DBX file in the following folder...

- Windows 2000, 2003 and XP:

```
C:\Documents & Settings\<username>\Local
Settings\Application Data\Identities\{<arbitrary
string>}\Microsoft\Outlook Express
```

The last steps in the definition of a source type are the same for all types. They are described in section "Last steps in a source type definition".

9.2.4 Adding a Lotus Notes NSF file source

Follow these steps to add a Lotus Notes NSF file source to Intella:

1. **Source Type**
   Start the Add New Source wizard from the Sources menu. (Sources > Add New...)
   Select "Lotus Notes NSF file" and click Next.

2. **Specify File**
   Add filename and location of the file you wish to investigate.
   Click Open to browse for NSF files.
   Select the file you wish to investigate and click Open.
   Click Next to continue.

Tip: If you want to index email from an active Lotus Notes installation, you will find the NSF files in the following directory (folder):

- Version 7.x: `C:\Program Files\Lotus\Notes\Data`
- Version 8.x: `C:\Program Files\IBM\Lotus\Notes\Data`

The last steps in the definition of a source type are the same for all types. They are described in section “Last steps in a source type definition”.

9.2.5 Adding an Mbox file source

Follow these steps to add an Mbox file source to Intella:

1. **Source Type**
   Start the Add New Source wizard from the Sources menu. (Sources > Add New...)
   Select “Mbox file” and click Next.

2. **Specify File**
   Add filename and location of the Mbox file you wish to investigate.
   Click Open to browse folders for Mbox files.
   Select the file you wish to investigate and click Open
   Click Next to continue.

The last steps in the definition of a source type are the same for all types. They are described in section “Last steps in a source type definition”.

9.2.6 Adding an IMAP account source

Follow these steps to add an IMAP Account source to Intella:

1. **Source Type**
   Start the Add New Source wizard from the Sources menu. (Sources > Add New...)
   Select "IMAP account" and click Next.

2. **Specify Account**
   Enter the settings for the target email account, e.g., “mail.my-isp.com” with the username and password. Select the “use secure connection (SSL)” checkbox if you want or need a secure connection to the mail server. This is recommended, because without a secure connection your password will be sent as plain

text.
Click Next to continue.

3. **Select Folders**
In the next step, Intella will contact the specified email server to retrieve the mail folder tree. If you selected a secure connection and the server uses a certificate that cannot be validated automatically, a dialog will appear that asks you whether the certificate should be accepted. Once connected, after you accept the certificate if applicable, Intella will display the folder tree of the target mail account. You can then select the folders that you want to make searchable by placing a check in the box next to the desired folders.
Click Next to continue.

Note: If you want to index subfolders, you will need to select them; otherwise they will be ignored. The wizard has two convenient buttons for selecting and deselecting all folders.

The last steps in the definition of a source type are the same for all types. They are described in section "Last steps in a source type definition".

9.2.7 Last steps in a source type definition

The following final steps are the same for all source type definitions.

1. **Size Limit**
Specify the maximum allowable size for the files to be included. Any files larger than this size will be ignored. By default this limit is set to "Unlimited," meaning that all files will be included.
Use this threshold, for example, when you have exceptionally large PDF files (in the order of tens of megabytes) that may take too long to index.
Click Next to continue.

2. **Source Name**

Next, you are asked to enter a name for the source. The name will be shown in the list of sources in the Sources panel and functions as a label for your reference.
Click Next to continue.

3. **Hashes & Duplicates**

Next, you will be asked if Intella should calculate MD5 and message hashes for every item indexed, if the number of duplicates should be calculated and if near-duplicate hashes should be calculated.

- *MD5 and message hashes* will enable Intella to filter duplicates from the search results.
- The *Calculate number of duplicates* option lets you see the number of duplicates for each indexed item. It requires MD5 and message hashes to be calculated.
- The *Calculate near-duplicate hashes* option lets you retrieve results that are very similar to a selected result.

Click Next to continue.

Note: Calculating hashes and duplicates will slightly increase the duration of the indexing process. These settings cannot be changed once the source has been defined.

4. **Options**

Intella can optionally index the files inside archives and extract the images inside documents. You can disable this to improve indexing performance at the cost of fewer results.

- Select *Index archives* if you want Intella to index files inside archives such as ZIP and RAR files.
- Select *Index content embedded in documents* if you want to extract images and other binary items embedded in Microsoft Office, OpenOffice and PDF documents. This will make these items separately searchable and viewable.

- Select *Cache images* if you want to see images in the Thumbnail viewer.
  Click Next to continue.

5. **Completed Source Definition**
   Finally, you will be presented with a dialog to inform you that you have successfully defined a new source. You may optionally start indexing the source. Indexing is required to be able to search and explore the files in this source.

   Once you click the Next button, the indexing process will proceed according to the options you have selected.

Tip: Because the active indexing process prevents you from interacting with the rest of the program until finished, you may wish to skip this part now (e.g., to define more new sources) and index the sources later by clicking the Re-index menu item in the Sources menu.

Note: At any time except before the step "Completed Source Definition," you can click the Cancel button to return to the Intella interface without adding a new source.

9.3 Indexing and re-indexing

9.3.1 Indexing

After defining a source, Intella will index it: it will inspect all items (emails, files etc.) that it can find in the source file(s), enabling Intella to return instantaneous results during your investigation for relevant evidence.

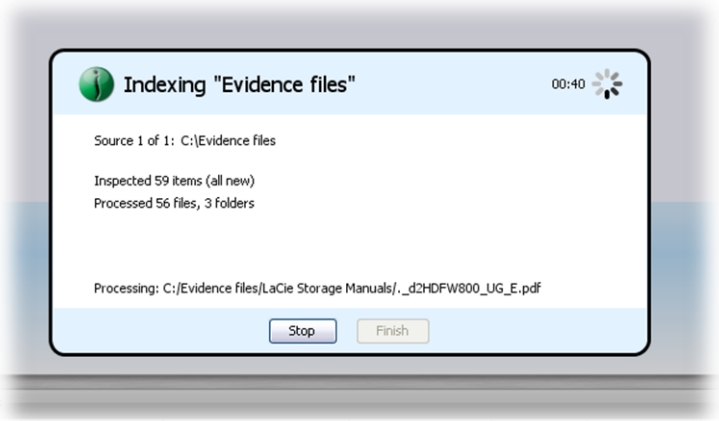
The creation of the first index will take quite some time as the contents of each file is inspected for keywords and other important metadata. Subsequent indexing will typically be much faster, as it only needs to inspect new or changed files.

Note: During indexing, you will see a dialog displaying which file is currently being processed, as well as some statistics. You will not be able to interact with the rest of the program while this dialog is shown. Minimizing the main window is possible, however.

The statistics in this dialog reveal the number of new, changed, removed and unchanged items that Intella has found in the source(s) that are being indexed.

Please be aware that the numbers shown in the dialog count both files and folders. For example: one folder with two files in it will be counted as three items. As such, the number of scanned items may seem higher than the number of items that can be found in the source afterwards.

You can abort the index process at any time by clicking the Stop button. Intella will finish processing the current item and then let you close the dialog. Note though that there is no way to resume the indexing process, it needs to be redone from scratch in a later session using the Re-index option.



9.3.2 Re-indexing

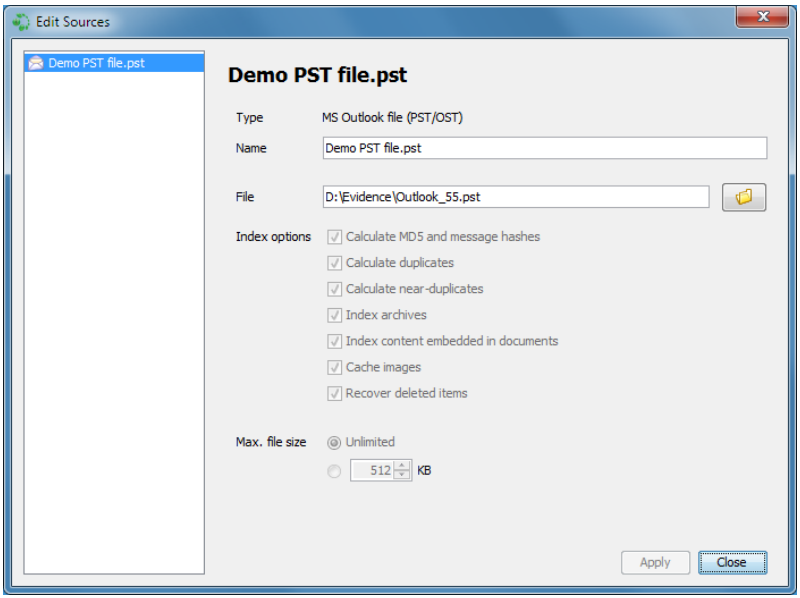
If you believe that the search results have become corrupt, for any reason, or you had to interrupt an earlier indexing attempt, you can always do re-index all sources. The Re-index option is available in the Sources menu.

Intella will remove all indexes it has previously created and create a new index as it did when the sources were first added.

The Re-index option can also be used when you opted not to index the sources immediately after defining them. This lets you define multiple sources and index them in one go.

9.4 Editing sources

To see the configuration of all source, go to Sources > Edit Sources or type CTRL+E. A dialog will open that displays the list of sources on the left.



When you click on a source, its details will be shown in the area to the right of the list. The name and type are shown as well as source type-specific details such as folders to index, file size restrictions, etc. See the section on adding sources above for the precise meaning of these settings per source type.

Only the name and the file path will be editable, the other options are fixed after source definition.

When you change the source's configuration, the Apply button is enabled. Changes will only be applied when you click Apply. If you select a different source or click the Close button without first clicking Apply, a dialog will appear to prompt you to apply the changes, discard the changes, or cancel the operation.

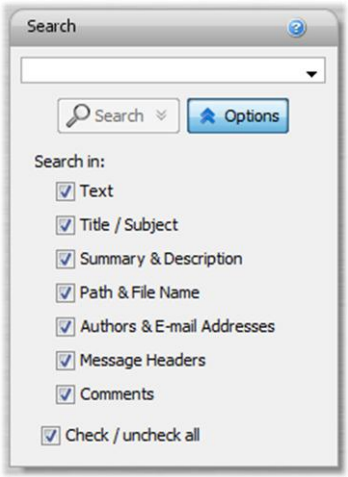
10 Searching

To search for text, enter a query in the Search panel, and click the Search button.

For query syntax rules, refer to the “Search query syntax” section below.

10.1 Search options

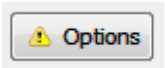
With search options you can limit keyword searching to specific item parts or attributes:



- Text
- Title / Subject
- Summary & Description (includes e mail headers)
- Path & File name
- Authors & E-mail Addresses
- Message Headers
- Comments

To see the search options, click the Options button under the search text field. The options box will be displayed below the button.

Select the options for properties that you want to include in your search, and deselect those you want to exclude. Your selected search options will be stored and used for future searches until you change them.



Note: As a reminder, the Options button will show a yellow triangle when not all options are selected.

To hide the options box, click the Options button again. If you have made any changes, the icon on the Options button will change to a yellow warning

sign as a reminder that you have changed options that will affect your searches.

10.2 Using Includes and Excludes

10.2.1 Including search terms

Including a search term means that only those search results that contain the included search term will be shown.

Example: The user enters the search term “Paris” and includes this term with the dropdown menu on the Search button. The selections panel in the Cluster Map shows that “Paris” is an included search term. As long as this search term is present, only clusters with items that contain the term “Paris” will be shown.

10.2.2 Excluding search terms

Excluding a search term means that only those search results that do not contain the excluded search term are shown.

Example: The user enters the search term “Paris” and excludes this term with the dropdown menu on the Search button. The selections panel in the Cluster Map shows that “Paris” is an excluded search term. This means that from now on only clusters with items that do not contain the term “Paris” will be shown.

10.3 Search query syntax

In the text field of the Search panel you can use special query syntax to perform complex multi-term queries and use other advanced capabilities.

Tip: You can see the list shown below by clicking the question mark button in the Search panel.

10.3.1 Use of multiple terms (AND/OR operators)

By default, a query containing multiple terms matches with items that contain all terms anywhere in the item. For example, searching for:

```
John Johnson
```

returns all items that contain both “John” and “Johnson.” There is no need to add an AND (or “&&”) as searches are performed as such already, however doing so will not negatively affect your search.

If you want to find items containing at least one term but not necessarily both, use one of the following queries:

```
John OR Johnson
```

```
John || Johnson
```

10.3.2 Minus sign (NOT operator)

The NOT operator excludes items that contain the term after NOT:

```
John NOT Johnson
```

```
John -Johnson
```

Both queries return items that contain the word “John” and not the word “Johnson.”

```
John -"John goes home"
```

This returns all items with “John” in it, excluding items that contain the phrase “John goes home.”

The NOT operator cannot be used with a single term. For example, the following queries will return no results:

```
NOT John
```

```
NOT "John Johnson"
```

10.3.3 Phrase search

To search for a certain phrase (a list of words appearing right after each other and in that particular order), enter the phrase within full quotes in the search field:

```
"John goes home"
```

would match with the text "John goes home after work" but would not match the text "John goes back home after work."

10.3.4 Grouping

You can use parentheses to control how your Boolean queries are evaluated:

```
(desktop OR server) AND application
```

retrieves all items that contain "desktop" and/or "server," as well as the term "application."

10.3.5 Single and multiple character wildcard searches

To perform a single character wildcard search you can use the "?" symbol. To perform a multiple character wildcard search you can use the "*" symbol.

To search for "next" or "nest," use:

```
ne?t
```

To search for "text", "texts" or "texting" use:

```
text*
```

10.3.6 Fuzzy search

Intella supports fuzzy queries, i.e., queries that roughly match the entered terms. For a fuzzy search, you use the tilde ("~") symbol at the end of a single term:

```
roam~
```

returns items containing terms like “foam,” “roams,” “room,” etc.

The required similarity can be controlled with an optional numeric parameter. The value is between 0 and 1, with a value closer to 1 resulting in only terms with a higher similarity matching the specified term. The parameter is specified like this:

```
roam~0.8
```

The default value of this parameter is 0.5.

10.3.7 Proximity search

Intella supports finding items based on words that are within a specified maximum distance from each other in the items text. This can be seen as a generalization of a phrase search.

To do a proximity search you place a tilde (“~”) symbol at the end of a phrase, followed by the maximum word distance:

```
“desktop application”~10
```

returns items with these two words in it at a maximum of 10 words distance.

10.3.8 Field-specific search

Intella's Keyword Search searches in item texts, titles, paths, etc. By default, all these types of text are searched. You can override this globally by deselecting some of the fields in the Options, or for an individual search by entering the field name in your search.

```
title:intella
```

returns all items that contain the word “intella” in their title.

The following field names are available:

- **text** - searches in the item text
- **title** - searches in titles and subjects
- **path** - searches in file and folder names
- **summary** - searches in descriptions, metadata keywords, etc.

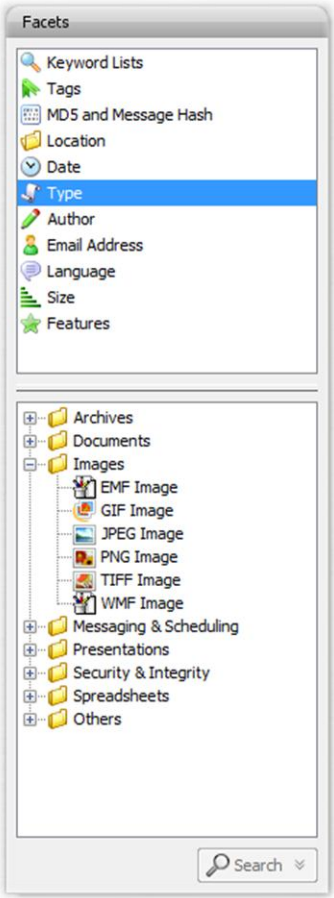
- **agent** – searches in authors, contributors and email senders and receivers
- **headers** - searches in the raw email headers
- **comment** - searches in all comments made by reviewer(s)

You can mix the use of various fields in a single query:

```
intella agent:john
```

searches for all items containing the word “intella” (in one of the fields selected in the Options) that have “john” in their author metadata or email senders and receivers.

