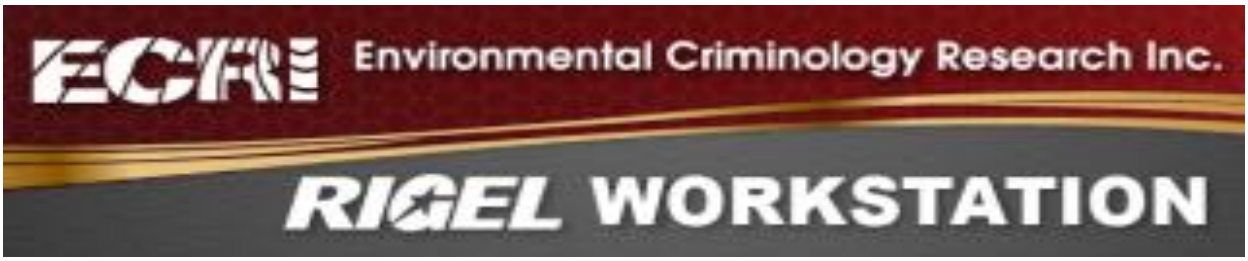


ECRI Announces 2019 Product Releases

ECRI has introduced new versions of the Rigel software for 2019, with important new features as described in this announcement.

ECRI enhances the Rigel software products continuously throughout the year, increasing performance, updating support for existing and new external interfaces, improving the user interface, and fixing any problems discovered. All Rigel products share some common code base, so the applicable improvements are common to all products.

Users have the option to check for updates automatically or manually. Customers on software maintenance can download free updates at any time.

Most minor changes will increment only the software build number that appears in the program About box, but each year the main software version number is incremented to denote more significant changes.

New product version numbers for 2018:

Rigel Workstation 2.5
Rigel Analyst 12.6
Rigel CIW 1.4
Gemini 2.5

For more information, visit http://www.ecricanada.com/products

Or contact: sales@ecricanada.com, Tel: 604-718-2060

What’s new for 2019

Major updates:

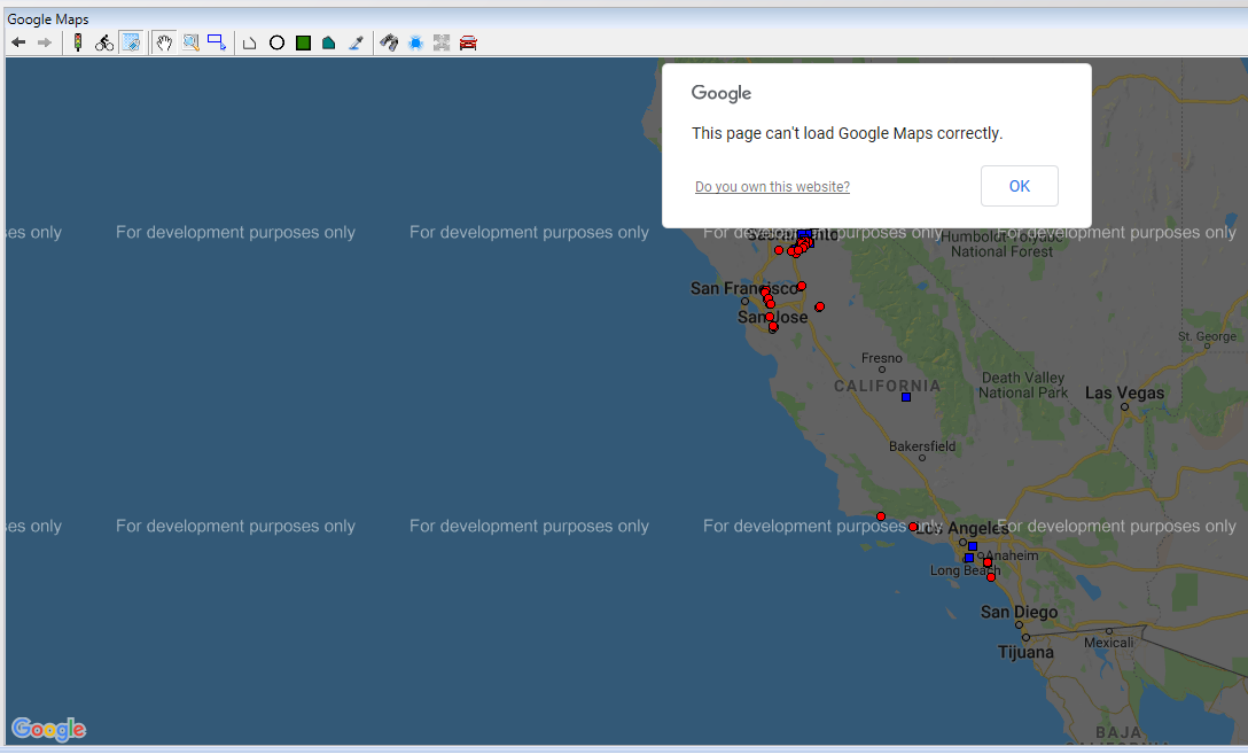
- Google Maps Update
- OpenStreetMaps Map Service
- ESRI ArcGIS Geocoding Service
- Routing Analysis
- Fast Batch Hit Score Analyzer
- Symbology Enhancements
- Crime Type Manager Enhancements
- Case Screen Shot

