

File Classifier Guide

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Contents

1	Introduction.....	3
2	Installation and Deployment options.....	3
2.1	Installation Options	4
	2.1.1 <i>Icon Overlay Limits</i>	4
2.2	Policy control	5
2.3	Auditing Options	5
3	Using File Classifier	7
3.1	Label Selection	7
	3.1.1 <i>Single Click label selection</i>	9
	3.1.2 <i>Displaying selector values in the context menu (not using single click)</i>	9
	3.1.3 <i>Processing Multiple Files</i>	10
	3.1.3.1 <i>Limiting the number of files that may be classified</i>	11
	3.1.4 <i>Changing the Label</i>	11
3.2	Icon Overlays.....	11
3.3	Infotips	12
3.4	File Classifier Rules.....	12
4	Interworking with Classifier applications	12
5	Additional Operational Notes	14

1 INTRODUCTION

This document summarises the features supported by File Classifier.

File Classifier extends the capability of Windows Explorer to allow users to write 'Classifications' to files by using a Windows Explorer context menu  **Classify** action.

Note: Throughout this document, Administration Guide means Administration Guide or Administration Server Guide depending upon whether you are using the Administration Console or Administration Server environment.

The main product features are:

1. Context menu action to invoke the Classify action.
2. Control user labelling choices by defining File Classifier Rules governing Mandatory Selectors and Label Change. These rules are established using Classifier Administration.
3. Apply a Classifier Label to one or more files selected using Windows Explorer. See [Interworking with Classifier Applications](#) for details of how the various file types are handled.
4. Context menu access to Single Click label selection (if configured in the current Classifier policy).
5. Apply an Icon overlay to each labelled file.
6. The Icon overlay applied can reflect the 'Classification' applied.
7. Show an "infotip" when hovering over a labelled file.

Note: For many file types (e.g. MS Office), File Classifier uses the Classifier Plugins to update the actual object in a consistent manner. For files not supported by Plugins (e.g. Text files), the label can only be stored in an "Alternate Data Stream (ADS)" (See Administration Guide → Appendix – Label Propagation Mechanisms for further details of the file types supported).

2 INSTALLATION AND DEPLOYMENT OPTIONS

The product is installed into the user environment as follows:

- From the Classifier Base Bundle open **File Classifier\x64** or **x86** folder corresponding to your windows operating system (x64 or x86) and run **Setup.exe**.
- Follow the wizard instruction steps to complete the installation.
- You will have to Logoff and Logon for the features to be fully available.

The product can be deployed across a system using the usual Group Policy mechanisms.

From release 3.10, File Classifier can retrieve its configuration information via Classifier Management Agent - subject to the UseManagementAgent registry setting (Administration Guide > Configuration Deployment > Label Configuration Registry Settings).



File Classifier is a separate product within the Classifier Family and requires that a File Classifier licence has been applied to the Classifier Configuration.

Note: Explorer.exe stays running in the background (using the Classifier Configuration available at the start) even if the user closes the Explorer window. As a consequence:

- Changes made to the published Classifier Configuration will only be picked up by File Classifier at the next login.
- Test Mode / Test Publications cannot be used with File Classifier.

2.1 Installation Options

2.1.1 Icon Overlay Limits

File Classifier can apply an Icon Overlay  in Explorer to indicate that the file has been 'Classified' by Classifier. File Classifier can also vary the Overlay used (Colour ) to reflect the value of the first 'Classification' element by using the colour associated with the relevant 'Classification' element value.

Thus, File Classifier may require one Overlay Icon per 'Classification' value configured plus one for the default Overlay.

However, the number of Icon Overlays supported by the system is strictly limited (but no warnings are generated if the limit is exceeded), and other installed applications may also have registered one or more overlays.

The effects are unpredictable if more Overlays are registered than the system supports - File Classifier Icon Overlays may not operate as expected, or the operation of other applications with overlays registered may be disrupted.

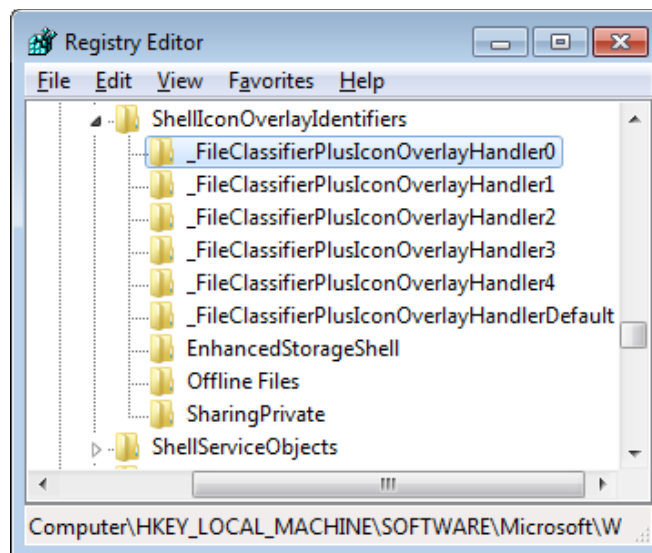
By default, Classifier instantiates six Overlays (5 + 1 for the default). The Icon Overlays currently registered can be found under:

HKLM\Software\Microsoft\Windows\CurrentVersion\Explorer\ ShellIconOverlayIdentifiers

And for 64-bit environments also under:

HKLM\Software\Wow6432Node\Microsoft\Windows\CurrentVersion\Explorer\ ShellIconOverlayIdentifiers

For example:




Icon Overlay Registry entries


File Classifier provides additional mechanisms that may be useful.

- An install time option (OVERLAYCOUNT) is provided to set the number of additional overlays (0 to 9 or NONE) to be registered. For example, if your policy only has three values for the first selector, then set the OVERLAYCOUNT to 3:



msiexec /i FileClassifier<32/64>.msi OVERLAYCOUNT=3

- 0 Only the default overlay () is registered which will be displayed for any file classified by File Classifier.
- N (1-9) The number of additional Overlays to be registered. If the OVERLAYCOUNT option is omitted, then the default value is 5.
- NONE No overlay icons are registered or used (not even the default overlay).

Note: You may wish to manage the Icon Overlays registered for other applications using the policy mechanisms described in <http://technet.microsoft.com/en-gb/library/cc753092.aspx>

A Registry setting **UseSingleColour** that can be used to cause File Classifier to only use a single colour (the default ) of the overlay. Note that this option will still leave the relevant number of Overlays registered, but it can be useful as an interim change prior to using the OVERLAYCOUNT installation option. The default (if the setting is not defined) is that File Classifier will attempt to use all multiple overlays to reflect the colours associated with the first selector value.

The **UseSingleColour** setting is defined within the **FileClassifierConfig.ADM** and **FileClassifierConfigPerUser.ADM** files installed as part of the **Classifier Administration** product. The entry is described in [Administration Guide > Configuration Deployment > File Classifier Registry settings](#). Classifier searches for Registry entries as described in [Administration Guide> Configuration Deployment > Configuration Registry Search Algorithm](#).

You can remove the 'C' from the icon overlay image(s) (e.g.  rather than ) by Disabling the [Administration Guide→ Configuration Settings → Classifier Application Settings → File Classifier Settings → Show Classifier 'C' on icon overlay setting](#).

Note: To uninstall File Classifier you will have to Logoff and on.

2.2 Policy control

By default, File Classifier will operate using the Classifier Policy configured for the current user. There may be circumstances where you may wish to constrain the users using File Classifier in some way.

Consider a system that includes a selector that is only used to trigger a rule to apply a marking. The File Classifier environment has no mechanism to apply such a marking, so it may be helpful to your users to remove that selector from the label selection interface when using File Classifier. You could establish a policy that removed this selector, and then ensure that this policy is used by File Classifier rather than the standard user assigned policy.

You force File Classifier to use a specific Classifier Policy using the **File Classifier Policy Name** group policy setting as described in [Administration Guide> Configuration Deployment > Label Configuration Registry settings](#). Classifier searches for Registry entries as described in [Administration Guide> Configuration Deployment > Configuration Registry Search Algorithm](#).

File Classifier specific rules may be defined within a policy (see [File Classifier Rules](#)).