11 Using facets



Besides keyword searching, the indexed items can be browsed by facets, which represent specific item properties.

Every facet organizes the items into groups (possibly hierarchical) depending on a specific item property.

Selecting a facet in the Facet panel will give you a list of all values of the selected facet in the lower part of the panel. In the example on the right, the Type facet has a list of file types as values.

To search for items that match with a facet value, select the facet value and click the Search button or double-click the facet value.

Tip: To export facet information, (1) select a facet, (2) open the context menu - right mouse click - on the facet values, and (3) select Export values….

This will open the Export values dialog. Choose a file name and folder and save the export file. The CSV file will contain the facet values (e.g. file types, email addresses, folder names) and their currently shown counts, which represent their overlap with the current search results.

11.1 Available facets

11.1.1 Keyword Lists

In the Keyword List facet you can load keyword list, to automate the searching with sets of previously determined search terms.

A keyword list is a text file in UTF-8 encoding that contains one search term per line. Note that a search term can also be a combination of search terms, like “Paris AND Lyon”.

Once loaded, all the search terms (or queries) found in the keyword list are shown in the “Queries” panel in the Keyword Lists facet. They are now available for search.

When the 'Combine queries' checkbox is selected, multiple terms selected in the 'Queries' panel will be combined to search for items matching any of the selected terms (Boolean OR operator). The items will be returned as a single set of results (one cluster). If the checkbox is not selected, the selected terms will be searched separately, resulting in as many result sets as there are selected queries in the list.

Tip: Keyword lists can be used to share search terms between investigators.

11.1.2 Tags

Tags are labels defined by the user that describe individual items.

To refine your query with a tag, select a tag from the Tags list, and click the Search button below the list.

11.1.3 MD5 and Message Hash

Intella can calculate MD5 and message hashes to check the uniqueness of files and messages. If two files have the same MD5 hash, Intella considers them to be duplicates. Similarly, two emails with the same message hash are considered to be duplicates. With the MD5 and Message Hash facet you can:

1. Find items with a specific MD5 or message hash and
2. Find items that match with a list of MD5 and message hashes.

Specific MD5 or message hash

You can use Intella to search for files that have a specific MD5 or message hash. To do so, enter the hash (32 hexadecimal digits) in the field and click the Search button.

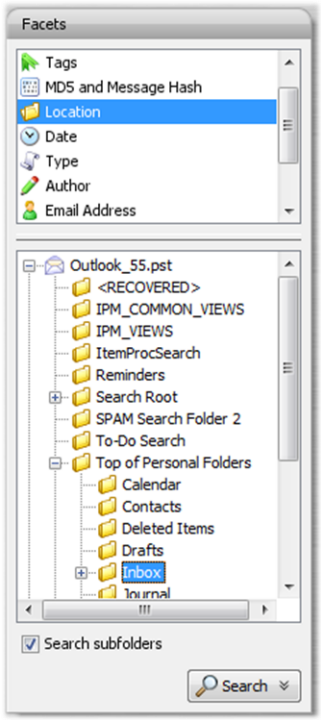
List of MD5 or message hashes

The hash list feature allows you to search the entire case for MD5 and message hash values from an imported list. Create a text file (.txt) with one hash value per line. Use the Add… button in the MD5 Hash facet to add the list. Select the imported text file in the panel and click the Search button below the panel. The items that match with the MD5 or message hashes in the imported list will be returned as a single set of results (one cluster).

Tip: Install a free tool such as MD5 Calculator by BullZip to calculate the MD5 hash of a file. You can then search for this calculated hash in Intella to determine if duplicate files have been indexed.

Tip: Use the "Export table as CSV" option in the Details table to export all MD5 and message hashes of a selected set of results to a CSV file.

11.1.4 Location



This facet represents the folder structure inside your sources. Select a folder and click Search to find all items in that folder.

When "Search subfolders" is selected, the selected folder, all items in that folder, and all items nested in subfolders will be returned, i.e. all items in that entire sub-tree.

When "Search subfolders" is not selected, only the items nested in that folder will be returned. Items nested in subfolders will not be returned, nor will the selected folder itself be returned.

When your case consists of a single indexed folder, then the Location tree will show a single root representing this folder. Selecting this root node and clicking Search with "Search subfolders" switched on will therefore return all items in your case.

When your case consists of multiple mail files that have been added separately, e.g. by using the PST and NSF source types in the New Source wizard, then each of these files will be

represented by a separate top-level node in the Location tree.

11.1.5 Date

This facet organizes the items into date ranges.

You can create a custom date range by

1. Entering a From and To date. Please note that the date entered in the To field is part of the date range.

2. Check which date attribute(s) Intella should use:
   - File Last Modified (file items)
   - Content Created (file items and email items from PST files)
   - Content Last Modified (file items and email items from PST files)
   - Sent (all email items)
   - Received (all email items)

Click the Search button to find items created or modified in the date range that you specified. The result set will be added to the details panel.

Note: Custom date ranges cannot be stored.

11.1.6 Type

This facet represents the file types (Microsoft Word, PDF, JPEG, etc.), organized into categories like Documents, Spreadsheets, etc. To refine your query with a specific file type, select a type from the list and click “Search”.

Note that you can search for both specific document types like PNG Images, but also for the entire Image category.

11.1.7 Author

This facet represents the name(s) of the person(s) involved in the creation of documents. The names are grouped into two categories:

- Creator
- Contributor

To refine your query by a specific creator or contributor name, select the name and click the Search button.

11.1.8 Email Address

This facet represents the names of persons involved in sending and receiving emails. The names are grouped in seven categories:

- From
- Sender
- To
- Cc
- Bcc
- All Senders (From, Sender)
- All Receivers (To, Cc, Bcc)

To refine your query by a specific creator or contributor name, select the name and click the Search button.

Tip: You can export highlighted email addresses in a category to a CSV file by right clicking the category name – From, Sender, To, … – and selecting "Exporting highlighted values…" Email addresses are highlighted when they appear in the results sets. If you selected a results set (cluster) then only the email addresses that appear in the selected set are highlighted.

11.1.9 Language

This facet shows a list of languages that are automatically detected in your items.

To refine your query with a specific language, select the language from the list and click the Search button.

Important: If Intella cannot determine the language of an item, e.g. because the text is too short or mixes multiple languages, then the item will be classified as "Unidentified".

When language detection is not applicable to the item's file type, e.g. images, then the item is classified as "Not Applicable".

11.1.10 Size

This facet groups items based on their byte size.

To refine your query with a specific size range, select a value from the list and click the Search button.

11.1.11 Features

This facet allows you to identify items that fall in certain special purpose categories:

- **Encrypted:** all items that are encrypted. Example: password-protected PDF documents. If you select Encrypted and click the search button, you will be shown all items that are encrypted.

  Note: Intella detects password-protected PDF files, but before flagging them as Encrypted it tries to "decrypt" them with an empty password. This works surprisingly often. If decryption succeeds with this password, the file is not flagged as Encrypted by Intella because its contents are readable and searchable. Also know that PDF file protection is a very elaborate mechanism, i.e. actions like text extraction, copying, viewing can all be protected separately. Therefore it may be the case that text extraction is allowed in the PDF file's security settings, yet Adobe Acrobat still asks the user for a password when e.g. printing the PDF. Only when text extraction is disallowed will Intella flag the file as Encrypted.

  Note: Sometimes files inside an encrypted ZIP file are visible without entering a password, but a password still needs to be entered to extract the file. Such files cannot be exported with Intella. However, in this case both the ZIP file and its encrypted entries will be marked as Encrypted, so searching for all encrypted items and exporting those will capture the parent ZIP file.

- **Unread:** all emails that are marked as "unread" in the source file (PST/OST only). Note that this status is not related to previewing in Intella.
- **Empty document:** all items that have no text while text was expected. Example: a PDF file with only images.
- **Has Duplicates:** all items that have a copy in the same source, i.e. an item with the same MD5 or message hash.
- **Tagged:** all items that are tagged.
- **Flagged:** all items that are flagged.
- **Commented:** all items that have a comment.
- **Previewed:** all items that have been opened in Intella's previewer.
- **Opened:** all items that have been opened in their native application.
- **Exported:** all items that have been exported.

Note: In cases that have Work Reports from multiple users imported into them, the Previewed/Opened/Exported/Commented/Tagged/Flagged nodes shown in the Facet panel will have sub-nodes, one node for each user.

11.2 Including and excluding facet values

11.2.1 Including a facet value

Facet values can be included and excluded. Including a facet value means that only those search results will be shown that match with the included facet value.

Example: The user enters the facet value "PDF Document" and includes this facet value with the dropdown menu on the Search button of the facets panel. The selections panel in the Cluster Map shows that "PDF Document" is an included term. This means that from now only clusters will be shown with items that are PDF Documents.

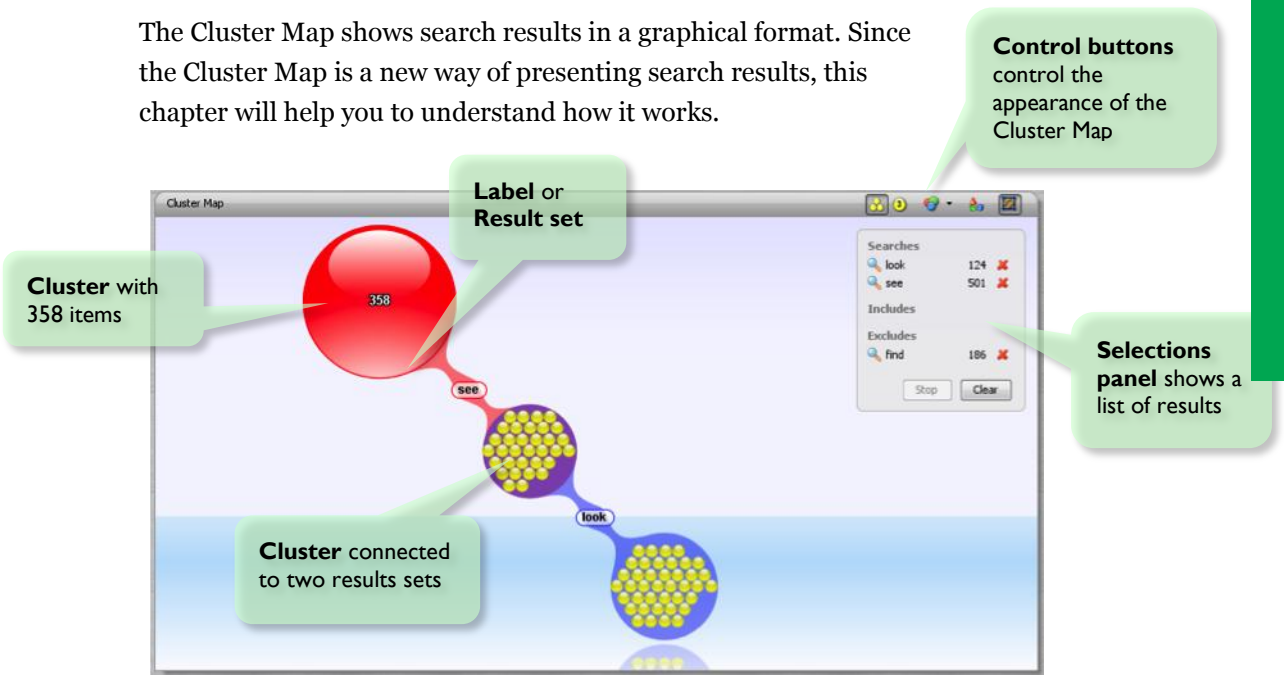
11.2.2 Excluding a facet value

Excluding a facet value means that only those search results will be shown that do not match with the excluded facet value.

Example: The user enters the facet value “PDF Document” and excludes this facet value with the dropdown menu on the Search button of the facets panel. The selections panel in the Cluster Map shows that “PDF Document” is excluded. As long as this exclusion remains, only clusters with items that are not PDF Documents will be shown.

12 Cluster Map panel

The Cluster Map shows search results in a graphical format. Since the Cluster Map is a new way of presenting search results, this chapter will help you to understand how it works.



12.1 Understanding a Cluster Map

The figure above shows labels, clusters and items. The larger spheres are **clusters**. They represent groups of items. Clusters contain smaller spheres that represent individual **items**, such as emails and files. Parts of the query, shown as **labels**, organize the map. Every cluster is connected to one or more labels.

The figure above shows the Cluster Map after the user has evaluated a query with two parts: a keyword search for the term “application” and a search for Documents using the Type facet.

The Cluster Map holds two result sets, with the following labels:

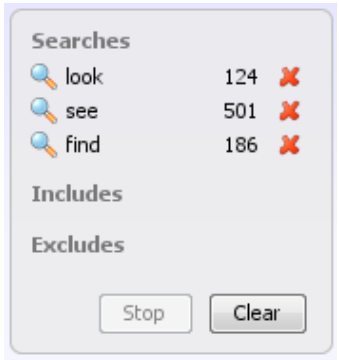
- **"see"**: 501 items, red edges
- **"look"**: 124 items, blue edges

The colored edges rendered in the background connect items to labels, indicating that these items belong to that result set. An item contained in multiple result sets is displayed only once but connected to the labels of the sets that contain it. Example: the items in the middle cluster.

Note: When a cluster contains more than 250 items, it is displayed as a single sphere labeled with the number of items. The individual items are hidden. This prevents clusters with large number of items from disturbing the usability of the Cluster Map.

12.2 Working with Cluster Maps

12.2.1 Removing result sets



The result sets created with the current query are listed in the box at the top right corner of the Cluster Map panel. To remove a result set from the Cluster Map, click on the remove icon (red X) in the list.

To clear the Cluster Map - remove all result sets - and start a new search, click the Clear button in the terms list.

If the Cluster Map regeneration takes too long, you can stop the process by clicking the Stop button.

12.2.2 Opening a search result

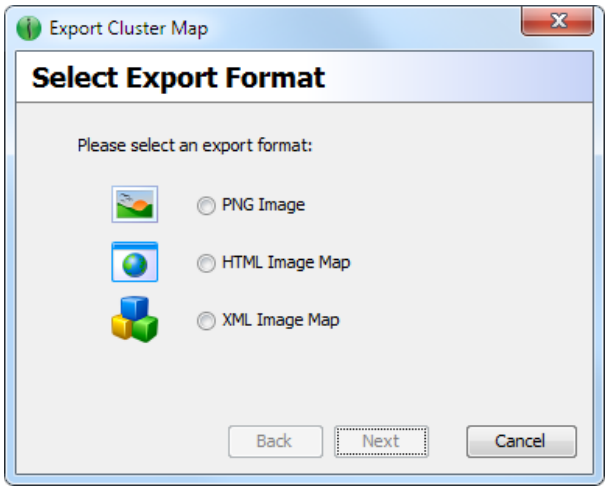
Results can be opened in the viewer by double-clicking on their spheres in the graph. Results can also be opened in the Details panel by double-clicking on the row in table view, or by clicking on the title in list view.

Tip: Details about individual results are shown in a tool tip that pops up when the mouse cursor is hovered over an item in a cluster.

12.2.3 Export cluster map

You can export the current Cluster Map graph as a PNG image, HTML, or XML image map (used to publish the map on a web-page).

To export the Cluster Map, go to Export > Cluster Map... In the wizard dialog, select the desired export format and enter a file name.