Each of these is described in more detail below.

As always, there are other minor bug fixes and improvements made throughout the year.

Google Maps Update

In September 2018 Google began enforcing a new paid licensing scheme for Google Maps. A Google account with billing linked to an “API key” is now mandatory to use embedded Google Maps in application programs or on web sites. Since Google did not previously require users of Google Maps to register, they were unable to contact users directly, and the first most users knew of this was when an error message appeared on loading a map:



Rigel has offered the ability to specify a custom Google API key since 2016 (under Tools - Preferences – Map Service – Google Maps – API Key), just in case any users needed to exceed the free limits that Google previously applied. In response to this most recent change by Google, Rigel and ECRI’s associated online services have been updated in several ways:

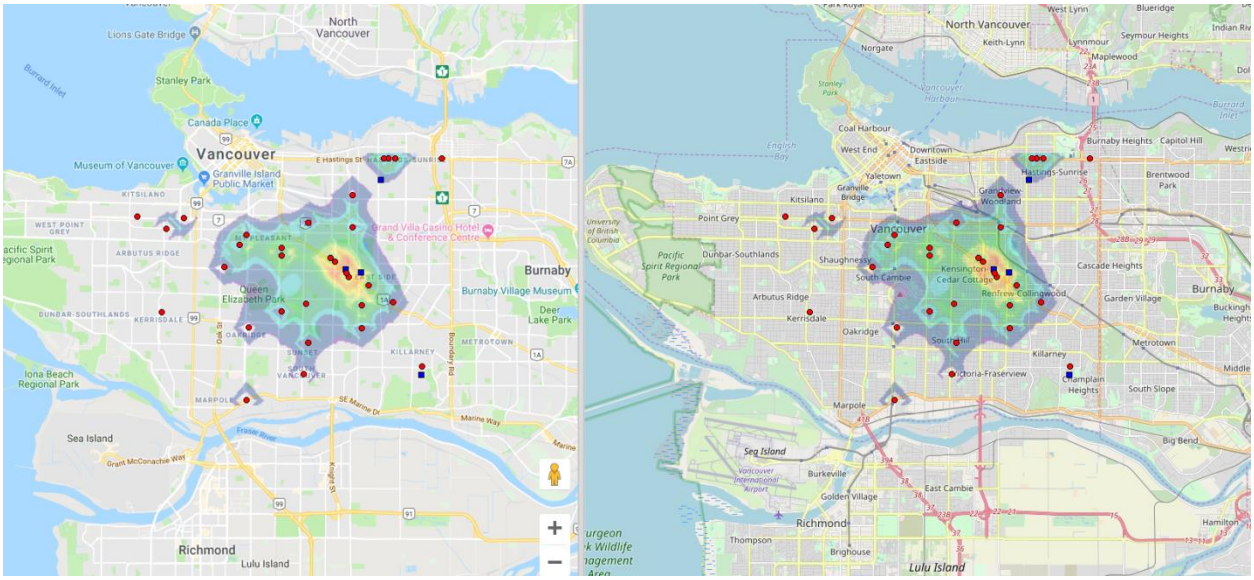
- Rigel now has the ability to obtain a Google API key directly from ECRI’s web server, and ECRI is providing a key free of charge to customers whose Rigel software is on software maintenance.
- With a user-supplied or ECRI-supplied API key, Google Maps functionality is fully enabled for both map views and geocoding, but in view of the very significant increase in Google’s fee structure for geocoding, Rigel now includes some additional checks to prevent accidental over-use. The Google Maps geocoder is automatically disabled unless the user enables it for a specific session, and a warning will appear if the user attempts to import and geocode a large file of

crime and/or suspect sites using the Google Maps geocoder. This is especially important in view of some user experiments involving hundreds of thousands of suspect addresses.

