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Background

The [Hi-Lighter web browser](#) interface provides quick and easy access to the recorded vehicle images. It is the only user method for searching and locating vehicle images. There are two viewing windows the first is the search pane, which shows a list of the vehicles, their location and number plate. You scroll through the listings until you find the vehicle of interest using the search tools such as registration search or time and date search "From" and "To" entries. The second window is the main viewing window which allows detailed viewing of the recorded image set for that vehicle. The following paragraphs describe each of the operations available within each window. Click on the blue underlined text to navigate to specific topics.

Opening the Hi-Lighter web browser

Open browser interface from your chosen desktop icon or favourites link in your web browser. You may also open the browser by typing in the url address of the master computer followed by "/hdb" : <http://<urladdress>/hdb> eg. <http://123.456.789.123/hdb>

You will then see the default log-on screen which will initially be blank.

To view the most recent list of recorded vehicles see [Viewing Vehicle Records](#)

Viewing Vehicle records

To populate the screen with vehicle records click on the search button. After a few seconds you will see a list of up to 13 available pages of ten vehicles per page representing the most recent 13 pages of recorded vehicles.

Date	Registration	Location Lane	Thumbnail Image	Images: 8	View
Tue 17 Dec 2013 08:52:05	DA12EOW	Manchester T2 Lane 1		Images: 8	View
Tue 17 Dec 2013 08:51:38	HV57NLD	Manchester T1 Lane 1		Images: 8	View
Tue 17 Dec 2013 08:48:37	MF07UWV	Manchester T2 Lane 1		Images: 8	View
Tue 17 Dec 2013 08:44:46	CA04HTE	Manchester T2 Lane 1		Images: 8	View
Tue 17 Dec 2013 08:39:55	MF12XDG	Manchester T3 Lane 1		Images: 8	View

On the right hand side you will see a series of vehicle icon images which index the image sets for each vehicle. The number of captured images is shown to the right of the vehicle which will usually be eight for eight camera systems.

The vehicle icons will show different camera views dependant on which image happened to be downloaded first to the store on a "first come first served" basis.

To view the vehicle image set, click on the vehicle icon image itself, or the "View" control text to the right of the vehicle icon. This will then open up a second window with each of the vehicle icons displayed above the main viewing window.

Searching by number plate

Type into the Number plate box any consecutive characters from the requested plate. Click on the search icon and the browser will check the database and produce a list of all the matching plates. You do not need to type in the whole plate, for example searching on "LM" will find both "LMS 16X" and "MLM 21P" If there are multiple pages ie more than ten results, use [the page number control](#) text to scroll through the entries. You can also narrow the search by setting the "From and To" time and date entries and then entering the plate details. The search will then be limited to the start and end times entered into the "From and To" boxes. For example searching on "LM" with "From" set to 00:00 3rd December 2013 and "To" set to 23:59 3rd December 2013 will return all the vehicle entries containing the letters "LM" which entered the site during the 3rd of December 2013.