12.2.4 Using suggestions

When the user selects a cluster in the Cluster Map, statistical measures are used to determine relevant terms for this set. These terms are listed as keyword search suggestions in the Keyword Suggestions facet and can be used to narrow down the search. When no selection is made, the union of all result sets is used to determine the suggestions.

12.3 Options

The Cluster Map options and settings can be accessed through the buttons in the Cluster Map toolbar.

- **Display individual results / Display clusters as single visual entities**

These two buttons switch between two modes of cluster visualization. In the first mode, each individual item is shown as an individual visible item within a cluster. Placing the mouse cursor above this item will show information about the item in a tool tip. If you do not need this much detail in the graph, you can use the second mode, in which individual items are not displayed within the clusters. When you click on a cluster, the detailed information is shown in the Details Panel.

- **Change color scheme** 
  This button opens a menu to choose a scheme to colorize the clusters in the map. There are three color schemes:
  - Result Based Colors (default): in which each query result set has its own color.
  - Rank Based Colors: in which the result set that matches the most queries has the darkest color. The less it matches, the lighter the color.
  - Uniform Colors: where all results have the same color, until you make a selection, then the selections takes on a darker color.

- **Hide less connected clusters** 
  If this option is enabled, the clusters with fewer connections will be hidden.

- **Scale the graph to fit the available screen space** 
  If this option is enabled, the cluster map size will be automatically adjusted for the screen space of the panel (no scrollbars will appear). This option can also be accessed through View > Cluster Map > Scale to fit window.

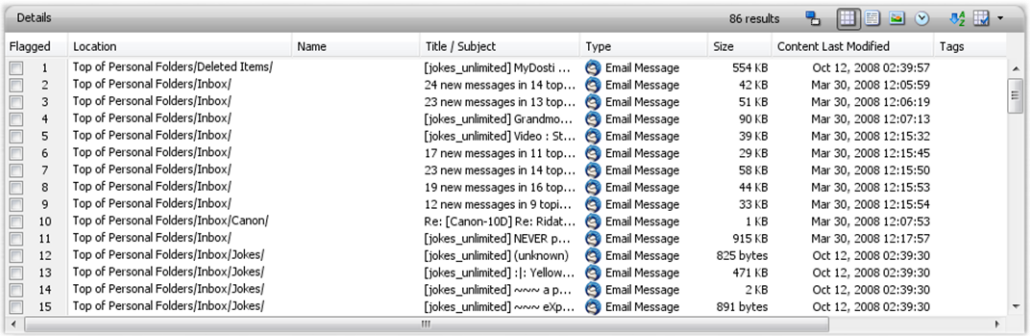
13 Details panel

In order to inspect the contents of the visualization, the user can select a cluster or result set by clicking on it. Its contents will be displayed in the "Details" panel below the map. This panel contains a list of the items that can be presented in four modes:

- Table view
- List view
- Thumbnails view
- Timeline view

Note: Switching display mode is done by clicking the "Display results XXX" buttons. With the **Display results in a table** button you can switch to the table view of the results list. **Display results in a list** shows a list with five results per page (configurable in the Preferences panel: File > Preferences). With the **Display results as thumbnails** button you will switch to the thumbnail view. With the **Display results in a timeline** button you will switch to the timeline view.

13.1 Table view



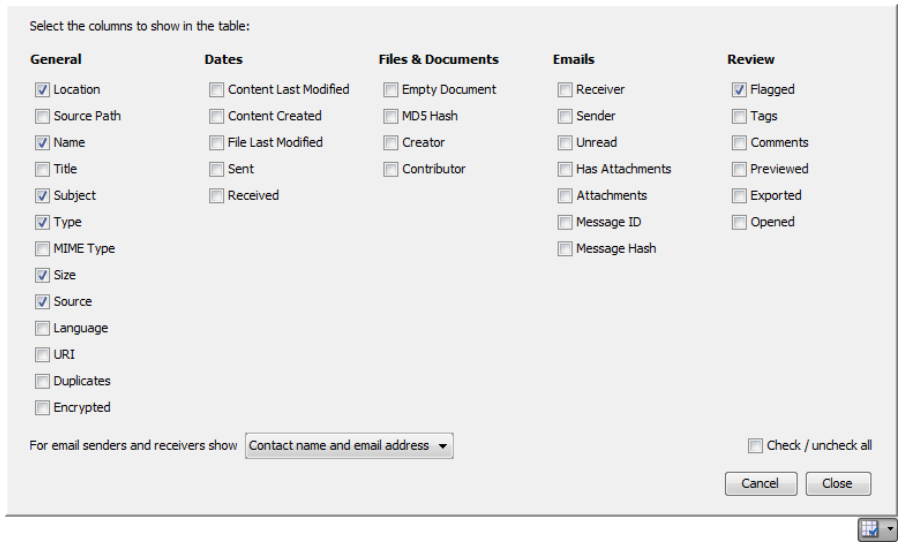
Flagged	Location	Name	Title / Subject	Type	Size	Content Last Modified	Tags
1	Top of Personal Folders/Deleted Items/		[jokes_unlimited] MyDosti ...	Email Message	554 KB	Oct 12, 2008 02:39:57	
2	Top of Personal Folders/Inbox/		24 new messages in 14 top...	Email Message	42 KB	Mar 30, 2008 12:05:59	
3	Top of Personal Folders/Inbox/		23 new messages in 13 top...	Email Message	51 KB	Mar 30, 2008 12:06:19	
4	Top of Personal Folders/Inbox/		[jokes_unlimited] Grandmo...	Email Message	90 KB	Mar 30, 2008 12:07:13	
5	Top of Personal Folders/Inbox/		[jokes_unlimited] Video : St...	Email Message	39 KB	Mar 30, 2008 12:15:32	
6	Top of Personal Folders/Inbox/		17 new messages in 11 top...	Email Message	29 KB	Mar 30, 2008 12:15:45	
7	Top of Personal Folders/Inbox/		23 new messages in 14 top...	Email Message	58 KB	Mar 30, 2008 12:15:50	
8	Top of Personal Folders/Inbox/		19 new messages in 16 top...	Email Message	44 KB	Mar 30, 2008 12:15:53	
9	Top of Personal Folders/Inbox/		12 new messages in 9 topi...	Email Message	33 KB	Mar 30, 2008 12:15:54	
10	Top of Personal Folders/Inbox/Canon/		Re: [Canon-10D] Re: Ridat...	Email Message	1 KB	Mar 30, 2008 12:07:53	
11	Top of Personal Folders/Inbox/		[jokes_unlimited] NEVER p...	Email Message	915 KB	Mar 30, 2008 12:17:57	
12	Top of Personal Folders/Inbox/Jokes/		[jokes_unlimited] (unknown)	Email Message	825 bytes	Oct 12, 2008 02:39:30	
13	Top of Personal Folders/Inbox/Jokes/		[jokes_unlimited] :|: Yellow...	Email Message	471 KB	Oct 12, 2008 02:39:30	
14	Top of Personal Folders/Inbox/Jokes/		[jokes_unlimited] ~~~~ a p...	Email Message	2 KB	Oct 12, 2008 02:39:30	
15	Top of Personal Folders/Inbox/Jokes/		[jokes_unlimited] ~~~~ eXp...	Email Message	891 bytes	Oct 12, 2008 02:39:30	

The table view displays the results as a table in which each row represents a single item and the columns represent the attributes such as title, date, location etc.

The set of attributes to display can be customized with “Toggle visible table columns” button - the right button of the Details Panel Control.

Click on a table column header to sort the table by specific item attributes.

13.1.1 Adding and removing columns



With the “Toggle visible table columns” button in the Details toolbar you can add and remove columns in the table, by (de)selecting column names in the popup that shows when you click the button. The selected columns are stored: every time you start Intella these columns will be shown until you select other columns.

This option is only available in the Table view.

The following columns are available:

- **Location**: Name of the location where the item is stored. This can be the name of folder in a file system or the name of an email folder.

- **Name**: The file name of a document item.
- **Title**: The title of a document item.
- **Subject**: The subject of an email or document item.
- **Type**: The item's type, such as “MS PowerPoint Document” or “Email Message.”
- **MIME type**: The type of an item according to the MIME standard.
- **Size**: The item's size in bytes.
- **Content Last Modified**: Shows the date that the content of the item was last modified.
- **Content Created**: Shows the date that the content was created.
- **File Last Modified**: Shows the date of the last time the file was modified.
- **Sent**: The date the item was sent.
- **Received**: The date the item was received.
- **Source**: The name of the Intella source that holds the item.
- **Language**: The language of the item's text. The language field is left blank when the language cannot be detected automatically.
- **Creator**: The name(s) of the creator(s) of a document item.
- **Contributor**: The name(s) of the contributor(s) of a document.

- **Sender**: The name and email address of the sender(s) of an email item.
- **Receiver**: The name and email address of the receiver(s) of an email item.
- **URI**: Uniform Resource Identifier, the identifier used internally by Intella for the item.
- **Has Attachments**: Emails that are marked as having attachments.
- **Attachments**: Shows the file names of an email's attachments.
- **MD5 Hash**: The MD5 hash that uniquely identifies the item.
- **Duplicates**: Shows the number of duplicates of an item within the case.
- **Flagged**: Shows a column at the left side of the table that indicates if an item is flagged. Click the checkbox if you want to flag an item.
- **Tags**: Shows the tags connected to an item.
- **Encrypted**: Shows if an item is encrypted.
- **Comments**: Shows if an item has comments. If so, an yellow note is shown in the table. Hover over the yellow note to see the comments attached to the item in a small popup window.
- **Message ID**: Shows the Message ID for email messages.
- **Message Hash**: Shows the Message Hash for email messages.

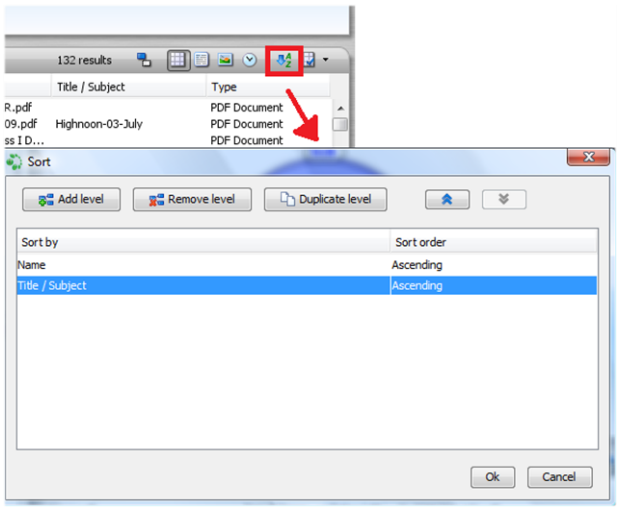
- **Previewed**: Shows if an item has been opened in the previewer.
- **Opened**: Shows if an item has been opened in its native application.
- **Exported**: Shows if an item has been exported.
- **Unread**: Shows if an email item was unread at the time of indexing.
- **Empty document**: Shows that the item has no text while text was expected. Example: a PDF file that contains only images.
- **Source Path:** The path to the evidence, e.g. the PST or NSF file, or the root folder of a Folder source. This helps reviewing items when dealing with a lot of evidence files – the name of the evidence file and the derived source name may not hold enough information to easily discern the origin of the information.

13.1.2 Reorganizing table columns

The columns can be reorganized by dragging a column header to a different location in the table. The order is persistent across application sessions, but specific to that case.

13.1.3 Sorting the list

By clicking on a column header, the search results will be sorted alphabetically, numerically, or chronologically, depending on the type of information shown in that column. By clicking the header once more, the sort order will be reversed. Clicking one more time will remove the sorting, letting the results be displayed in their original order.



With the “Sort table” button you can extend the sorting setup. This feature allows you to add multiple sort levels, which means that if the first column is not met, sorting will be based on the second (third, fourth, etc.) column selected. You can also specify the sort order per column by select ascending (A-Z) or descending (Z-A) order. This dialog lets you use all of the columns available, regardless of whether the column is currently present in the table.

Sorting my multiple columns can also be achieved by holding the Ctrl button while you click on column names. Any additional column will be added to the list of sorting criterions.

13.1.4 Deduplicating results

With the “Deduplicate results” button, duplicates are removed from the search results list based on the MD5 hashes of the results. The text next to the button informs you if duplicates are removed and how many duplicates are removed, if applicable.

Note: This option is only available in table view.

13.1.5 Showing a conversation

Right-clicking an email item and selecting the “Show conversation” option will display a new result set in the Cluster Map -- its label starting with “Conv: ….”-- showing all e mail items that are part of the conversation, including replies and forwarded messages.

Note: This option is only available in table view.

13.1.6 Showing the child items

To determine all items nested in an item, right-click on the item and select Preview. Next, switch to the Tree tab to see the full hierarchy, including all child items.

To determine the children of a set of selected items, select all relevant items in the Details table, right-click on one of them and click the “Show children”

option. This will open a dialog that asks you what children to put in the result set, as child items may also again contain child items.

13.1.7 Showing the parent items

Right-click an email attachment and select the option “Preview parent email” to view the email message that contains the selected item. This feature looks up the parent item recursively until it reaches an email item.

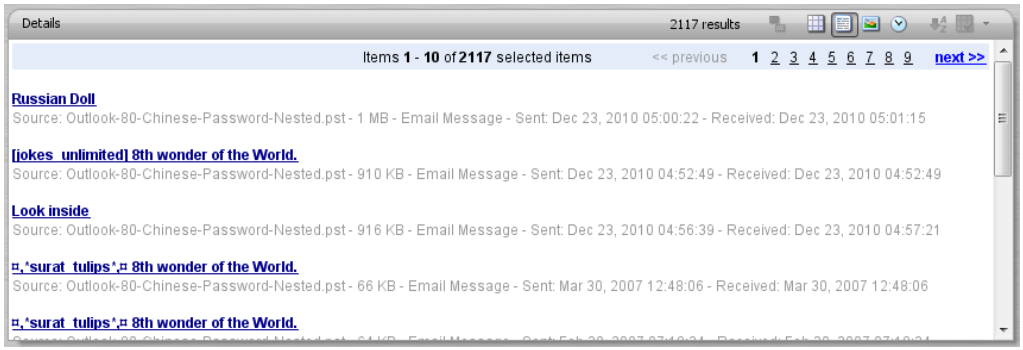
Note: This option is only available in table and thumbnails view.

To determine the parent of a set of selected items, select all relevant items in the Details table, right-click on one of them and click the “Show parents” option. This will open a dialog that asks you what parents to produce, as there may be multiple parents in the path.

13.2 List view

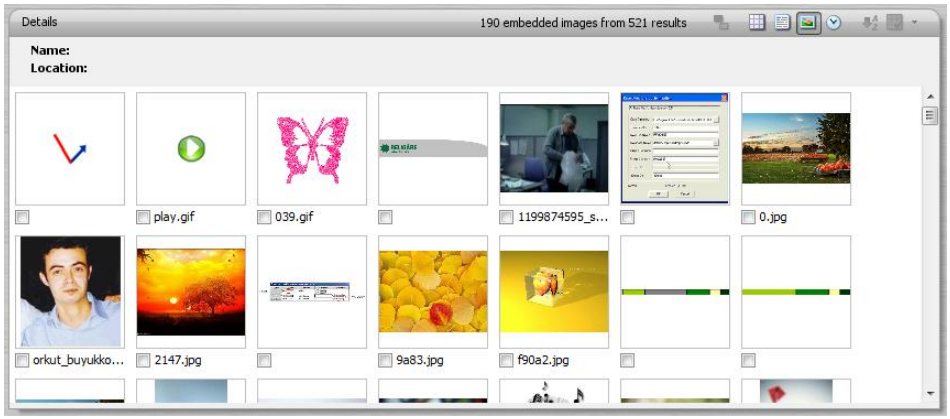
List view displays the results in a form similar to conventional web search engines (select the third button in the Details Panel Control). For each item, the title and other important metadata will be displayed.