2.3 Auditing Options

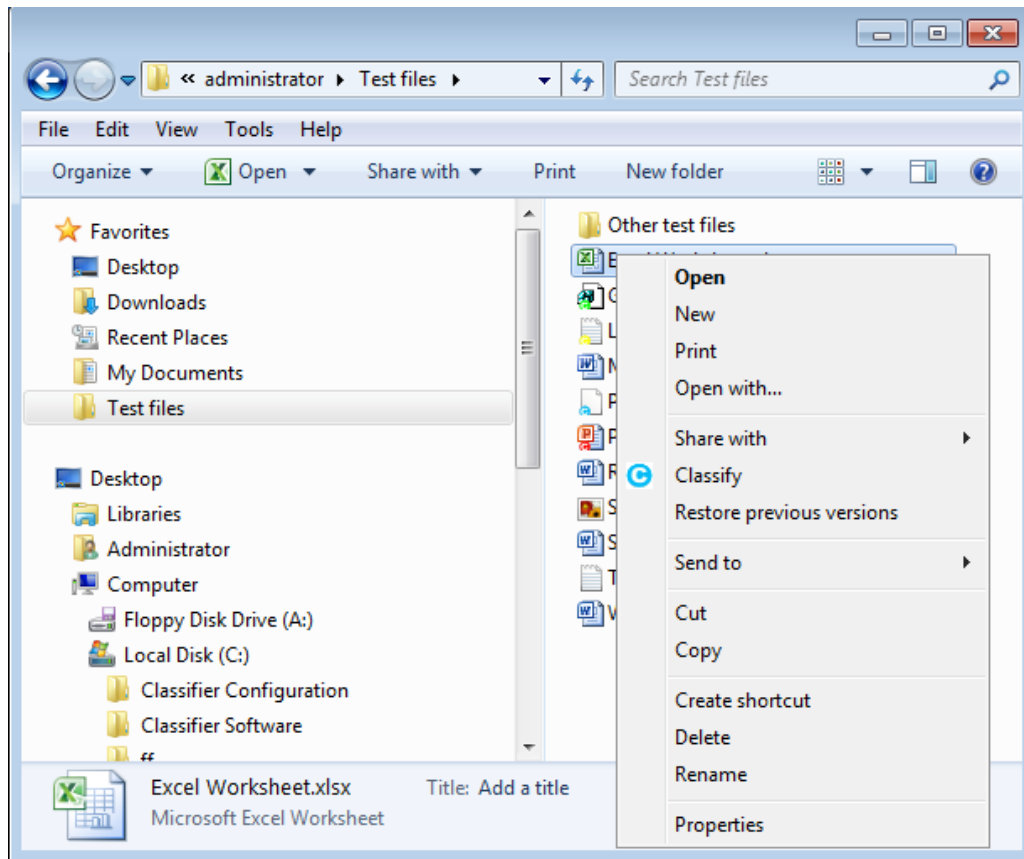
File Classifier auditing is controlled via the following [Administration Guide> Global Settings > Auditing](#) settings:

- File label addition
- File label removal
- File label change

3 USING FILE CLASSIFIER


3.1 Label Selection

Once the product is installed selecting the context menu for a file or files from within Windows Explorer will present an additional  **Classify** action as in the example below.

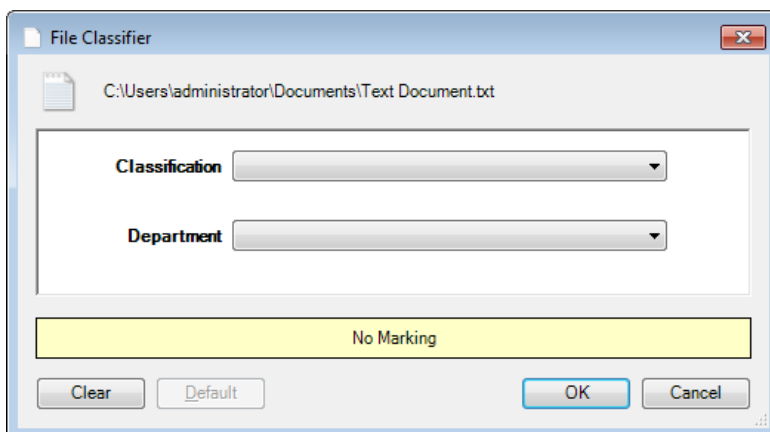


Classify action

Note: On operating systems prior to Windows 7 (and Server 2008 R2), the Classify context menu action will become the default action for file types that don't have their own default menu action. This effect is outside the control of File Classifier on those operating systems. Similarly, the position of the Classify action within the context menu varies between operating systems and may appear without the Classifier icon at the start.

Choosing the  **Classify** action launches the standard Classifier Label selection dialog allowing the user to modify the label value of the selected file(s) as per the example below. If a single file is selected the dialog will show any current label value.

The label dialog presents the choices defined by the current Classifier Policy.



