Data Input Table – Do Not Delete

Item	Location	Bookmark name	X[1,2]	Record of input[3,4]
Report Title – first line	Pages i and ii	T1		HALOGEN Client Console Application [5]
Report Title – second line	Pages i and ii	T2		User Guide
Report Title – third line	Pages i and ii	T3		
Report Title or Heading – first line	Left aligned in headers	HL1		HALOGEN Client Console Application
Report Title or Heading – second line	Left aligned in headers	HL2		User Guide
Group Name	Right aligned in headers – first line	HR1		Mott MacDonald
Client/Associate (where applicable)	Right aligned in headers – second line	HR2		Highways Agency
Project Number	Footers	PRJNR		56414
Report	Footers	RPTNR		TU/002

Number				
Revision Letter	Issue and Revision Record on page ii and footers	REV		4
Date of issue or report	Page i, Issue and Revision Record on page ii and footers	DATE		September 2004
Initials of word processor	Footers	INI		W97

Notes

[1] This column contains the 'Bookmarks'. Do not enter data directly into this column or any other column in the table. Similarly, do not delete data in the columns.

To enter data, right click at the centre of the particular cell in column 'X' and choose 'Update Field' from the menu to enter data through the dialogue box. Do not enter a void in any of the dialogue boxes, otherwise an error message will be displayed. Enter a couple of blank spaces instead.

[2] If you delete a 'Bookmark', you will need to recreate it in the same place with the same name using 'Insert + Fields + Mail Merge + Ask'.

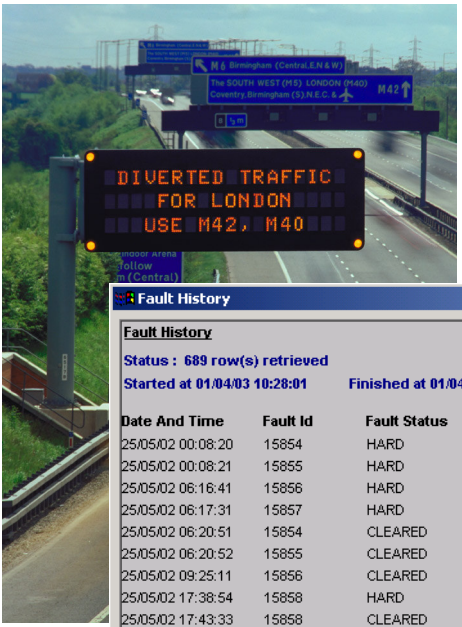
[3] This column and the appropriate locations in the report contain the 'Bookmark References'. These references can be updated by changing the 'View' from 'Normal' to 'Page Layout' and back again.

[4] If you delete a 'Bookmark Reference', you will need to recreate it in the same place with the same name using 'Insert + Fields + Links and References + Ref'. To help locate a reference (or any other 'Field Code') highlight the codes using 'Tools + Options + Field shading + Always'.

[5] Do not insert 'Carriage Returns' to split 'Bookmark references' in the report titles on pages i and ii, otherwise the title will not display correctly. Where a title line is too long, shorten it by changing the appropriate 'Bookmark' entry. Please see the guidance on the previous page regarding font name and size for the main title.

HALOGEN Client Console Application

User Guide



Fault History

Fault History

Status : 689 row(s) retrieved Rows 1 To 15

Started at 01/04/03 10:28:01 Finished at 01/04/03 10:28:17

Date And Time	Fault Id	Fault Status	Equipment Type	Equipment Ref	Clearance M
25/05/02 00:08:20	15854	HARD	MSS	A102M/1268B	
25/05/02 00:08:21	15855	HARD	MSS	A102M/1268B	
25/05/02 06:16:41	15856	HARD	MSS	A12/1421B	
25/05/02 06:17:31	15857	HARD	MSS	A406/1714A	
25/05/02 06:20:51	15854	CLEARED	MSS	A102M/1268B	AUTO
25/05/02 06:20:52	15855	CLEARED	MSS	A102M/1268B	AUTO
25/05/02 09:25:11	15856	CLEARED	MSS	A12/1421B	AUTO
25/05/02 17:38:54	15858	HARD	MSS	A12/3385B	
25/05/02 17:43:33	15858	CLEARED	MSS	A12/3385B	AUTO
25/05/02 21:30:43	15859	HARD	MSS	A102M/1268B	
25/05/02 21:30:45	15860	HARD	MSS	A102M/1268B	
26/05/02 04:49:05	15859	CLEARED	MSS	A102M/1268B	AUTO
26/05/02 04:49:06	15860	CLEARED	MSS	A102M/1268B	AUTO
26/05/02 04:49:56	15861	HARD	MSS	A13/1607B	
26/05/02 04:50:06	15862	HARD	MSS	A13/1608B	

Mott MacDonald

HIGHWAYS AGENCY

HALOGEN Client Console Application

User Guide

Document Ref: 56414/TU/0005 Version 4

Mott MacDonald
1 Atlantic Quay
Broomielaw
Glasgow G2 8YD
Tel 0141-222-4500
Fax 0141-221-8083

Figures

Tables

1 Introduction

1.1 About this Manual

This Manual describes the functionality of the HALOGEN Client Console Application (HCCA), the Internet HALOGEN Client Console Application (HCCAi) and how to use it to access HALOGEN data.