- Rigel now offers OpenStreetMaps as an alternative online map service providing global coverage (see Tools – Preferences – Map Service).
- You can now use both OpenStreetMaps and ESRI's ArcGIS online geocoding service for address geocoding (see Tools – Preferences – Geocoders).
- A workaround has been implemented to allow Google Maps views to load from OpenStreetMaps for users who do not have an API key. The user must still dismiss the pop-up error message from Google. A patched library file is available from ECRI to apply this workaround for users who have an older version of the Rigel software and cannot update.

OpenStreetMaps Map Service

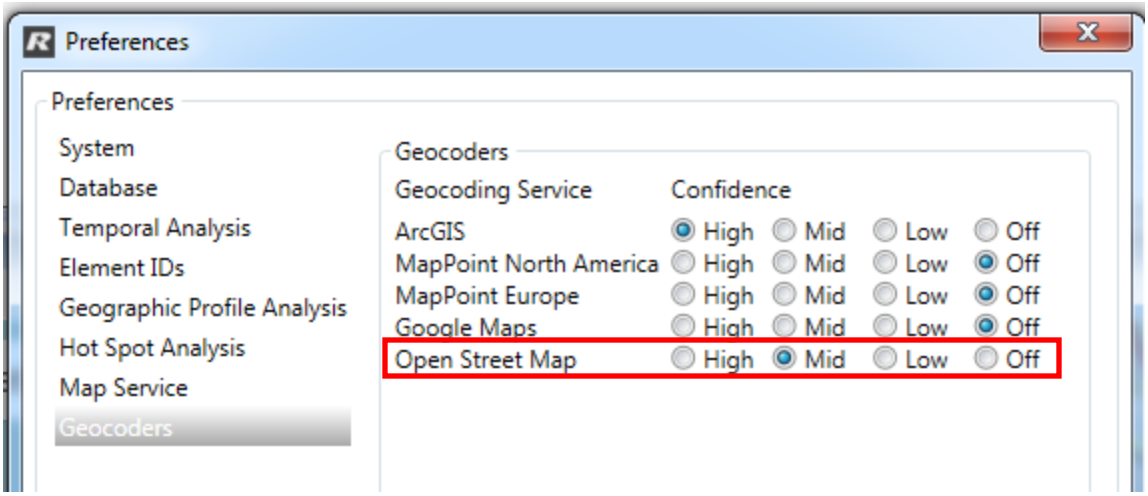
Rigel now fully supports OpenStreetMaps as an independent map service (Tools – Preferences – Map Service). Maps are loaded from the OpenStreetMaps global online server by default. It also is possible to set up a local offline OpenStreetMaps map server – please consult ECRI for additional information if this is of interest.



Google Maps and OpenStreetMaps Comparison

It is still allowed to load an OpenStreetMaps view through Google Maps, but it is not necessary.