Choose Label

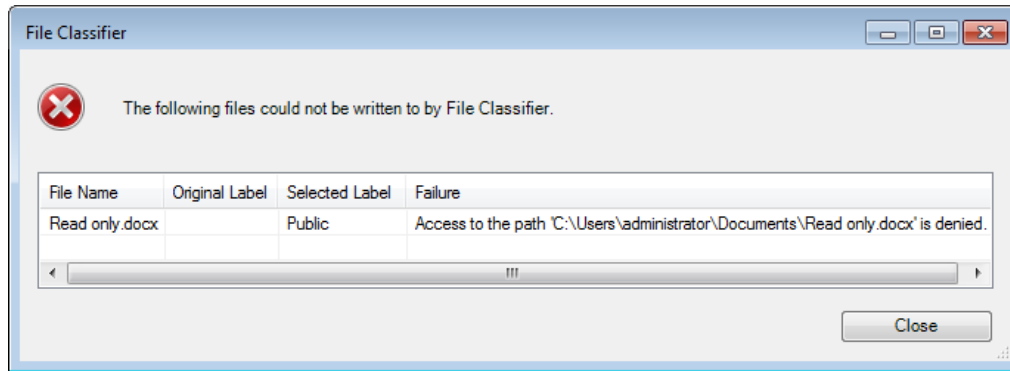
Simply select the required values and press **OK**. This will apply the label to the selected item(s) and close the dialog.

Limitations

You can Classify any type of file subject to the following limitations:

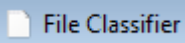
- **Visio** files cannot generally be labelled using File Classifier – they must be labelled using Microsoft Visio. However, the [Administration Guide](#) → General Setting “**Use Alternate Data Stream (ADS) for Visio files**” can be used if required. This specific setting takes precedence over the [Administration Guide](#) → Applications Settings → File Classifier “**Use Alternate Data Stream (ADS) marking**” setting.
- **CAD files cannot be labelled using File Classifier.**
- If any of the following conditions apply, then the operation will fail:
 - A file is **Read Only**.
 - A file is currently **open**.
 - A file is not what it seems (e.g. is **masquerading** - its file extension does not match its internal structure).
 - The file is a zero-length Word document established using **New / Microsoft Office Word document** in Explorer. Note that this can also apply to **New / Microsoft PowerPoint presentations** created via Explorer in some environments.
 - In some environments (e.g. Vista with Office 2007) an empty **New / Microsoft PowerPoint presentation** or **New/ Microsoft Excel Worksheet** created via Explorer can appear to have been classified correctly using File Classifier; but when the file is opened with its relevant application no Classification value appears.
 - An attempt is made to label an image file when a ‘custom document property’ defined in doclabeller2, or as a Label location contains ‘white space’ (this is a limitation of the plug-in that supports these operations).
 - A PDF file is configured to protect metadata from programmatic access.
 - Some PDF viewers set a ‘full lock’ on the file (e.g. within a mail of explorer preview pane). In such circumstances File Classifier will be unable to label the file until the preview is closed.

A dialog will be presented indicating the cause of the failure e.g.:



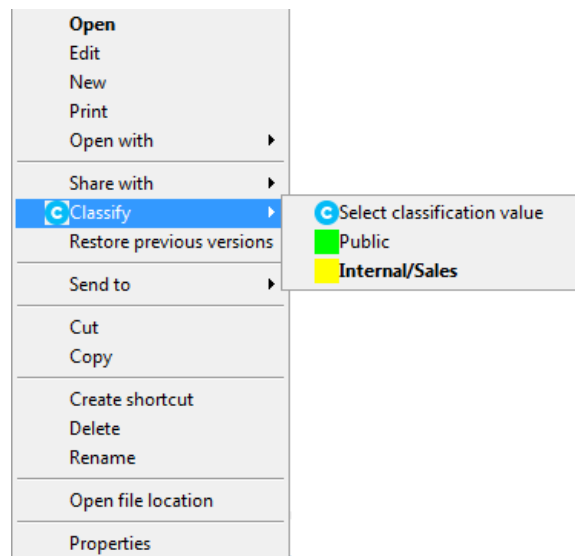
Failure to apply a label

- File Classifier processes files in one of three ways as described in [Interworking with Classifier Applications](#) and in [Alternate Date Stream Limitations](#).

Information on the Classifier Configuration in use, the product version and licence information (as described in the [Administration Guide > About Boldon James Classifier](#)) is available by selecting the **About...** action found in the system menu () on the Choose Label dialog shown above.


3.1.1 Single Click label selection

If **Single-Click with pre-defined labels** is configured for the current Classifier policy, then the single-click options are available via the Classify action, with the current value in **bold** e.g.