For your convenience, the list is split into separate pages.



13.3 Thumbnails view

The Thumbnails view displays the thumbnails of the images detected within a selected cluster. This includes images embedded in email attachments and images inside documents.

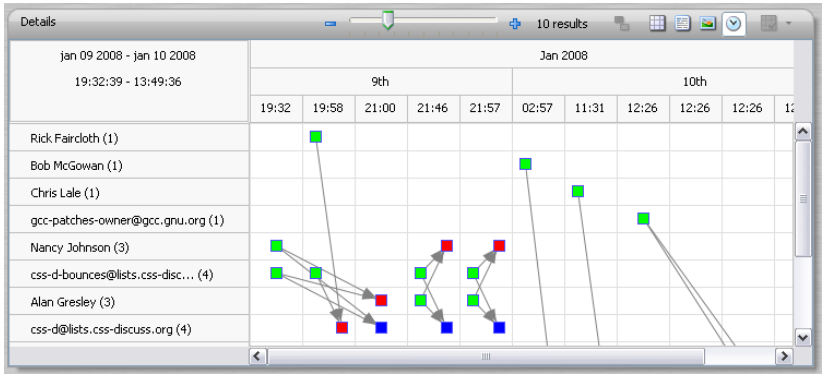


Hover over the thumbnails with your mouse cursor to see a summary of the data connected to the image. You can flag an image with the checkbox below the thumbnail.

When you double-click a thumbnail, the image will open in the previewer.

13.4 Timeline view

The Timeline view shows a chronological representation of email communications. The left pane shows the email senders and receivers, with their communication plotted chronologically. Every arrow in the timeline view is an email and points to the receiver of the email.



The green squares are senders. The red squares are receivers on the To-list. The blue squares are receivers on the CC-list. Cyan squares are receivers on the BCC list.

Tip: When you click an arrow, the arrow, the connected arrows, and the connected squares will be highlighted. When you double click an arrow, the email will show in a preview window.

Tip: Export a timeline by choosing Export > Timeline… from the menu. The timeline will be saved as a PNG image.

14 Tagging

Tagging is the process where you connect a descriptive word to an item or a group of items. For example: One of your items is a PDF document that contains valuable information. You decide to tag the item with the word "important." Tagging helps you to organize results, for example by separating important and unimportant information.

Tagging can be done in several ways in Intella. This chapter gives you an overview of the possibilities:

- Tagging in the main window
- Tagging in the previewer
- Letting other items inherit tags automatically
- Pin a tag to a button
- See all tagged items
- Searching with tags
- Deleting a tag

14.1 Tagging in the main window

14.1.1 Adding tags

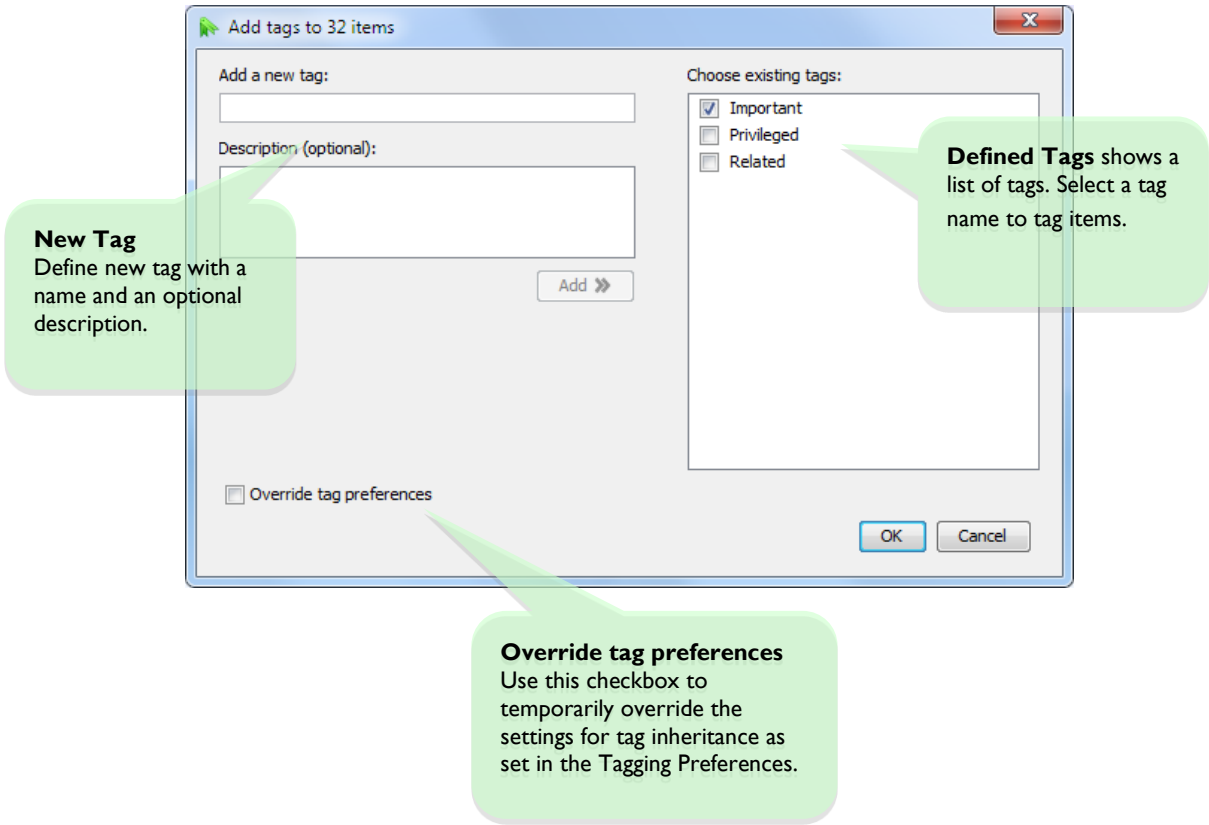
To add tags:

1. Select one or more items from the table, the thumbnail view or the timeline.

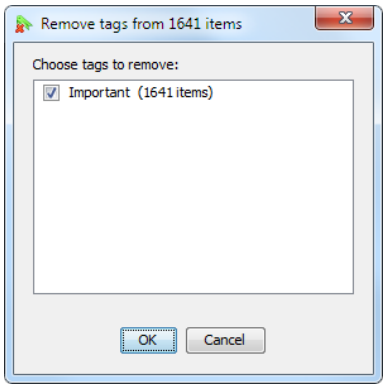
2. Open the context menu (right mouse click), and select "Add tags..."

3. In the "Add tags to x items" dialog you can select already defined tags, or define a new tag with optional description. When you click OK, the marked tags will be linked to the selected items.

The Add Tags menu option is also available in the Cluster Map. Right-click on a cluster or label to open a popup menu with this and other options.



14.1.2 Removing tags



If you want to remove a tag, please take the following steps:

1. Select the items from which you want to remove the tags in the table, timeline, thumbnail view, or cluster map panel.

2. Open the context menu (right mouse click), and select the Remove tags... menu option.

3. In the Remove tags from x items dialog select the tags that you want to remove, and click OK.

Now the tags are no longer connected to the items.

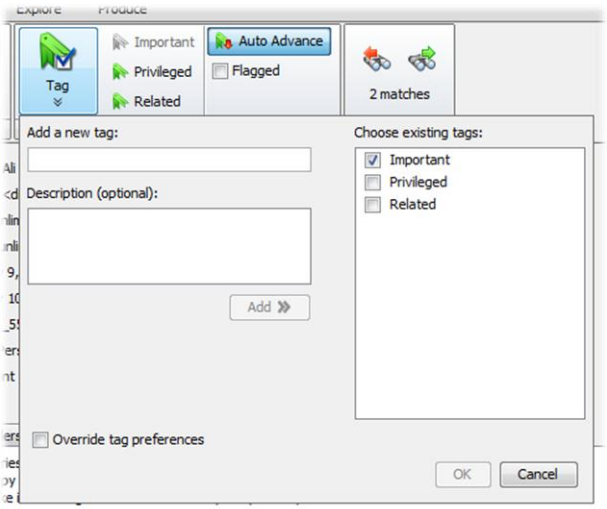
Important: Removing a tag does not delete a tag from your case. It only removes the connection between a tag and an item.

14.2 Tagging in the previewer

If you want to tag or remove a tag in the previewer, please take the following steps:

1. Open the previewer and select the Review tab

2. Click the Tag button to open the tag space



3. Enter a new tag or select an existing tag. To remove a tag (to remove the connection between an item and a tag) just deselect the tag from the list.

Three, six or nine tags can be shown as button in the previewer. When a tag is listed as a button, clicking the button results in the tag being assigned to the current item. You can set the desired amount of these quick-tag buttons in the File > Preferences > Results tab > Previewer section.

You can also use Ctrl+1, Ctrl+2, Ctrl+3, etc. to quick-tag an item. The numbers correspond with the button positions.

When the 'Auto Advance' toggle button is selected, the previewer will automatically switch to the next item in the list.

14.3 Automatic tag inheritance

When tagging items, the policy of your investigation may be that some related items should be tagged as well. One use case is when tagging items as irrelevant: all nested items may then be considered as irrelevant as well. Another use is tagging items as privileged; depending on your policy, this may then be extended to all other items within the same mail as well.

Intella offers mechanisms that let these additional tags to be set automatically. For more information, see section 18.4.

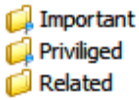
14.4 Pin a tag to a button

In File > Preferences > Results tab > Previewer section you can select the number of quick tag buttons: three, six or nine. The default value is three quick tag buttons.

You can pin a tag to a button and keyboard shortcut (Ctrl+1, Ctrl+2, Ctrl+3) with the following steps:

1. Select Tags in the facet panel
2. Right click on a tag in the list to open the context menu.
3. Select “Pin tag to button” and select a number from the submenu.

Now you can use the buttons in the previewer and the keyboard shortcuts to tag an item.



Tags that are pinned to a button are marked with a small blue pin in both the Tag facet and previewer.

Note: To unpin a tag from a button, select 'Unpin tag' in the context menu of Tags.

14.5 See all tagged items

To get an overview of all items that are tagged in your case, please take the following steps:

1. Select Features in the facet panel.

2. Select Tagged from the list and click Search

Now you can see all the items that have a tag in the Cluster Map panel.

14.6 Searching with tags

To search with tags, please take the following steps:

1. Select Tags in the facet panel.

2. Select a tag and click Search

Now you can see the items that have the selected tag in the Cluster Map panel.

14.7 Deleting a tag

To delete a tag from your case, please take the following steps:

1. Select Tags in the facet panel.

2. Right click on a tag in the list.

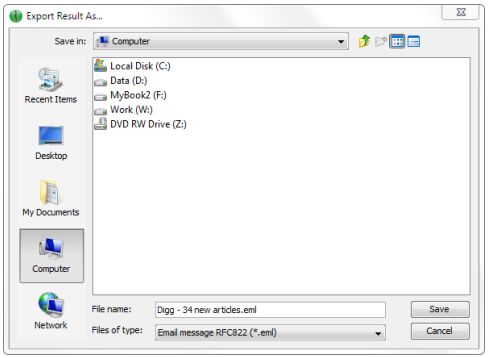
3. Select “Delete” and confirm.

Now this tag is no longer in your case.

15 Exporting

Intella supports a number of exporting formats, each focusing on a different use case.

15.1 Exporting a single result



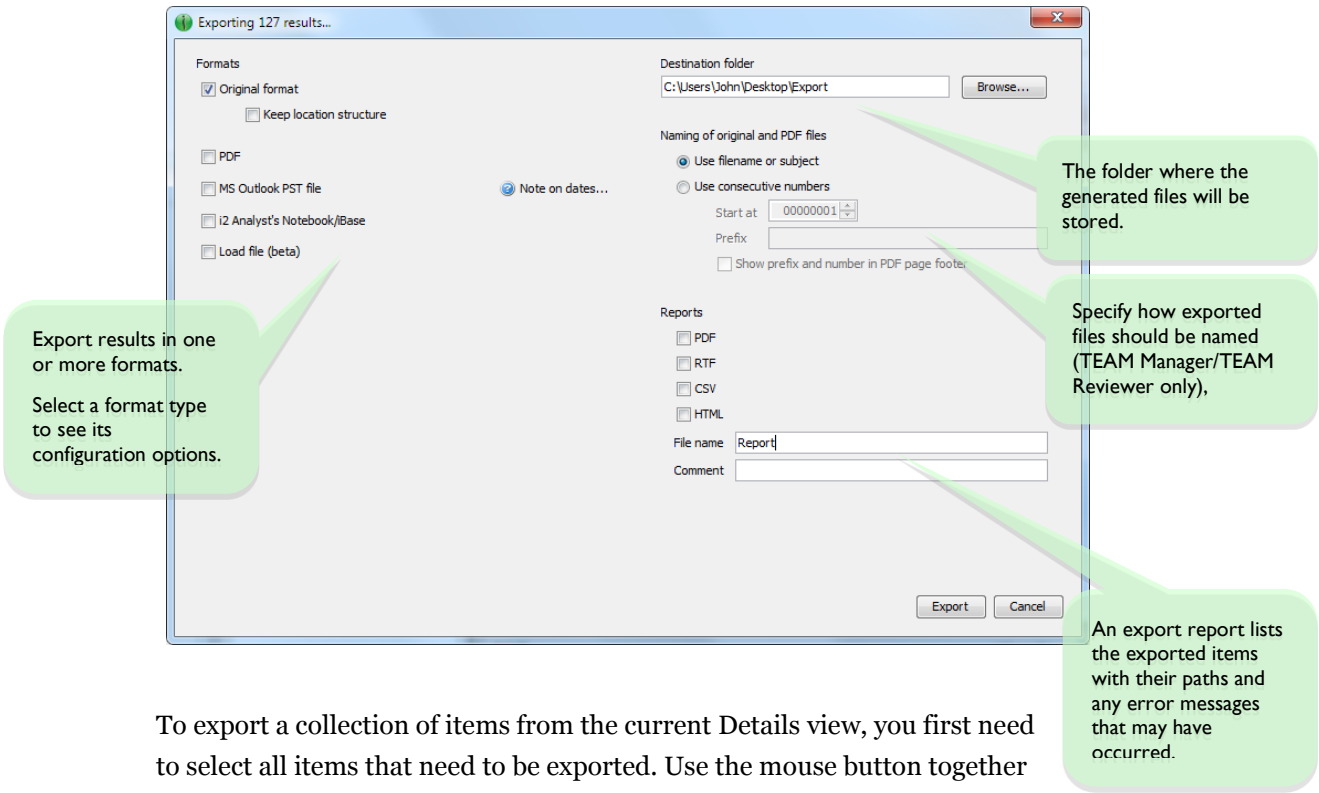
A single result can be exported by right-clicking on a row in the Details table (or on the item in any of the other views) and selecting “Export…” in the content menu. Alternatively, select an item by clicking on it and choose Export > Result… in the menu bar.

A file chooser will open that lets you specify the folder and file name. Click “Save” to export the result to that file. The mouse cursor will show a “busy” icon while the exporting is taking place.

The result will be saved in its original format, i.e. a Word document attached to a mail gets saved as a Word file. All mails from mail sources (PST/OST/NSF/DBX/MBX/Mbox files and IMAP servers) are exported as EML files. Evidence files that are already in EML, EMLX or MSG format as exported as such.

Exporting of a single result may take some time as the original mail container (e.g. a PST file) has to be opened and the mail or attachment has to be located.

15.2 Exporting a list of results

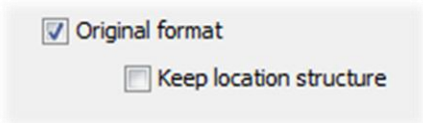


To export a collection of items from the current Details view, you first need to select all items that need to be exported. Use the mouse button together with the Shift or Ctrl key to select blocks of adjacent items, or right-click and click “Select all” in the context menu.