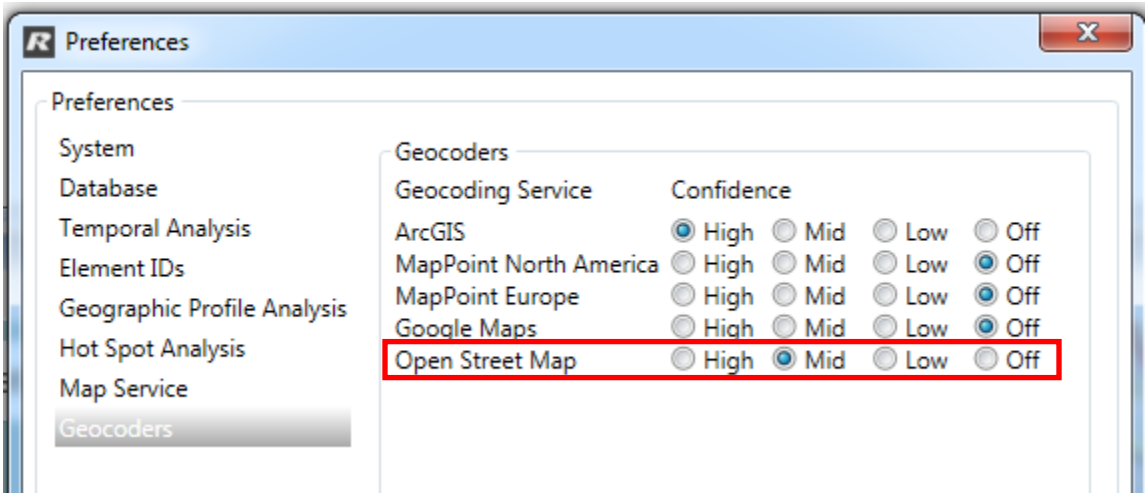
In addition OpenStreetMaps is now supported as an address geocoder (Tools – Preferences – Geocoders). The resolution of the OpenStreetMaps geocoder varies by country. In the United States it is generally good.



ESRI ArcGIS Geocoding Service

Rigel now supports ESRI's ArcGIS online geocoding service as one of the standard address geocoding services available under Tools – Preferences – Geocoders. See https://developers.arcgis.com/rest/geocode/api-reference/geocoding-geocode-addresses.htm for more information about features and limitations.

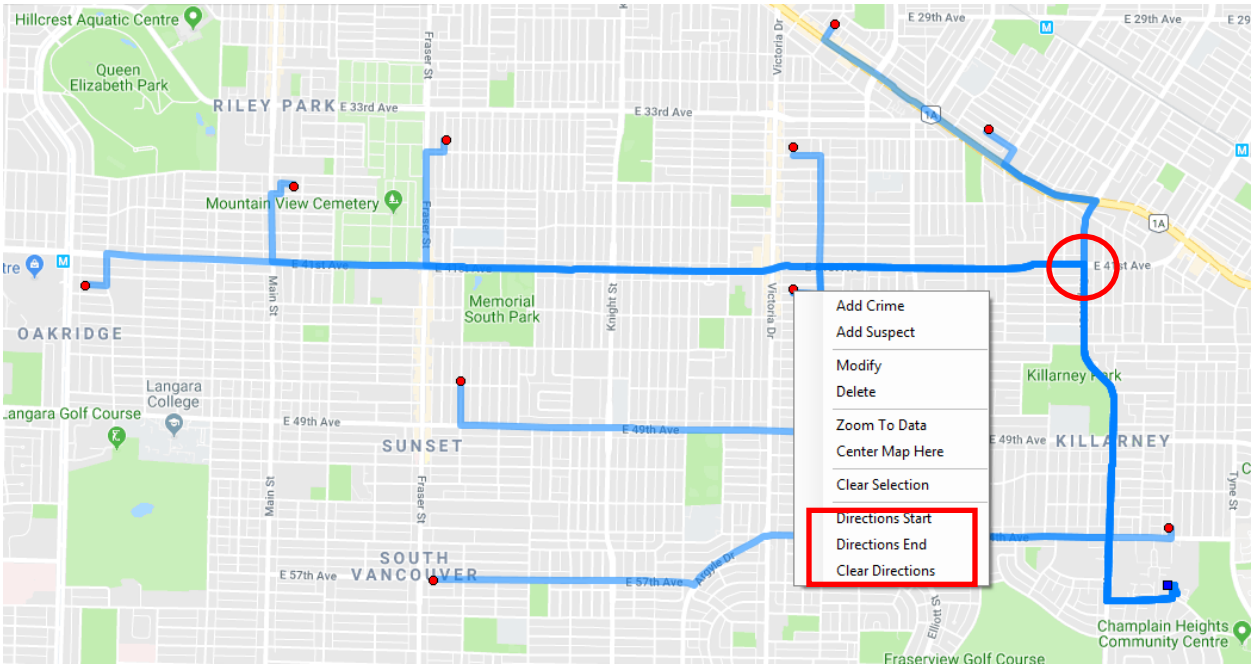
ECRI currently recommends the use of the ESRI ArcGIS geocoder as the default in Rigel.