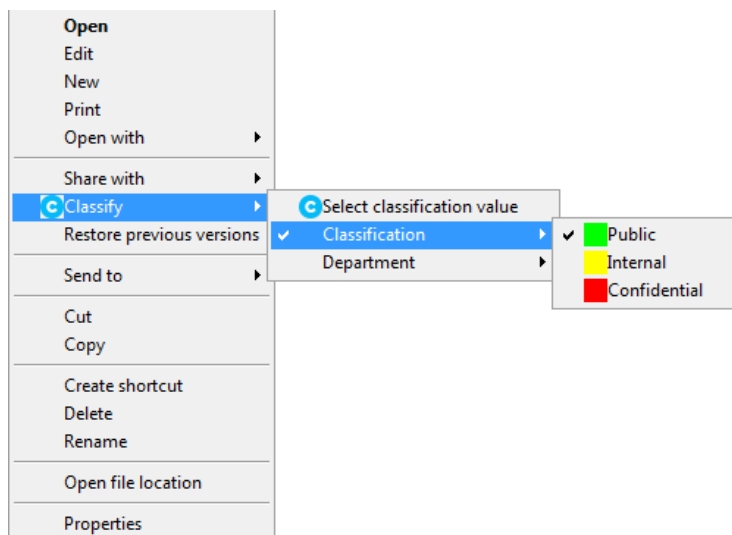


Single Click context menu entries

3.1.2 Displaying selector values in the context menu (not using single click)

By default, only the  **Classify** action is displayed in the context menu when Single Click is not in use. Optionally, you can get the selector values and current classification displayed in the context menu using the [Administration Guide](#) → [Configuration Settings](#) → [File Classifier Settings](#) → **Display selector values in context menu** setting. This only operates when a single file is selected.

Note: This only works for selector types that are designated for display in the Ribbon in the current policy ([Administration Guide](#) → {Configuration} → Policies → {Policy} → Set Selectors → Selectors in policy → Ribbon).

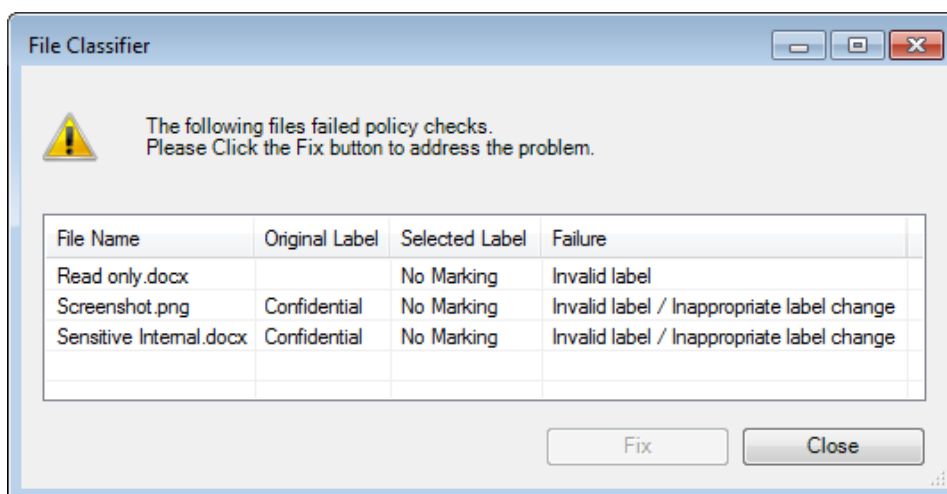


Context menu showing selectors

3.1.3 Processing Multiple Files

You can select multiple files from within a folder, and the selected label will be applied to all files subject to the following qualifications:

- Folders are silently ignored.
- Shortcuts are silently ignored
- Attempts to label Visio files fail unless [Administration Guide](#) → General Setting “**Use Alternate Data Stream (ADS) for Visio files**” is enabled.
- For file types that are not supported by the Classifier Plugins (e.g. Text files): If the [Administration Guide](#) → Applications Settings → File Classifier “**Use Alternate Data Stream (ADS) marking**” setting is disabled, then such files will be silently ignored.
- The limitations described in [Label Selection](#) above apply.
- All files are processed with any ‘errors’ displayed at the end of the process.
- Any policy ‘errors’ are shown first (e.g. Mandatory selectors not defined or Label Change issues):