Next, right-click and choose “Export highlighted items...” to open the dialog shown above. Alternatively you can use the Export >Result List... option in the menu bar. This dialog lets you choose the export formats and further configuration options. When you click on the checkbox of an export format, all options for that format will unfold beneath the checkbox.

15.2.1 Exporting to original format

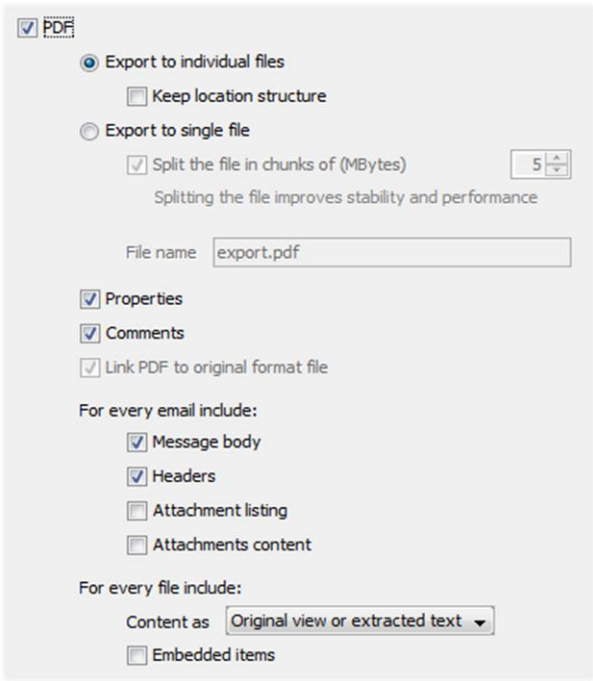
The “original format” option exports a file into its original format, i.e. a Word document attached to a mail gets saved as a Word file.



All mails from mail sources (PST/OST/NSF/DBX/MBX/Mbox files and IMAP servers) are exported as EML files. Evidence files that are already in EML, EMLX or MSG format as exported as such.

Select the option "Keep location structure" to preserve the original folder structure during the export. A folder will be created for every source, in which the original folder structure of that source (as shown in the Location facet) will be recreated.

15.2.2 Export to PDF



Select the PDF format to create PDF documents containing the contents of the items you selected.

You can choose to export to individual PDF files, one for every selected item, or to export all items into one single concatenated PDF file.

When exporting to individual PDF files, select the "Keep location structure" option to preserve the original folder structure during the export.

When exporting to a concatenated PDF, the resulting PDF can optionally be split in chunks of a given size. This is recommended for performance and stability reasons.

For all types of items you can indicate whether to include the properties and comments. Note that these may include sensitive information such as evidence file names, investigator remarks, etc.

The properties include attributes such as titles, authors, all dates, hashes, sizes, etc.

The comments are those made by reviewers on the item, they are not to be confused with e.g. the comments in a Word document.

When exporting to PDF and Original Format simultaneously, the "Link PDF to original format file" option becomes available. When selected, each PDF(s) will contain link(s) to the file representing the item in original format.

For emails the following information can optionally be included:

- The message body.
- The email headers.
- A list of all attachments. The file name, type and size of each attachment will be mentioned.
- The actual contents of those attachments. The original view (described below) will always be preferred, with the extracted text used as a fall-back.

Note that for emails, a simple header block with the most important information like senders, receivers, subject and date will always be included. It is not necessary to check the Properties or Headers for that.

For loose files and attachments that are not emails, the following options are available:

- Include the file's content. By default, the original view is used, i.e. a Word document is rendered as Word would render it, and the extracted text is only used when the original view cannot be made, e.g. because the file format is not supported. Alternatively, you can configure exporting to always use the original view, always use the extracted view, or both.
- List all embedded items, e.g. images found in the document.

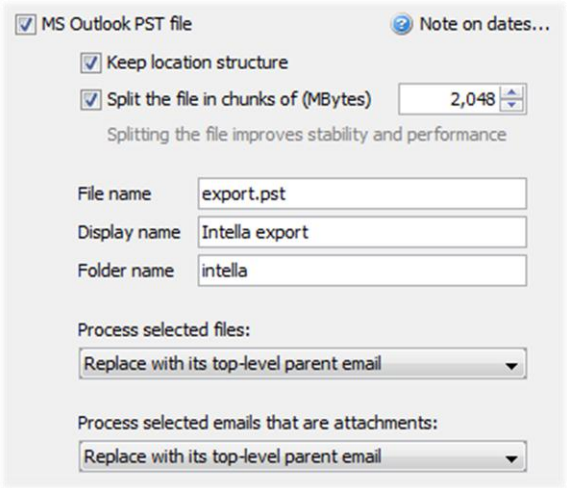
The following file formats can be exported in their original view:

- MS Office (doc, docx, xls, xlsx, ppt, pptx)
- Open Office (Writer, Calc, Impress)
- WordPerfect
- RTF
- HTML
- PDF

Note: To export most of these formats in their original form, a local installation of MS Office 2010, or an MS Office 2007 installation with the "Save as PDF" add-in, is required.

We strongly recommend that you do not use any MS Office applications until exporting to PDF has completed. Using these applications during exporting can result in these applications exiting suddenly and without warning, risking data loss on any opened documents.

15.2.3 Export to PST



You can export selected emails to a PST file. The main purpose of this option is to use the PST file as a carrier for transport of emails. The receiver can open the PST file in Microsoft Outlook to see the exported emails.

Select the "MS Outlook PST file" option and enter a file name for the PST.

Enter a display and folder name. After opening the exported PST file in MS Outlook you will see the names you entered. They help you to locate the PST file and its contents in MS Outlook.

Select the option "Keep location structure" to preserve the original folder structure during the export.

The resulting file can optionally be split into chunks of a given size. This is highly recommended for larger result sets that would make the PST grow beyond the default suggested file size, as Outlook may become unstable with very large PST files. The produced files will have a file size that is close to the specified maximum file size (usually smaller). The export report will list for every item to which PST it was added.

How to export non-email items to a PST file?

Suppose you have a set of results that you want to export, consisting of emails and other types of results. By exporting this set to a PST file, you would *not* get the non-email items such as attached PDF files and MS Word documents in your export. A PST file can only contain email messages and their attachments. Attachments can only become part of the PST by including their parent emails instead.

The Export to PST function allows you to automatically include the parent item of attachments being exported to a PST. You can choose to either include the top-level email parent or the direct email parent. An example would be an attachment contained within an email message within another email message. With the top-level parent selected all parent items of the attachment (both emails) would be included in the PST, one nested within the other. The second option exports the nested email to the PST. You can also choose to simply skip non-email attachments.

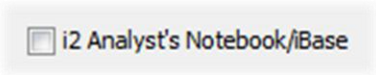
Note: Files in a folder source lack a parent email and therefore cannot be exported to a PST file, except for EML, EMLX and MSG files.

How to export attached emails?

The last setting controls what happens with emails that are selected for export and that also happen to be attachments. These are typically forwarded messages. Such emails can technically be exported to a PST without any restrictions, but the investigation policy may require that the parent email is exported instead, to completely preserve the context in which this email was found. That can be done by choosing the *Replace with*

its top-level parent email option. Alternatively, use the *Export attached email* option to export the attached email directly to the PST.

15.2.4 Export to iBase and Analyst's Notebook



Intella can export its results into a format that can easily be digested with i2's Analyst's Notebook and iBase products. All metadata of all items, all attachments and all email bodies can be imported into these tools, allowing rapid social network analysis and all other analytical abilities of these applications on email evidence data.

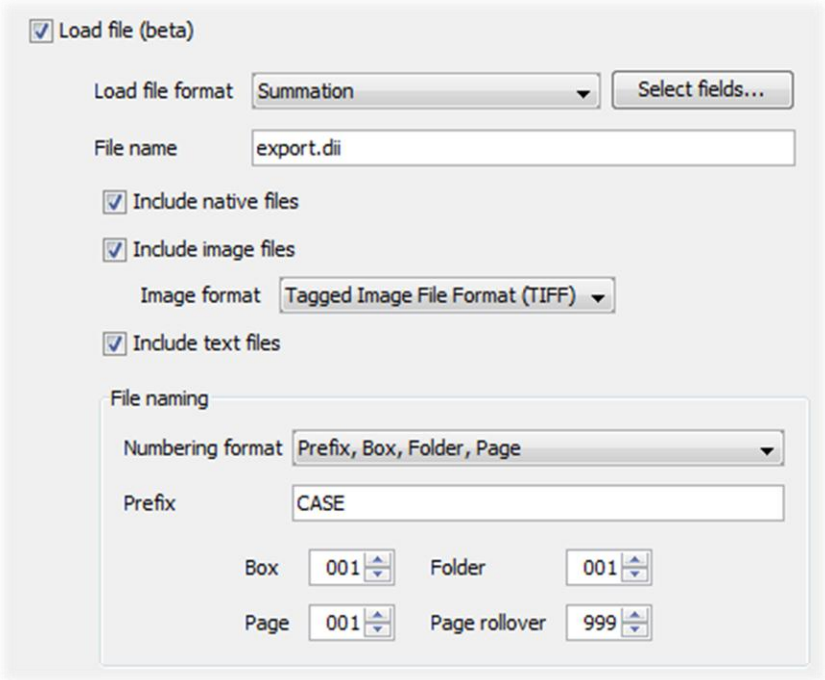
Templates, import specifications and instructions are provided for Analyst's Notebook and iBase. Please contact support@vound-software.com for more information.

15.2.5 Export as a Load File

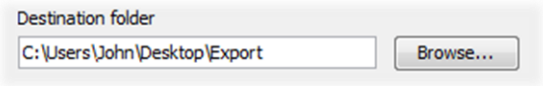
Intella 1.5.2 introduces the ability to export selected items as a so-called "load file", for use in legal review applications. Currently supported are Summation DII files and Concordance DAT files.

This functionality is currently in beta and may change in future versions.

A future version of this manual will describe the settings for each type of load file in detail.



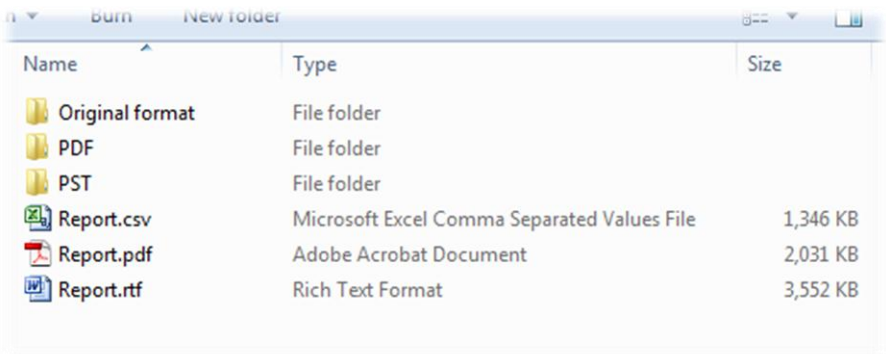
15.2.6 Destination folder



All produced files will be placed in the selected destination folder.

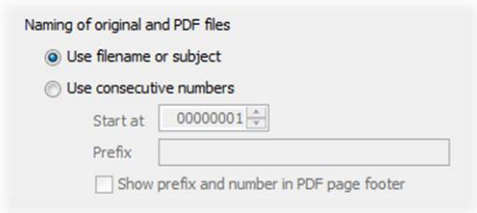
Though Intella tries not to overwrite any files in the specified folder, we recommend specifying an empty folder to be sure.

For every selected format type a subfolder will be created that holds the files of that export type. All export reports will be placed in the top folder itself.



When exporting a number of sets to the same destination folder, the subfolders with produced files will be merged, but earlier produced files will not be overwritten. Each export run will have its own set of export reports.

15.2.7 File numbering



By default, exported files will be named using the original evidence file's name or the subject of an email. Alternatively, you can choose to number the files using consecutive numbers.

The following options are available:

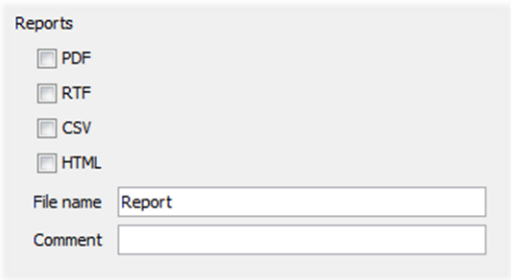
- The number to start counting with. By default, exporting starts counting at 1. A typical reason to use a different number is when you want to combine the exported results

with another set of already exported files. Numbers are always 8 digits long.

- A prefix. Anything you type here will be added to the beginning of the filename. E.g. the prefix “export-” will result in the first email being named export-00000001.eml.
- When items are being exported to PDF, whether the prefix and number should be mentioned in the footer of the PDF.

The file numbering panel is only enabled when Original Format or PDF is selected.

15.2.8 Creating a report



You can indicate whether you want to create an export report for this export. The report can be formatted as a PDF, RTF, CSV and/or HTML file.

For PDF, RTF and HTML reports you can also add a comment that will be displayed on the first page of the report.

Export reports link the original files to the exported files, by listing identifying information about the original item (e.g. source evidence file, MD5 hash) and linking to the exported file. Also the export report may contain information that is lost during export, such as the evidence file’s last modification date; like any copy, the export file has the date of export as its last modification date.

Important: If the export of a specific result resulted in errors, you will be notified with an error message in the application. You can find the error notifications at the end of the PDF and RTF report or in the last column of the CSV report.

15.3 Exporting to a CSV file

You can export a results list to a comma separated value (CSV) file. A CSV file contains all information listed in the table. CSV files can be opened in a spreadsheet application such as Microsoft Excel and can be processed through scripting, which opens up new analytical abilities. This functionality can also be used to generate MD5 lists.

To export the table to a CSV file:

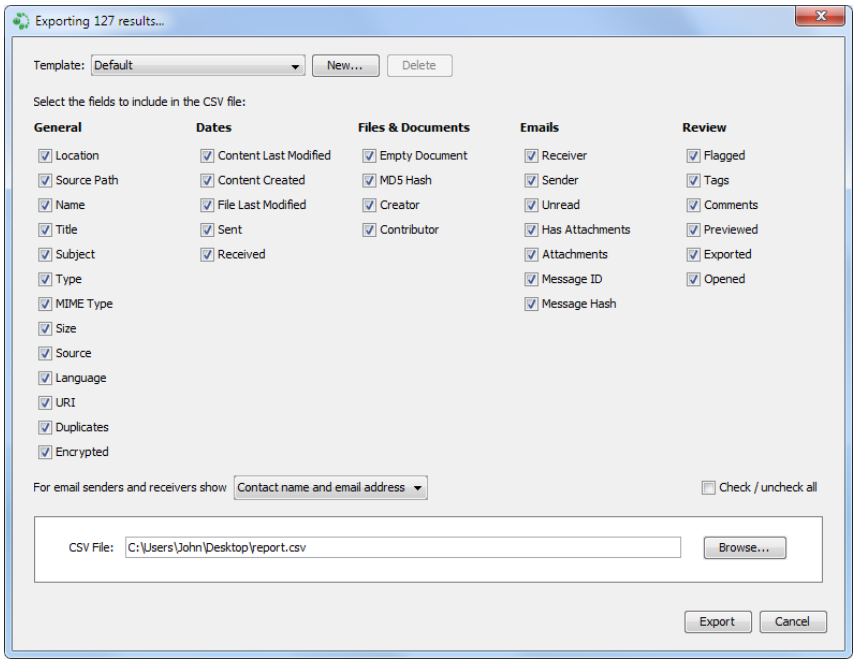
1. Select the results in the table that you want to export to a CSV file.

   You can use the Select All option in the right-click menu to easily select all rows.