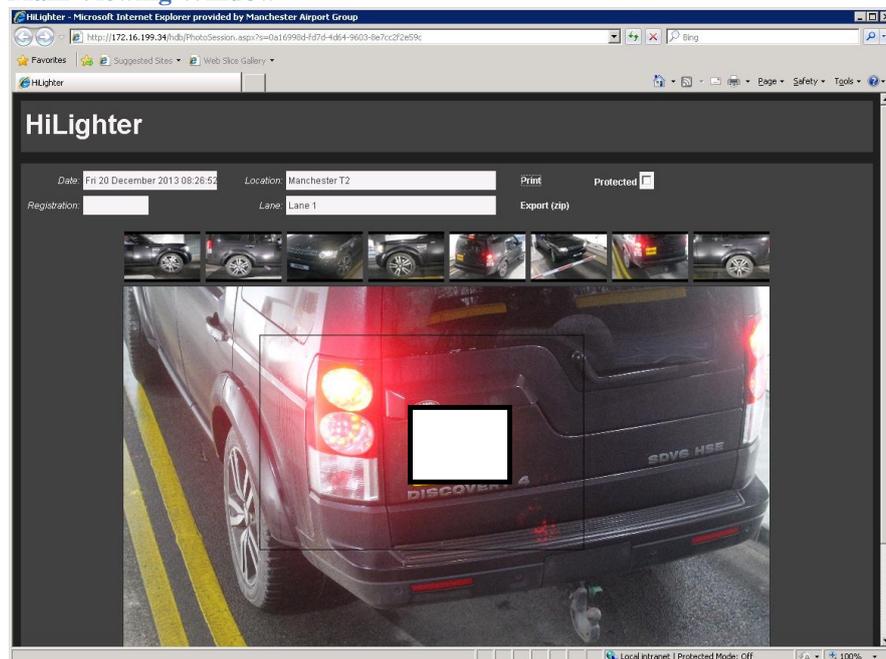
Searching by time and date

To search by time and date use the drop down "From" and "To" boxes to obtain the time range of interest. Click on the search button and the browser will return the most recent 13 pages corresponding to that time span. Use the page control text to scroll through the pages to locate the vehicles of interest. If the search returns more results than can be held within the 13 pages, ie if the earliest time does not reach the required "From" period, then narrow the time period until the number or results are contained within the 13 pages available. The browser can only hold a maximum of 13 pages of results.

Page control

To scroll back and forward within the number of pages returned by the search results, click on the page number and the browser will scroll backwards and forwards in time to display the results obtained within each page. The browser can only hold a maximum of 13 pages of results. Remember to return to page 1 to obtain the most recent results. The current page number is displayed in red to show the current page on display. The picture shows page 4 of 13 displayed.

Main Viewing Window



The main viewing window allows you to carry out the following image manipulation operations for each of the camera views:

- [Zoom and pan](#)
- [Print and email](#)
- [Protect](#)
- [Export](#)

To close the main window once you have completed the image viewing operations click on the browser close tab button to return to the search pane.

Image zoom and pan

Hover over the main window to display an image box which is the region of interest. Move the box to the region of interest and then click on the left mouse button to zoom into the image centred on the box. Click again to zoom further. You can reset the zoom back to its default state by right clicking on the mouse.

Do not zoom in too much otherwise the image will begin to pixelate. Try to find the point where you can see the detail that you need with the best clarity.

Moving the box around will pan within the overall image.

Printing and emailing

Once you have obtained the best view (as described above) you can print what you see to any of your installed printers by clicking on the "Print" control text next to the location box. This will open up your standard print dialogue box to print directly to one of your installed printers or postscript file (.pdf) if you have installed postscript printer software. Just select the appropriate device and the image will be printed along with relevant information such as incident time, number plate details etc.



Printing to .pdf format is most often used for direct emailing to the customer since the attachment size is small enough for most email messages. This is better than emailing the whole image which is generally too large to send directly to the customer (4 Megabytes approximately). To email the image open up your email programme in the normal way and add the saved image as an attachment from wherever the file has been saved.

To print the full sized image at full 12Megapixel resolution use the [export](#) facility and then open the image within a standard photo viewing application such as Windows Photo Viewer to print or manipulate the image directly within the application.

Protect

The image store is only held for a specific period (generally 30 days) in order to prevent the size of the stored images from exceeding the disk capacity and to comply with data protection requirements. After this time the images are automatically deleted as they reach their expiry time. However there are two methods of preventing images from being automatically deleted from the store. Firstly you can [export](#) the images (see the relevant section) alternatively you can protect the image set by clicking on the protect box which will then show a tick, preventing the automatic erasure of the images after the predetermined period. To unprotect images click on the check box again to remove the tick.

Export

If you wish to export the entire image set for a specific vehicle then the export facility will save the set of images to a single zip file. Typically you will use this facility to preserve a specific set of images by storing onto another hard drive or USB memory stick or to send the images to another person over a network. The image set is generally too large to send via email (about 35Megabytes) and so network transmission would normally be via a shared directory or similar high speed method. The other use for the export image set is to obtain greater detail than the built-in zoom function provides, or for further analysis of the images such as applying contrast and brightness enhancement.

The image set is stored within a single zip file with each individual image encoded as a .jpg file and automatically assigned a unique name. The individual images may be easily imported into image viewing programmes such as Windows Photo Viewer by double clicking on the individual image file entries within the .zip file. Most viewing applications allow you to further zoom into the recorded image for greater detail or to improve image contrast and brightness if detail is lacking in the original image.