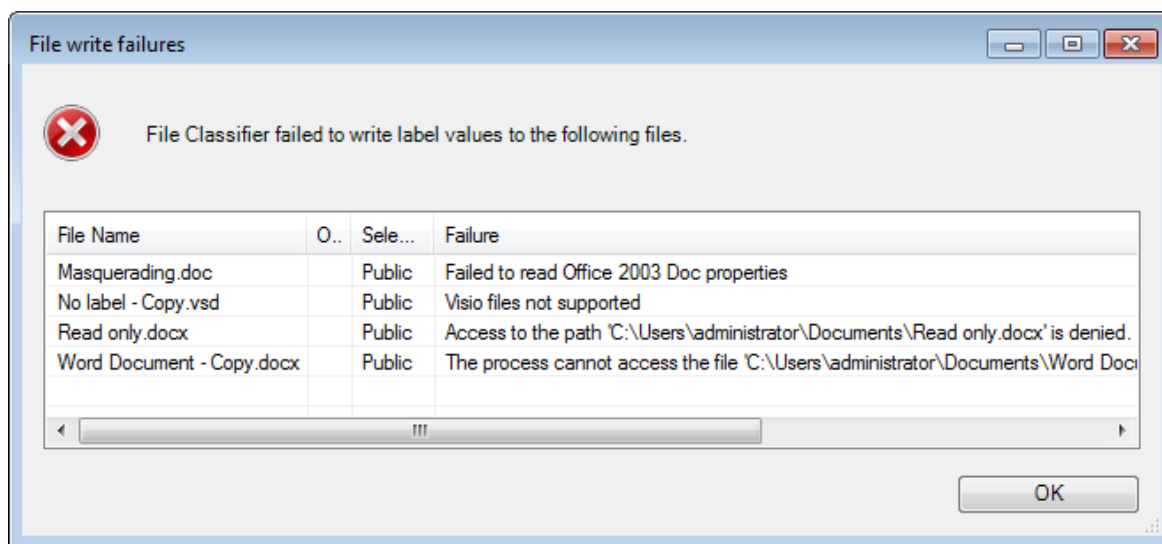


Policy Check dialog

The failure column shows the reason(s) for failure. The text presented is the **Title** of the message (User message library) configured for the rule that is failing the policy check (e.g. Invalid label in the example above). If multiple policy failures apply, they are separated by a “/”.

Selecting one item from the list enables the **Fix** button. Pressing **Fix** will present a relevant dialog (e.g. Label selection). As items are fixed they are removed from the list. If you press **Close**, no further action is taken on the files still in the list.

Having addressed policy issues you may then be presented with a list of other outstanding issues as per the example below.



Multiple file label errors

Some of the text that appears in the “Failure” column may not be translated.

3.1.3.1 Limiting the number of files that may be classified

The number of files that a user may Classify at once can be controlled by a Registry setting (**SelectableFilesLimit**). If the setting is not defined, then no limit is applied.

This registry setting is defined within the **FileClassifierConfig.ADM** and **FileClassifierConfigPerUser.ADM** files installed as part of the **Classifier Administration** (Server) product. The keys are described in [Administration Guide > Configuration Deployment > File Classifier Registry settings](#). Classifier searches for Registry entries as described in [Administration Guide > Configuration Deployment > Configuration Registry Search Algorithm](#).

3.1.4 Changing the Label


In general, a label may be changed at any time using File Classifier, subject to any **Check for label change** rules defined.

If you change the label using the primary application (e.g. Microsoft Word), the icon overlay and ‘infotip’ will be updated automatically by Explorer.

The label can be removed by selecting **Clear** from the Choose label dialog, assuming the configuration allows No label.

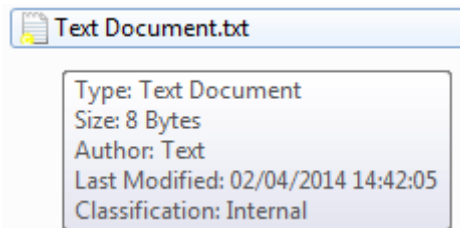
3.2 Icon Overlays

Once an item has been labelled by Classifier, the relevant icon overlay will appear. This overlay may reflect the colour associated with the value of the first selector element as long as this is of type

Single Selection (e.g. Classification). If there is no associated colour, or no suitable value, then the default overlay icon  will appear.

3.3 Infotips

Once an item has been labelled, hovering over the item will display an 'infotip' popup that will include the current label (displayed according to the 'Summary marking' format).



Hover showing Classification: Internal

Note: After changing the classification on an item you may have to move the focus to another item (file / folder) and back, or press F5, before hovering will show the new value.

Note: Infotips are not supported for Visio files unless [Administration Guide](#) → General Setting “Use Alternate Data Stream (ADS) for Visio files” or [Administration Guide](#) → Applications Settings → File Classifier “Use Alternate Data Stream (ADS) marking” setting is Enabled.

Note: Infotips do not appear for CAD .DWG files as an application specific shell extension takes precedence.

3.4 File Classifier Rules

File Classifier supports the following rules that may be defined within the Classifier configuration:

- Check these mandatory selectors
- Check for a label change
- Check with the user
- Check these selectors for expired dates (applicable when using File Classifier to set the Classification).