2. Right click on the selected files and click “Export table as CSV…”.

3. Marks the names of all columns that you want to include in the CSV file.

4. Give the CSV file a name and select Export.



The selected columns are stored so that the next time you bring up this dialog, the same columns will be selected. Should you frequently use different export settings, then you can save these as separate templates. Click the “New…” button to create a new template and enter a name. The new template will automatically be selected and any selection changes will be stored under

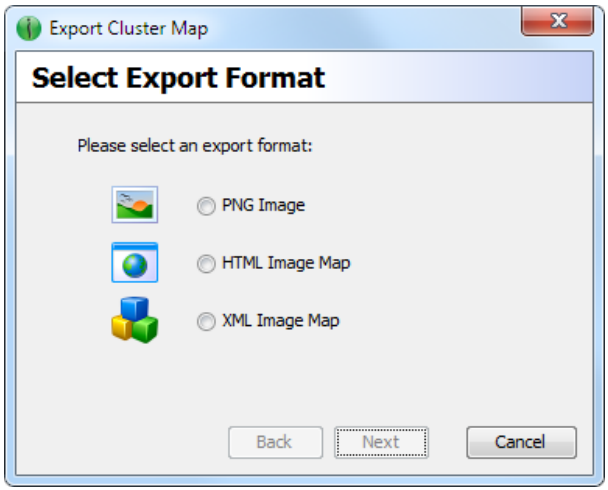
that template name. Click the drop-down list to go back to the previous (default) template. The settings will now be restored to what they were before you created/selected the other template.

The contents of the Senders and Receivers columns are configurable to show either the contact name(s), the email address(es), or both.

15.4 Exporting a Cluster Map

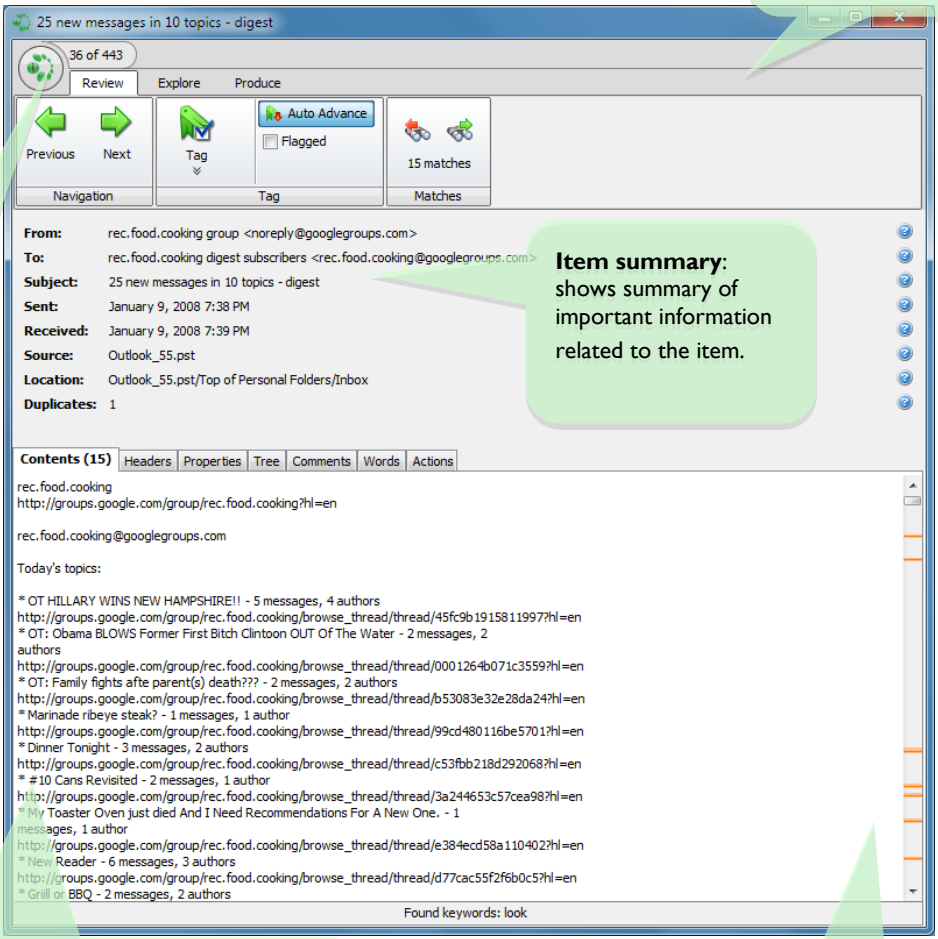
You can export the current Cluster Map graph as a PNG image, HTML, or XML image map (used to publish the map on a web-page).

To export the Cluster Map, go to Export > Cluster Map... In the menu bar, select the desired export format and enter a file name.



16 Previewing results

Previewer window: opens when item in table is double clicked.



Previewer actions: click Review, Explore or Produce to see Previewer actions

Item summary: shows summary of important information related to the item.

Item tabs: inspect an item's contents, headers, properties, attachments, thumbnails, tree structure, extracted words, comments and performed user actions.

Search term hit: Location of search terms in the text.

16.1 Overview of the Previewer

When you double click an item, it will open in the Previewer. This component allows you to inspect, flag, and tag the item, to explore its relations with other items, and to export the item for later use.

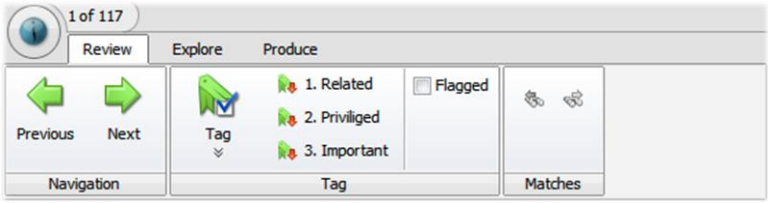
Below you will find the following information on the Previewer:

- Explanation of the previewer window.
- Reviewing an item.
- Exploring an item's relations.
- Producing reports and tabs and exporting an item.

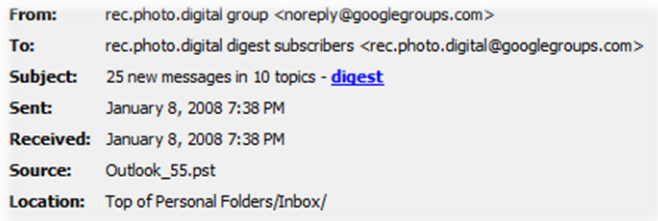
16.2 Previewer window

The previewer window has several parts:

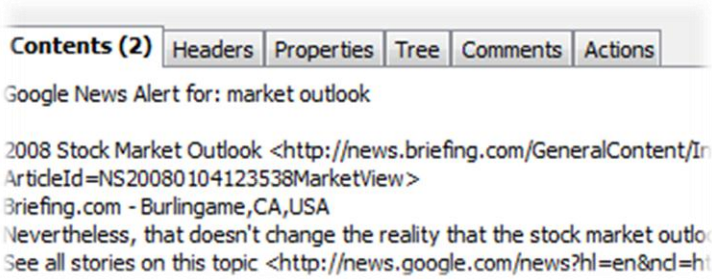
- The top part where you find three task panels: Review, Explore, and Produce. Every panel contains a strip of buttons that enable operations on the item in the previewer.



- The middle part that lists important information related to the item shown in the previewer.



- The lower part where you will find tabs such as Contents, Headers, Properties, Attachments, Thumbnails, Tree (hierarchy structure), Comments and Performed User Actions. The available tabs will differ, depending on the type of item you selected.



16.3 Reviewing

The Review tab opens a strip of buttons that allow you to inspect, tag, and flag an item. With the Contents, Headers, Properties, and other tabs you can inspect different parts of the item.

16.3.1 Navigation

- Previous and Next buttons
  Go to the next or previous item in a list. Alternatively you can also use the keyboard shortcuts Alt+right-arrow to go to the next item, and Alt+left-arrow to go to the previous item.

16.3.2 Tag

- **Tag button**
  Opens the tag space where you can add new tags to your case and select a tag from a list of existing tags.

- **Quick tag buttons**
  You can assign a tag to a quick tag button. Clicking the button tags the item and switches the previewer to the next untagged item in

the list. If no tag is pinned to a Quick tag button, it is randomly associated with one of the recently used tags by default.

- **Auto Advance button**
  When this button is selected, clicking the quick tag buttons will switch the Previewer to the next item in the list.

- **Flagged**
  Select this check box to flag the previewed item. You might want to flag an item for organizational reasons. For example, to keep track of the items that you have reviewed in the case.

16.3.3 Matches

- **Red and green arrowed buttons**
  With these buttons you can see where in the Contents and Headers tab search terms appear. When you click a button, the text will scroll to the place of next or previous search term.

Tip: When search terms are present in the text of the item they are highlighted and the scroll bar of the Contents and Headers tab in the previewer will be marked with one or more orange lines. These lines indicate where you can find the search terms.

16.3.4 The Contents tab and other tabs...

- **Contents**
  This tab shows the body of an item.

Note: If the item text is too long, it is truncated in the previewer for performance purposes. Click on the "Show full text" button to view the complete item text

Note: When an item is encrypted, the Contents tab will show an image of a lock, to explain why no text could be shown.

- **Headers**
  This tab shows the complete header of the email item. This tab is only shown when you open an email item.

  Important: Intella indexes all the email headers. You can search for words that are only part of the email headers if you select "Summary & Description" in the Search panel under Options (see Chapter 10Searching).

- **Properties**
  Shows a list of properties connected to the item. For example: Size, Content Created, MIME Type, and Creator.
  The list of properties is different for each type of item.
  To copy all the text to the clipboard click Copy all.

  Tip: Hover over the question marks at the right hand side with your mouse and see a short definition of each property.

- **Attachments**
  Lists of all the attachments of the email item. This tab is only shown when you open an email item.

  Tip: When you double-click an attachment or select it and click View, it will be opened in new Previewer window.

- **Thumbnails**
  Thumbnails of images (jpg, png, gif etc.) attached to an email item or embedded in a document such as the images in a Microsoft Word document.
  Select the checkbox below the image to flag a thumbnail.

  Tip: When you double-click a thumbnail, the image will be opened in a new previewer window.

- **Tree**

Shows the location of the reviewed item in the item hierarchy (entire path from root to descendants), as well as all its child items.

> Tip: The file names and subjects are clickable. You can also right-click and choose to either *select all above* or *select all below*, or simply select items manually, to assign them to a tag.

- **Entries**
  List of entries (items) found in an archive file such as a ZIP file or a RAR file.

> Tip: Tip: When you double-click an archive entry or select it and click View, it will be opened in new Previewer window. If the entry is a sub-folder inside the archive, its content will be opened in the same 'Entries' tab. Double-click the '..' entry on the top of the list to return to the parent folder.

- **Comments**
  This tab lists comments attached to the item opened in the Previewer. Every comment is has an author name and time stamp, and the option to Edit or Delete the comment.

- **Words**
  The Words tab lists all words/terms extracted from this item, together with the following information:
  - the search field the term belongs to: text, title, path, etc.
  - the frequency of the word in this document and document field.
  - the number of documents having this term in the same field.
  This list can be used to diagnose why a certain document is or is not returned by a certain query.
  The list can be exported as a CSV file by right-clicking anywhere in the table. Right-clicking also lets you evaluate a query with the right-clicked term.

- **Actions**
  This tab shows the list of actions performed on an item. The action's date and the user that triggered the action are shown in the list. Actions listed are:
  - Previewed- the item was opened in the previewer.
  - Opened - the item was opened in its native application.
  - Exported - the item was exported.

- **Preview**
  This tab shows the item as if it was opened in its native application. The Preview tab is only shown when the format of the current item is supported and the Contents tab is not already showing it in its native form. The following file formats are supported:
  - Legacy MS Office formats (doc, xls, ppt)
  - New MS Office formats (docx, xlsx, pptx)
  - CSV and TSV files
  - WordPerfect
  - Open Office (Writer, Calc, Impress)
  - RTF
  - HTML
  - PDF

> Note: To preview the MS Office formats, a local installation of MS Office 2010, or a MS Office 2007 installation with the Save as PDF add-in, is required.

16.4 Exploring

To explore an item is to learn more about its relation to other items in the case. For example, an email might be part of a conversation that contains other emails that you would like to investigate.

16.4.1 Search

- **Show Children**

Use this button to search for and display the children associated with the item being viewed in the previewer. When selected, a search result with the associated children of the selected items will be available in the Cluster Map panel. The label of the cluster will be "Children of [file name]" or "Children of [subject]."
An example of a child item would be an attachment of an email. Intella views emails and attachments as separate items. The attachment would be the child of the parent email.
Child items can have child items of their own. Depending on the option that you select, the Show Children shows either only the directly nested children or all children in the tree.

- **Show Conversation**
  Based on the subject of an email item, Intella can find items that are part of a conversation. Click the button Show Conversation to show all these items in the Cluster Map panel.
  The label of this cluster will be "Conv: [email subject]." The email subject is the email subject of the item in the previewer.

- **Show duplicates**
  When an item has duplicates in the case, click Show duplicates to display these duplicates in the Cluster Map. The label of this cluster will be "Duplicates of [file name]" or "Duplicates of [subject]".

- **Show Near-Duplicates**
  Near duplicates are not identical but share large parts of their contents. When an item has near duplicates in the case, click the button Show Near-Duplicates to show them in the Cluster Map panel. The label of this cluster will be "Near duplicates of [subject]".

Note: Intella is capable of finding near-duplicates of an item. Two items are near-duplicates when some parts of their contents are equal. Near-duplicates are detected during indexing. While exact duplicates of items are detected by comparing MD5 hash values, near duplicates are detected with a different

mechanism. Based on the words, the frequency of words in a text, and by taking out the least significant words, Intella creates a pattern for the item that is compared with the patterns of other items. If there is a match between the patterns the two items are considered near-duplicates.

16.4.2 Browse

- **Preview Parent**
  Use this button to open the parent item in a previewer window. A parent item contains one or more items. Example: Pictures found in a Microsoft Word document are separate items in Intella. The Word document is the parent item for these pictures. The same is true for items found in archive file, such as a ZIP file: The archive file is the parent item for these items.

- **Preview Parent Mail**
  Use this button to open the parent email item in a previewer window. A parent email item contains one or more items. Example: A picture attached to an email is a separate item in Intella. The email is the parent for the picture.

16.5 Producing

In the previewer you can export the item and produce two types of reports.

16.5.1 Export

- **Export**
  This button opens the “Export result as” dialog. Enter a name and location if you want to store the item.

- **Print Tab**
  This button opens a print dialog that shows the contents of the selected tabs (Contents, Headers, Thumbnails, etc.) of the item. Click the print button on the lower right to print the item.

- **Print Report**
  This button opens a print dialog that shows the contents of all tabs of the item. If the item has attachments you are asked if these should also be printed. Click the print button on the lower right to print the item.

16.5.2 External

- **Open**
  This button opens the item using the computer's default application (e.g. a PDF file would be opened with Adobe Acrobat Reader if that is the default PDF viewer on your computer).

17 Audit trail

Every case has an audit trail file that contains a list of all user actions. Every line in the file describes a user-initiated action.

The audit trail file is CSV file that can be opened with Microsoft Excel or Open Office Calc.

You will find the audit trail file in the “audits” folder. This is a subfolder in the case data folder.