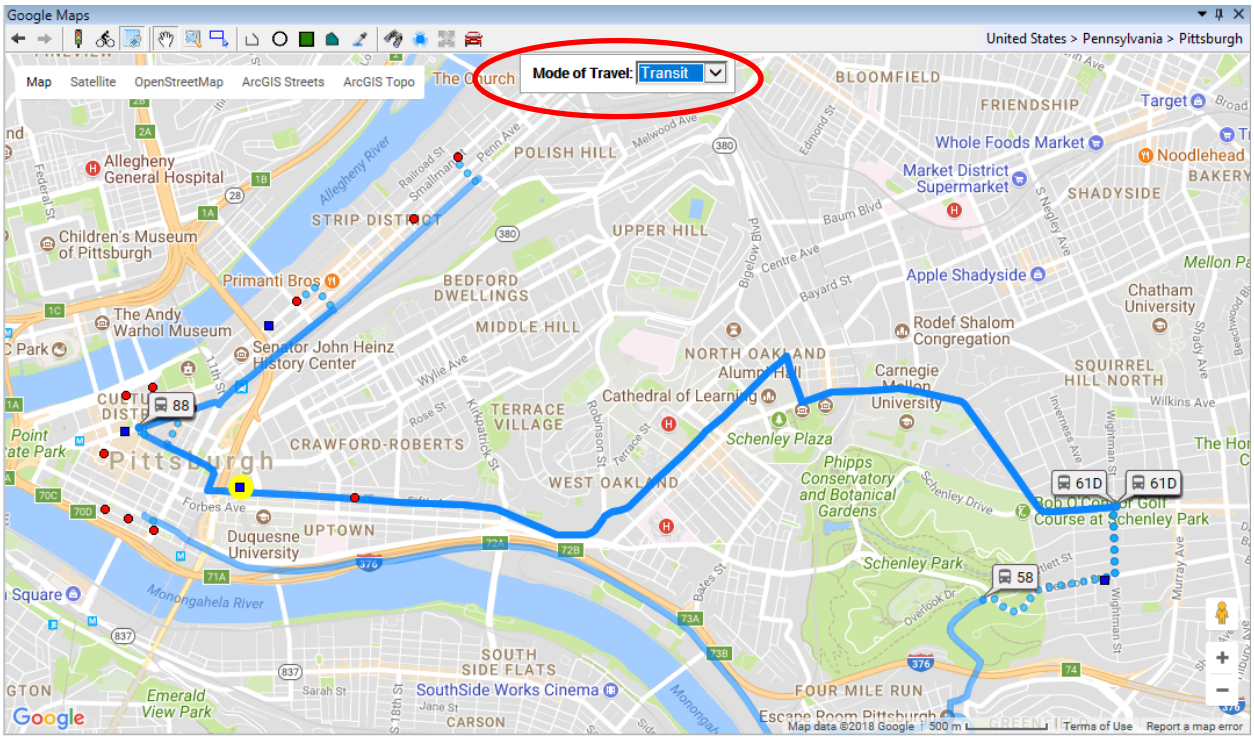
Routing Analysis

Rigel now supports a new feature called Routing Analysis. It is used to visualize the possible routes between a crime site and a suspect location. This may be useful in developing investigative strategies such as suggesting locations for roadblocks or surveillance, or obtaining imagery from traffic cams.

To use this feature, right click on a suspect location shown on the map, and select Directions Start. Then either right-click on a single crime site, or select multiple crime sites using a box cursor or the table view, and select Directions End. Rigel will draw the most likely route(s) between the Start location and the End location(s). You can see where routes overlap, as they are more heavily shaded.



You can set the transportation type for Routes on the map toolbar: Driving, Transit, Bicycle, or Walking.



Fast Batch Hit Score Analyzer

In some cases the need may arise to assign geoprofile hit scores to a very large number of suspects, e.g., in a mass DNA analysis. The numbers may be in the hundreds of thousands. Normal database and display processing in Rigel will be too slow to be practical for this purpose, so a fast batch processor has been created for this purpose.

The fast batch processor simply reads the suspect locations from an input spreadsheet, calculates their hit score, and writes it back to the suspect record in the output file. The geoprofile must be calculated within Rigel first.