These are described in in [Administration Guide](#) > [Policies](#) > [Rules supported](#) > [Check rules](#) > [Check mandatory selectors etc.](#)

4 INTERWORKING WITH CLASSIFIER APPLICATIONS

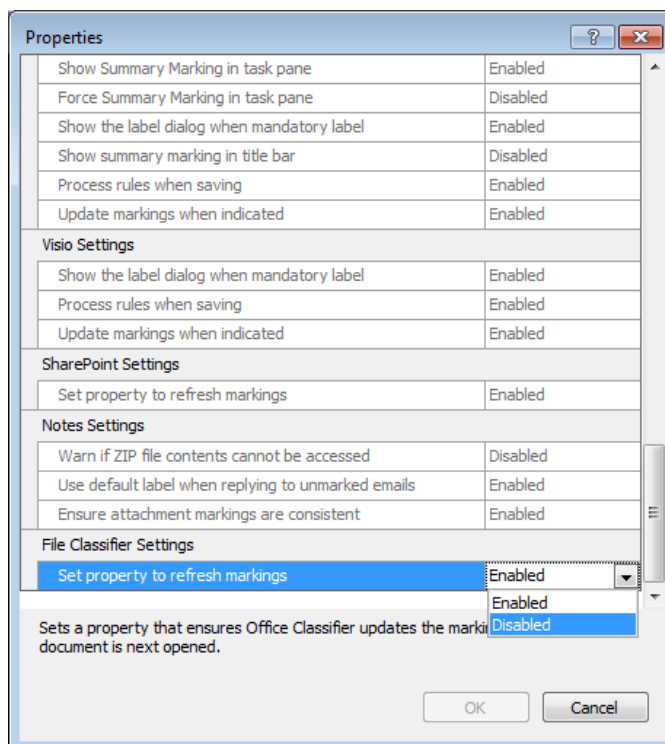
Note: More detailed information on the use of labels by, and propagation of labels between, Classifier applications can be found in [Administration Guide](#) > [Appendix – Label Propagation Mechanisms](#). Key information is summarised below.

- File Classifier uses the same Label information as Office Classifier and CAD Classifier (Classifier 'private' label property and Label Locations) when reading labels from file types supported (e.g. Microsoft Word, Excel, PowerPoint and Project - note **VISIO** files must generally be labelled using the **VISIO** application). Any label set using the **Use Alternate Data Stream (ADS) for Visio files** setting will not be detected by the Classifier Visio extension (and vice-versa).

Using File Classifier to apply a label value to (for example) a Word document will update the Classifier 'private' label property, but consequential effects on Classifier Markings will only be applied the next time the document is opened using the relevant Microsoft Office application.

By default, File Classifier will set a property indicating to Office Classifier that the current Markings may not match the label value. This will cause Office Classifier to automatically update the Markings the next time the document is opened.

This default operation can be modified by setting [Administration Guide](#) > Label Configurations > Configuration Settings > Classifier Application Settings > File Classifier > Set property to refresh markings to Disabled.



Set the property to refresh markings

Note: Markings may be refreshed anyway using the label applied by File Classifier if the document is printed or saved.

- For PDF files and ZIP files, File Classifier applies a BJ Label value to the file (PDF as a custom property / ZIP as the comment). These label values can be accessed by Email Classifier to perform High Water Mark checks for instance.

Note: When File Classifier stores a label on a PDF file, it modifies the file. The effects may vary depending on when and how the PDF was originally written. As a minimum, a Classifier defined custom property is added. For older files, this might indirectly cause insertion of a whole PDF Metadata block, and effectively update the PDF structure to a newer standard. Note that the PDF version and Producer properties are not modified by File Classifier.

- For JPG¹ files, HTML² files and Open Office documents³ (or other types supported subject to the additional configuration of Classifier plug-ins under guidance from Classifier support):

¹ JPG, JPEG and JPE

² HTML and HTM

³ ODF, ODT and ODP

File Classifier applies a BJ Label value as a custom property to the file. These label values can subsequently be accessed by Email Classifier to perform High Water Mark checks for instance.

Note: Support for these file types requires additional configuration of Classifier plug-ins under guidance from Classifier support. Be aware that the plugin for DXF/DWG files only supports reading of BJ Label values.

- VISIO files cannot be labelled using File Classifier, although [Administration Guide](#) → General Setting “**Use Alternate Data Stream (ADS) for Visio files**” can be used if required. This specific setting takes precedence over the [Administration Guide](#) → Applications Settings → File Classifier “**Use Alternate Data Stream (ADS) marking**” setting.
- For other file types (e.g. .TXT) File Classifier stores label information in an NTFS Alternate Stream which is not used by Office, Email Classifier, OWA Classifier or SharePoint Classifier.