	A	B	C	D	
1	Opening Case	2010-01-23T08:32:24.910+01:00			
2	Cluster Map Initialized Edge Scheme	2010-01-23T08:32:53.035+01:00			scheme="id
3	Cluster Map Initialized Cluster Scheme	2010-01-23T08:32:53.035+01:00			scheme="ite
4	Cluster Map Initialized Filtering	2010-01-23T08:32:53.035+01:00			filtering="fa
5	Auto-selected Results View	2010-01-23T08:32:55.394+01:00			view="null"
6	Table Initialized	2010-01-23T08:32:55.707+01:00			columns="Fl
7	Case Opened	2010-01-23T08:32:24.910+01:00	2010-01-23T08:33:02.285+01:00		
8	Source Wizard Opened	2010-01-23T08:33:09.410+01:00			
9	Source Defined	2010-01-23T08:55:05.217+01:00		Succesful	ID = "source:
10	Source Wizard Closed	2010-01-23T08:55:05.279+01:00			
11	Refresh Started	2010-01-23T08:55:06.779+01:00			ID = "source:
12	Refresh Completed	2010-01-23T08:55:06.779+01:00	2010-01-23T08:55:53.954	Succesful	ID = "source:

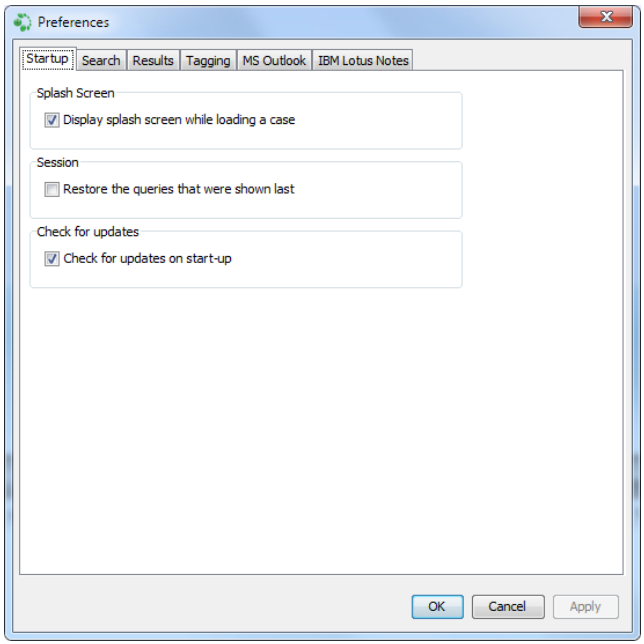
18 Preferences

To open the preferences dialog, select the File > Preferences menu option.

To apply changes of the settings, click the Apply button. To apply changes and close the dialog box, click the OK button. The Cancel button will close the dialog box and discard all unapplied changes.

The specific settings per tab are explained below.

18.1 Startup



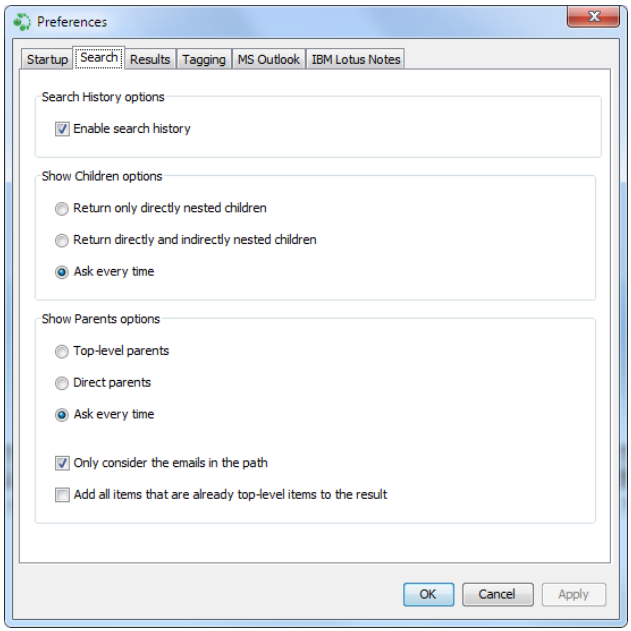
The *Display splash screen while loading a case* option controls whether a splash screen will be displayed after you have selected a case in the Case Manager for opening in Intella.

The *Restore the queries that were shown* last option lets the current queries being stored during shutdown, and restores them the next time the case is opened.

The *Check for updates on start-up* option lets Intella look online for new versions of the software during startup. This lookup will only be done once in every 24 hours.

Note: If you enabled this option, Intella will notify you when it was not able to check for new updates. A message will be displayed in the upper right corner of the main program interface.

18.2 Search



The *Enable Search History* option allows you turn off the search history. The main use of this is when you do not wish these search terms to be recorded – be aware that they are still being added to the audit trail and may leave traces in the log file. This setting is also a workaround for

character sets (e.g. Korean characters) that cannot be entered properly when the history functionality is active.

The Show Children options allow you to specify what children are returned when you click on Show Children in the Previewer or in the search results popup menu. You can specify the level by including only directly nested children (direct children only) or directly and indirectly nested children (all children). When you select the Ask every time option, you will be prompted for the desired level every time you use Show Children.

The Show Parents options allow you to specify the level of search by selecting top-level parents (all items that are at the root of the hierarchy) or direct parents of the item(s). When you select the Ask every time option, you will be prompted for the desired level every time you use Show Parents. Furthermore, you can set it to only consider the emails in the path. This will let all other items be ignored before determining what the top-level or direct parent is. Finally, you can let all items that are already top-level items be added to the result as well.

18.3 Results

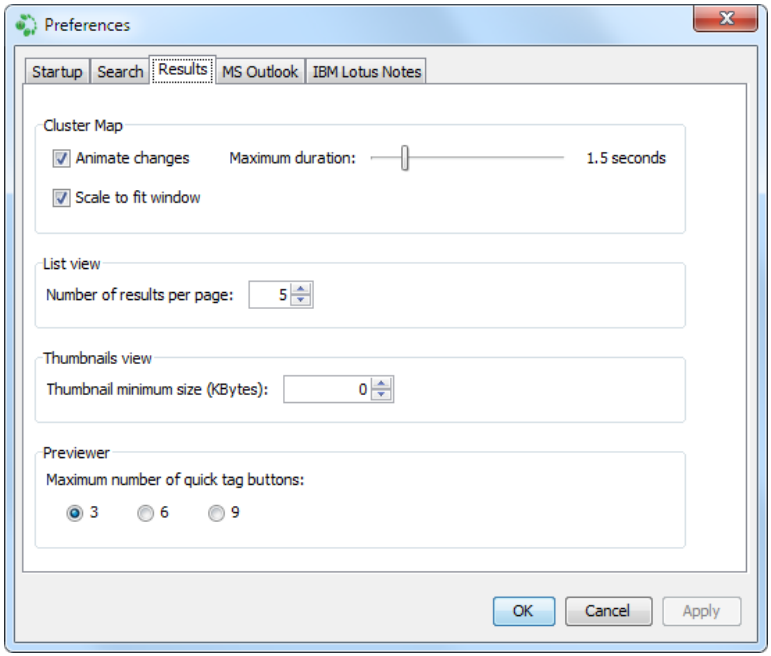
The Cluster Map options let you specify whether transitions on the Cluster Map should be animated and if so, how long that animation may take. You may want to disable animation if it causes performance problems on your system.

Furthermore you can specify whether or not the Cluster Map should automatically be scaled when it does not fit inside the window. You can also change this option using the Cluster map toolbar button, or go to View > Cluster Map > Scale to fit window.

The List View setting defines the number of items to be displayed on a single results page when the List View mode is used in the Details pane.

The Thumbnails View setting controls which thumbnails are shown based on the size of the original image in kilobytes. Images that are below this threshold are filtered out.

The Previewer setting controls the maximum number of quick tag buttons that is shown in the Previewer.



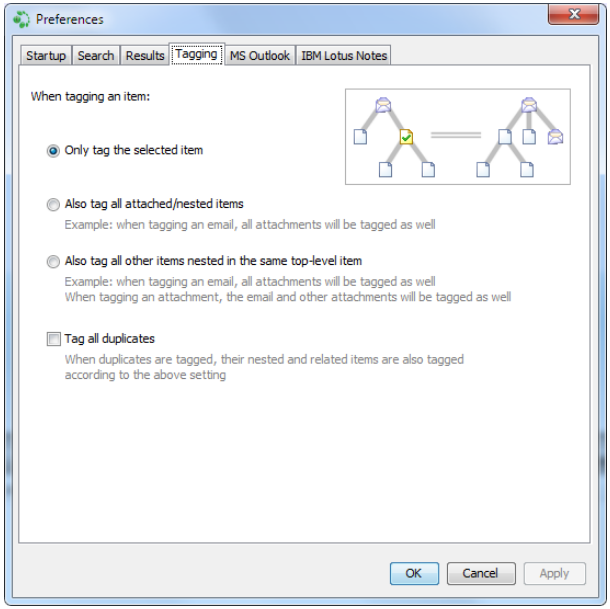
18.4 Tagging

When tagging items, the policy of your investigation may be that some related items should be tagged as well, e.g. tagging items in a mail as privileged may require that all other items in that same mail are also tagged as privileged. The settings in this tab can make that happen automatically.

The three radio buttons specify how other items in the hierarchy need to be handled:

- *Only tag the selected item* is self-explanatory.
- *Also tag all attached/nested items* results in all attached or nested items being tagged with the same tag as well. This works recursively, i.e. all children in the hierarchy are tagged.
- *Also tag all other items nested in the same top-level item* means that everything from the top-level mail down to the most deeply nested child gets the tag.

In addition to these three settings, you can specify that all duplicates should also be tagged. When this setting is switched on, all items in the case with



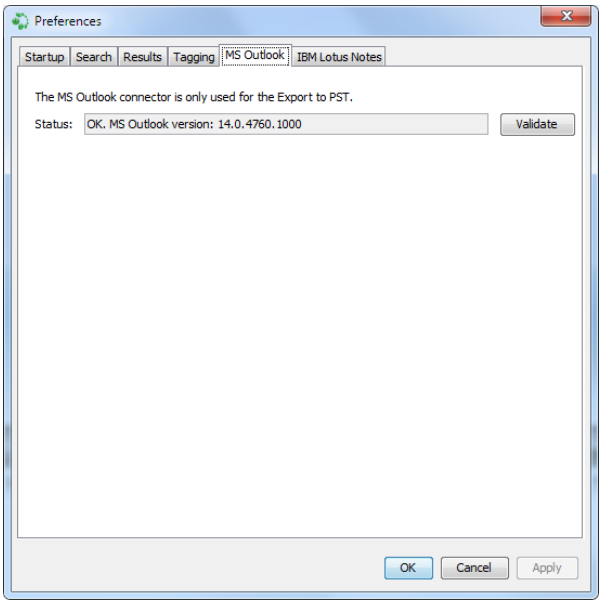
the same MD5 or message hash will inherit the tag. Furthermore, their children or siblings may also be tagged automatically, based on the setting described above.

The preferences tab with the tagging options can also available by opened by clicking the Tag Preferences button when creating a new tag. This dialog will also let you override the settings for the tag currently being set.

18.5 MS Outlook

Click Validate to ensure that Intella can locate the Outlook program files on the system. This is necessary for the ability to export to PST files. The status is shown in the (non-editable) field.

If validation fails, please consult your system administrator to make sure that MS Outlook is installed correctly.



18.6 IBM Lotus Notes

Click Validate to ensure that Intella can locate the Lotus Notes program files on the system. The status is shown in the (non-editable) field.

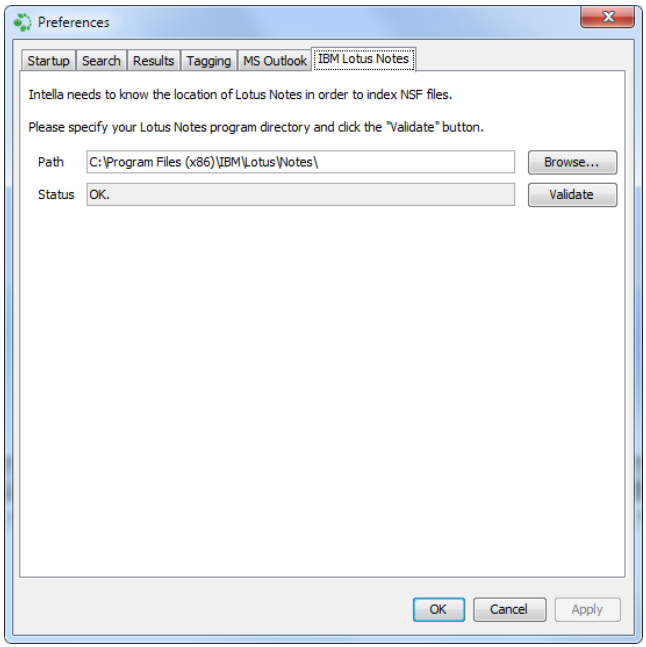
If validation fails, click the Browse button, select the path to the Lotus Notes folder in the file chooser and click Apply.

Tip: The default installation directories for Lotus Notes is

```
C:\Program Files\IBM\Lotus\Notes
```

or on 64-bit systems

```
C:\Program Files (x86)\IBM\Lotus\Notes
```



19 Menu, mouse, and keyboard shortcuts

19.1 Main Menu

19.1.1 File

- Preferences...
  Open the Preferences dialog (see Preferences)

- Exit (Ctrl+Q)
  Exit the application

19.1.2 Sources

- Re-index (CTRL+R)
  Recreate all indexes from scratch (after user confirmation).

- Add New... (Ctrl+N)
  Add a new source to be indexed by Intella.

- Edit Sources... (Ctrl+E)
  Open the Edit sources dialog box.
  For a detailed explanation of the source operations, please see chapter 9 Sources.

- Edit Evidence Paths...
  Open the Attach Evidence dialog.
  For more information see paragraph 7.2: Evidence paths.

19.1.3 View

- Cluster Map

    - Animate changes
      Turn cluster map animation on or off
      (see also: Preferences)

    - Scale to Fit Window
      Turn cluster map size scaling on or off
      (see also: Preferences)

- Details
    - Table
      Switch the Details panel view into Table Mode.

    - List
      Switch the Details panel view into List Mode.

    - Thumbnail
      Switch the Details panel view into Thumbnail Mode.

    - Timeline
      Switch the Details panel view into Timeline Mode.

- Close all previews (Ctrl+Shift+W)
  Closes all open preview windows

- Full screen
  Toggle full-screen mode

19.1.4 Export

- Cluster Map...
  You can export current cluster map graph as a PNG image, HTML, or XML image map (to publish the map on a web page). In the wizard dialog, select desired export format and enter a file name.

- Timeline
  Export the timeline as a PNG image. Choose a file name and folder in the dialog.

- Terms
  Export all terms in the case. When the results table shows a list of results, exporting of the terms of these items is also possible.

- Result...
  Export a single result to a desired location.

- Result List...
  Opens the export dialog to let you export the currently selected results.

19.1.5 Team

- Set Work Folder... *(TEAM Reviewer and TEAM Manager)*
  Open the dialog to set the location (folder) where the Intella work reports will be stored. Select a folder in the dialog and click Select folder. The default TEAM work folder is C:\Users\USER\Desktop.

- Set User name... *(TEAM Reviewer and TEAM Manager)*
  Open the dialog to set the name of the person that is doing the investigation. This will be used in the work reports. Enter the name in the box and click OK.

- Export Work Report... *(Ctrl+W, TEAM Reviewer and TEAM Manager)*
  Open the dialog to export an Intella work report file (.iwr extension) to the work folder.

- Open CSV exports... *(TEAM Reviewer and TEAM Manager)*
  Open the dialog to open CSV files that were created together with a work report. Select the CSV file and click Open.

Note: The CSV file will be opened in the application that is linked to the CSV file type by your operating system. For example: MS Excel or OpenOffice Calc.

- Import Work Report... *(Ctrl+I, TEAM Manager only)*
  Open the dialog to import an Intella work report. Select an Intella work report file (.iwr extension) and click Open.

- Work Reports History...*(TEAM Manager only)*
  Open the dialog that shows the list of work reports that were imported to this case. Every entry in the list has the investigator name, the creation date of the Intella work report and the import date.