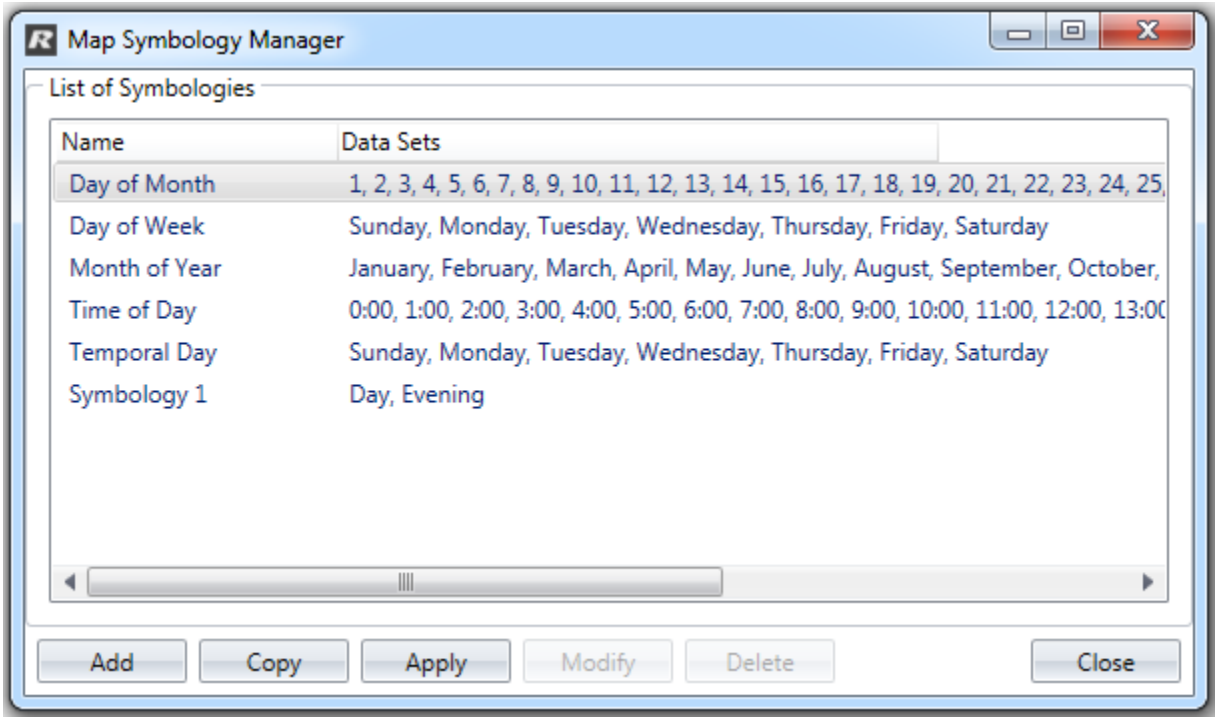
	A	B	C	D	E	F	G	H
1	Num	X	Y	Zone	Name	UpdateDate	Hit Score	Z-Score
2646	2645	6767564	2011284	***	B412	3/24/1983	14.93%	3.65
2647	2646	6762608	1978955	***	B414	3/24/1983	14.68%	3.93
2648	2647	6760810	2007004	***	B415	1/17/1986	14.54%	4.01
2649	2648	6748639	1987854	***	B416	9/17/1986	14.40%	4.18

…

This fast batch process runs smoothly at a rate hundreds of times faster than working within the GUI environment of Rigel.

Symbology Enhancements

The Symbology Manager has now been extended to handle symbology for suspects as well as crime sites. Users can assign custom symbols to suspects, either choosing from a large set supplied with Rigel, or adding their own symbols.



In addition Rigel can now export symbology with cases, allowing custom case symbology to be backed up and exchanged with other Rigel users.

Crime Type Manager Enhancements

The crime type manager has been improved to reduce the possibility of importing invalid crime types and location types during import operations, and to allow users to automatically clean up their crime types list.

The batch importer will no longer create arbitrary new crime types and location types during import, preventing database clutter if crime type designations are mismatched

between the import file and the user's predefined list, or if import fields are improperly assigned.

In addition there is a new one-click database clean-up function to remove and re-assign crime types that do not match the user-specified list.

Case Screen Shot

In the past the Recent Case list in Rigel showed a Google Maps overview of the case location as a visual thumbnail. However this did not provide any information about the current state of the case.

Rigel now saves an application window snapshot of the state of the case each time you close it, and uses that as the associated case image displayed in the Recent Case list.