Note: You can disable the use of the Alternate Date Stream for unsupported files types (e.g. .TXT) using the [Administration Guide](#) → Configuration Settings → File Classifier Settings → **Use Alternate Data Stream (ADS) marking** setting. If the option is **Disabled**, the Classify action will **not** appear when a single (unsupported) file is selected. If multiple files are selected (mixed supported and unsupported), the unsupported files will be silently skipped.

Alternate Data Stream Limitations:

- Moving a file labelled by Power or File Classifier (but not supported by Office Classifier) to a non NTFS location (e.g. a memory stick) will lose the additional Alternate Data Stream (ADS) information (a warning is presented). The file will then be unlabelled. This also relates to emailing such files, cloud storage, etc.
- Email Classifier will not perform High Water Mark checking on Power and File Classifier labelled files that use the Alternate Stream mechanism, nor include such files in Attachment Lists as the Alternate Stream information is unavailable in that environment.
- Office Classifier will only detect label values stored in standard Office Classifier locations. So for example, opening a .TXT file using Word will not detect any File Classifier Alternate Stream Label and the file will be treated as unlabelled.

5 ADDITIONAL OPERATIONAL NOTES

- 1 Outlook cannot access an alternate data stream label (because it has no route to the source file). So Outlook will not perform high-water mark checking on File Classifier labelled files unless there is also a standard Classifier label value available, and Outlook will not include File Classifier labelled files when constructing Attachment Lists.
- 2 There is no way of displaying the Label value in an Explorer column, but the [Infotips](#) feature will display any classification value.
- 3 Office Classifier will only detect label values stored in standard Classifier locations. So for example, opening a .TXT file using Word will not detect any File Classifier Alternate Data Stream Label and it will therefore treat the file as unlabelled. Office Classifier will detect File Classifier applied labels for Excel, PowerPoint, Project and Word files because File Classifier will apply a Classifier Label.

- 4 Moving a File labelled by File Classifier (but not supported by Office Classifier) to a non NTFS location (e.g. a memory stick) will lose the additional Alternate Stream (ADS) information. The file will then be unlabelled. This also relates to emailing such files, cloud storage, etc.
- 5 File Classifier is licensed, and if the licence expires the Classify action will result in a licence expired dialog. Any existing Label icons applied will remain visible.
- 6 The overlay icon added by File Classifier may remain visible after File Classifier has been uninstalled. A session re-start or even a re-boot may be required to correct the situation.
- 7 In XP environments, the overlay icon added by File Classifier may persist after the label value has been removed (all selectors set to blank). Pressing F5 will usually correct the display.
- 8 If File Classifier displays the overlay icon in explorer (indicating that a file is labelled) but presents no label (all selectors are blank), then this is likely to be because the stored label value cannot be interpreted using the current configuration. This might arise for example after you have changed the Classifier Configuration and deleted a selector value.
- 9 When File Classifier labels a ZIP file it labels the ZIP container file, not any files within the .ZIP. Similarly viewing a label of a .ZIP file using File Classifier takes no notice of any encapsulated documents labelled by the Classifier Client.
- 10 If you change the label of a document (e.g. a Word document) using File Classifier, and then open the document under Office Classifier, the label in various fields (e.g. Header/Footer) will not reflect the changes until you perform an action that will trigger an appropriate refresh of the various fields (e.g. Save).
- 11 The overlay icon may not be visible for files with very long (path) names.
- 12 Installing updates of applications may disturb your environment by re-establishing additional overlay icons after you have 'managed' your [overlay icons](#) to achieve an acceptable operational state.
- 13 **Performance Notes:** When File Classifier is invoked in Windows Explorer to present Icon Overlays indicating the label, File Classifier has to open each item to determine the label, and this can take a noticeable amount of time if large files are involved.

The **Maximum file size for icon overlay (in KB)** setting ([Administration Guide](#) → [Labelling Configurations](#) → [<Configuration>](#) → [Configuration Settings](#) → [Classifier Application Settings](#)) can be used to limit the effects.

The **EnableFileLabelCaching option** ([Administration Guide](#)/ [File Classifier Registry settings](#)) can be used to cause File Classifier to store a copy of the label in an Alternate Data Stream (for **All** file types) facilitating faster access the next time. File Classifier will not change the 'last modified time' when caching label values.

Note: However, in some non-NTFS environments (e.g. 'NetApp ONTAP') the action to preserve 'last modified time' does not work and all files accessed end up with a modified time set to the current date/time.