  To delete a selected work report from you case, click Remove Work Report contents in the Work Reports History dialog. You are asked to confirm since this operation cannot be undone.

19.1.6 Help

- Help Topics (F1)

- Open Log Folder
  Opens the folder where Intella stores logging information.

- About Intella
  Shows a dialog with three tabs. (1) The first tab contains the version number of Intella. (2) The second tab contains system information. (3) The third tab shows license information such as ID, type and restrictions.

19.2 Mouse actions

19.2.1 Table and thumbnail view

- Click and drag
  Select multiple items

- Ctrl+click
  Select/deselect items

- Double click on item
  Opens item in previewer window

- Right click on item
  Opens the popup or context menu

19.2.2 Timeline

- Click on email
  Select an email

- Double click on email
  Opens email in previewer

- Right click on email
  Opens the popup or context menu

19.2.3 Cluster Map panel

- Click on cluster or on label
  Select a cluster or a results set

- Click and drag
  Move cluster to reorganize map

- Right click on cluster, label or on the selections panel
  Opens the popup or context menu

19.3 Keyboard shortcuts

19.3.1 Main window

- Ctrl+R
  Re-index all sources

- Ctrl+N
  Add new source

- Ctrl+E
  Edit sources

- Ctrl+Q
  Exit the application

- Ctrl+W
  Export work report (TEAM Manager and TEAM Reviewer)

- Ctrl+I
  Import work report (TEAM Manager only)

- Ctrl+Shift+W
  Closes all open preview windows

- F1
  Open Intella help file (requires PDF-viewer, like Adobe Acrobat)

- Spacebar (in thumbnail view)
  Flag selected item

- Ctrl+A
  Select all items or text

19.3.2 Previewer window

- Alt+Right Arrow
  Move to next item

- Alt+Left Arrow
  Move to previous item

- Ctrl+C
  Copy selected text

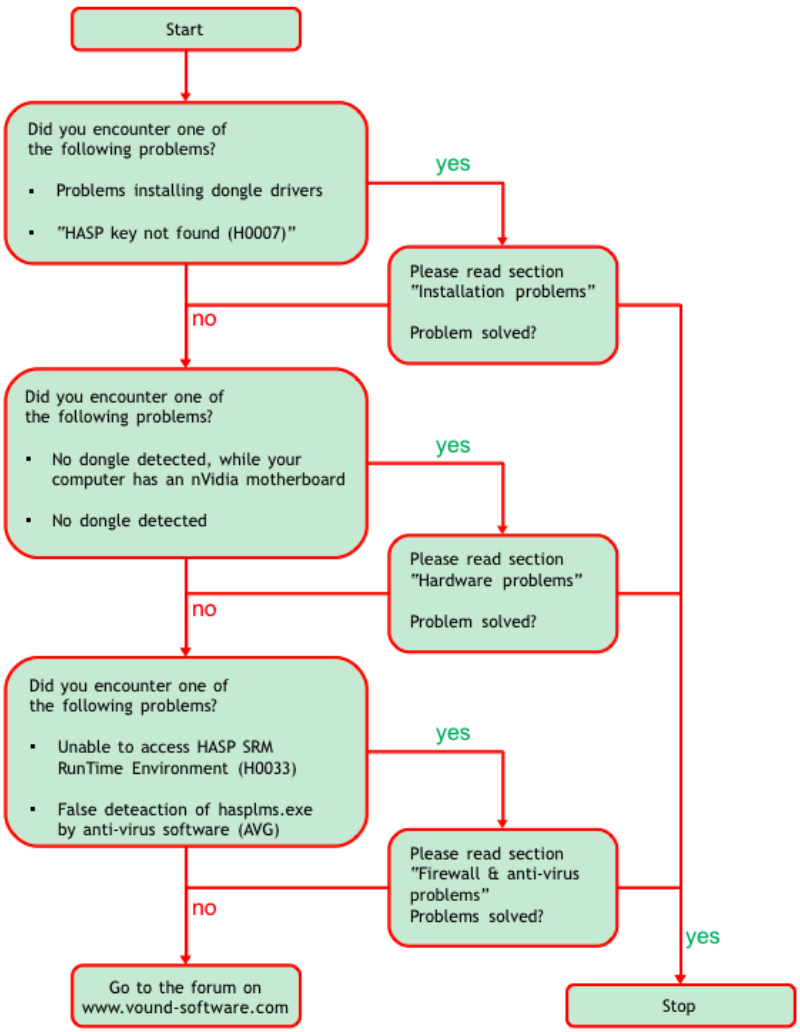
- Ctrl+V
  Paste copied text

- Ctrl+A
  Select all text

- Ctrl+1, Ctrl+2, or Ctrl+3
  Tag an item with the tag assigned to button 1, 2 or, 3 in the previewer

20 Appendix I. HASP problem resolution

20.1 Problem flowchart



20.2 Problems and solutions

20.3 Installation problems

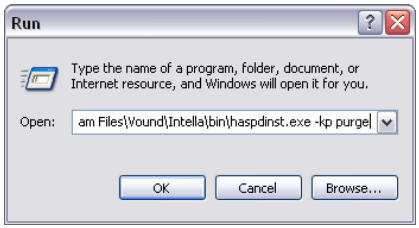
20.3.1 HASP dongle drivers do not install

Problem: You are not able to install the HL Key (dongle) drivers.

Cause: Presence of older HASP HL key drivers installed on the machine

Solution: Uninstall the older drivers.

1. Click Start > Run or click the Windows key + R
2. Enter `C:\Program Files\Vound\Intella\bin\haspdinst.exe -kp purge` and click OK.
3. Wait for message that operation was successful.



Caveat: These steps uninstall ALL other HASP drivers. Make sure you have no other HASP dongle that requires an older driver. Install the latest driver.

20.3.2 HASP dongle not found

Problem: The following message is triggered *"HASP key not found (H0007)"*

Possible cause 1: The HASP dongle LED is not lit. The dongle is not connected or not properly connected to the USB port.

Solution

1. Disconnect, pause a few seconds, then reconnect. If the LED lights up, the application should be able to access the dongle. You may need to wait a few seconds for the dongle to be completely installed by the operating system.

2. The required HASP HL key drivers are not installed. If you are running HASP SRM on a Windows platform, check for an entry for HASP SRM in the Device Manager utility. If there is no entry, you must install the drivers.
3. Check if the USB port is functioning correctly. Disconnect all other USB devices from their respective ports. Connect the HASP dongle to a different USB port. Try using a different USB device in the port from which the dongle was not accessible to test if the port is actually working.

Possible cause 2: HASP License Manager Service is not running.

Solution

1. Check if the HASP License Manager Service is running by opening a Command Prompt (Start > All Programs > Accessories > Command Prompt)
2. Enter: `sc query hasplms`
3. Check the result. It should show like this...

```
SERVICE_NAME: hasplms
TYPE : 10 WIN32_OWN_PROCESS
STATE : 4 RUNNING
(STOPPABLE,NOT_PAUSABLE ,IGNORES_SHUTDOWN)
WIN32_EXIT_CODE : 0 (0x0)
SERVICE_EXIT_CODE : 0 (0x0)
CHECKPOINT : 0x0
WAIT_HINT : 0x0
```

If you see RUNNING the hasplms is running.

20.4 Hardware problems

20.4.1 No dongle detected

Problem: The computer does not detect the dongle. There are several potential causes, listed below.

*Cause 1:*Conflict with other USB devices
On occasion, the presence of other USB devices may cause problems with the HASP dongle.

Solution: Remove conflicting USB device/devices

*Cause 2:*Incorrect device driver installed
The HASP dongle may not function if an incorrect version driver is installed.

Solution: see section Installation problems, HASP dongle drivers do not install.

*Cause 3:*USB port is defective or HASP dongle not properly inserted

Solution: Check that the LED light is lit on the dongle. If not, remove and reinsert. Wait for the operating system to detect the dongle. If it still does not light up, try another USB port or use a USB hub.

*Cause 4:*Faulty dongle
On rare occasions one may get a faulty dongle. The dongle neither lights nor is detected in Device Manager, even with proper driver installed. Request a replacement.

20.5 Firewall & anti-virus problems

20.5.1 Unable to access HASP SRM RunTime Environment (H0033)

Problem:
The error message: "Unable to access HASP SRM RunTime Environment (H0033)" might be caused by too restrictive firewall settings.

Possible causes:

- `C:\WINDOWS\system32\hasplms.exe` is blocked by firewall or antivirus application.
- Port 1947 is blocked by a firewall application.

- HASP License Manager Service is stopped.

Preliminary test:

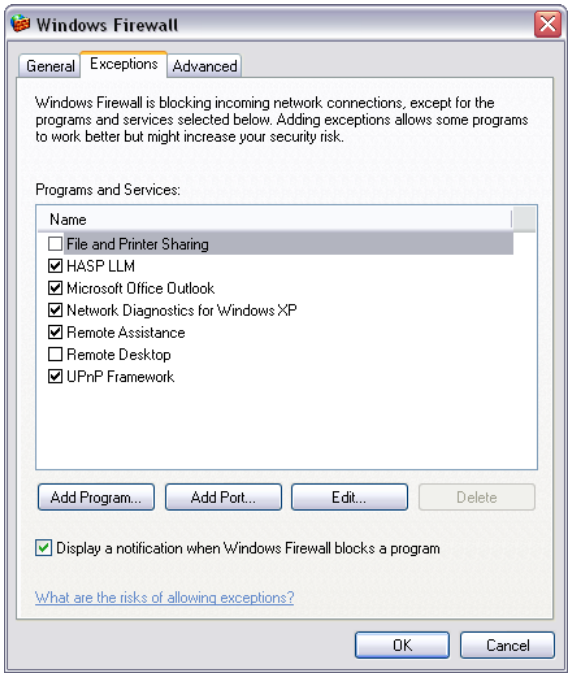
1. Disable all antivirus and firewall applications. Note that some applications such as Norton, McAfee, and AVG have both antivirus and firewall settings that may need to be individually disabled.
2. If the HASP License Manager Control Center does not appear in the browser at `http://localhost:1947` then we know that the anti-virus or firewall application will have to be configured.
3. If the Control Center still does not appear, check for other firewall or antivirus applications that may be running and disable them or turn them off.

Solution:

1. Add `C:\WINDOWS\system32\hasplms.exe` in the Exception list of the antivirus and firewall application
2. Add port 1947 to the Exception list
3. Restart the HASP License Manager Service (Control Panel > Administrative Tools > Services)

Important: You must perform an installation "Reinstall" of Intella as the antivirus software may have blocked components during the first install.

Example of a firewall exception:



The following information is adapted from the SafeNet Sentinel HASP knowledgebase.

Message: "Unable to access HASP SRM RunTime Environment (H0033)"

Problem: This error means that there is a communication error between the program and the local license manager. This error can be triggered by a number of causes, including (1) improper installation of the HASP RTE software, (2) personal firewall software blocking communication with the HASP LMS service, or (3) other software using the same port that the HASP License Manager uses (i.e. port 1947).

Solution: To troubleshooting the error follow the steps below until the cause for the error is found:

1. Open a web browser and connect to `http://localhost:1947`.

This is the HASP SRM Admin Control Center. If it's possible to connect to this page, then the HASP SRM Runtime is installed properly. The problem lies elsewhere and you can disregard the rest of this document.

If you get a message *Page cannot be displayed* then it's possible that HASP SRM Runtime is not installed (go to step 2) or blocked (go to step 3 and 4).

2. Go to Start > Run, enter `services.msc` and click OK.

   The list is alphabetical. Search for HASP License Manager in the table and then check if its status is “Started”

   If this entry is not listed, then the HASP SRM Runtime is not installed. Please reinstall it.

   If the status is not “Started” check the event log for entries relating to the HASP License Manager service that will give an error message and further diagnostic information.

3. Check your personal firewall software. There are many types of personal firewall software including Norton Internet Security (the Firewall is one component of this software), ZoneAlarm and others.

   By default most personal firewall software will request permission to allow access for the HASP License Manager the first time it is run. If access is allowed there should be no problems.

   If access is denied you will encounter communication problems. To resolve such problems either disable the firewall completely (Note: this option has risks. Please contact your firewall vendor for details) or create a rule or exception in the firewall to allow the HASP License Manager communication. If there is an option to

create a rule/exception based on a port number, allow port 1947.

As there are many personal firewall products on the market it is not possible to list all the ways to configure each piece of software here. Please contact your firewall vendor for details on how to create exceptions or rules as detailed above.

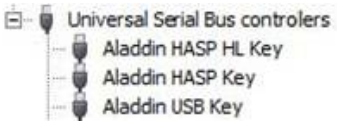
4. Check that there aren't any applications that use HASP registered port (Port 1947). If you find such a program, disable it and run the HASP application again.

20.6 Normal operation

Dongle installation

Intella is shipped with the latest SafeNet HASP dongles. Intella is packaged with the SafeNet HASP RTE installer.

When correctly installed, the Windows Device Manager reports three items in the "Universal Serial Bus controllers" section:



- SafeNet HASP HL Key
- SafeNet HASP Key
- SafeNet USB Key.

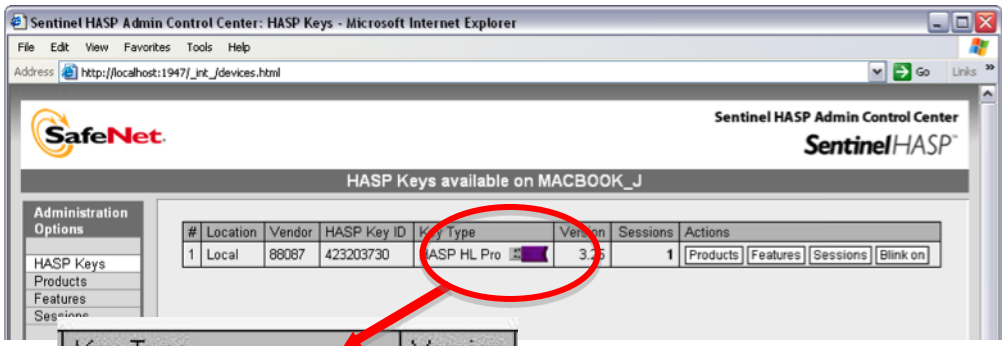
When incorrectly or incompletely installed, warning icons appear on the device.

HASP License Manager Service

The HASP installer includes the HASP License Manager application that runs as a system service:

```
C:\WINDOWS\system32\hasplms.exe
```

The HASP License Manager Service `hasplms.exe` must be running to allow Intella to open. When this application is running you should be able to load the HASP License Manager Admin Control Center by entering `http://localhost:1947` in an internet browser.

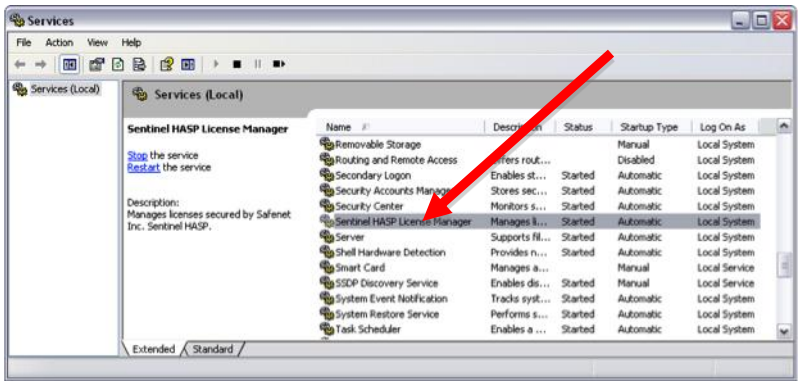


HASP SL is the trial version license.

HASP HL will only show when the dongle is plugged in.

Windows system services

A good indication that the License Manager Service is running properly, is that the entry is flagged as “Started” in the table of Windows system services:



20.7 Installation flowchart