This manual assumes that the user is familiar with basic Windows concepts and terminology and has already read the HCCA Getting Started document (56414/TU/004) or the Internet HCCA Getting Started document (56414/TU/008), which describes how to install and run the HCCA, and how to connect to the HALOGEN FTP server.

1.2 Terminology used in this Manual

The following terms are used in this document

Dialogue box – Small Windows style window that contains information helpful to the user.

Menus – Provide a quick and easy way to access functionality within the main application.

Right-Click – Refers to using the right mouse button.

HotKeys – A combination of keyboard keys that provide a shortcut to menu items.

Logs and Log Types – Logs record the activity or the status of NMCS2 equipment. They are classified into 3 main Log Types : operational, fault or status.

Logging System – Refers to an NMCS COBS or SAC which sends logs to HALOGEN.

Unless otherwise stated, the guidelines in this document refer to both versions of the HCCA (standard dial-up and Internet)

1.3 HALOGEN and the HALOGEN Client Console Application

1.3.1 What is HALOGEN?

HALOGEN (Highways Agency LOGging ENvironment) is the National Motorway Communications Systems (NMCS) Central Logging Service. It provides centralised storage, retrieval and dissemination of current and historical log data generated by Highways Agency systems in Police Control Offices (PCO) throughout England. 29 out of 30 PCOs in England are currently logging data to HALOGEN.

1.3.2 What does HALOGEN do?

HALOGEN provides:

Secure storage of NMCS logs

HALOGEN accepts logs from NMCS subsystems and provides secure storage of received logs in its database. As HALOGEN acknowledges that it has received a log, the sender can be confident that the logs have been stored securely and in such a way that no single point of failure will lead to their loss.
Appendix A provides a full list of all log types accepted and stored by HALOGEN.

The ability to access this log data

HALOGEN accepts users' requests to search and report on the data, and it returns matching logs and/or statistical information about the logs. All this access is available via the HALOGEN Client Console Application (HCCA).

For up to date information on HALOGEN and the HCCA go to the HALOGEN web site at www.halogenonline.co.uk .

1.3.3 Legal Use of HALOGEN Data

Users must note that HALOGEN data should only be used in court proceedings if it has been provided by Mott MacDonald. Under no circumstances should users extract HALOGEN data, either via a reporting tool or directly, for this purpose. If you wish to use HALOGEN data in court please contact the Mott MacDonald Help desk for further assistance (see chapter 15 Mott MacDonald Help Desk for details).

HALOGEN Technical Note 091 'Provision of log data in support of court proceedings' provides more information on this topic and can be found on the HALOGEN website at www.halogenonline.co.uk. This website also provides up to date information on HALOGEN and the HCCA. The 'HCCA Getting Started' document (56414/TU/004) provides more details.

1.4 HALOGEN User Functions

HALOGEN provides users with flexible access to stored log data through :

- A suite of standard reports available through HCCA/HCCAi
- Users' own development of log reports using standard report writing tools (e.g. Sybase Infomaker)
- Direct access to HALOGEN log data via open standards (e.g. ODBC, JDBC).

Standard reports may be set up to run periodically (e.g. once a week) with the results being delivered automatically to the HALOGEN FTP Server. The FTP Server may be accessed using any industry standard FTP client. N.B. this functionality is only available via the HCCA and not the HCCAi.

The HCCA allows data to be saved in a variety of formats including text, comma/tab separated text, Microsoft Excel, Lotus 1-2-3, HTML.

1.5 How to become a HALOGEN User

1.5.1 Contact the Help Desk

To register as a HALOGEN user please contact the Mott MacDonald Help Desk. See Chapter 15 'Mott MacDonald Help Desk' for details.

1.5.2 What information do I have to provide?

To become a user you will need to provide the following details:

- Name and contact details
- The reason access to HALOGEN is required.

1.5.3 Are any approvals required?

The Highways Agency must approve all HALOGEN users.

1.5.4 What happens then?

Once your registration has been approved you will be issued with a copy of the HCCA. You will also be provided with a HALOGEN user name and password, an FTP user name and password, and dial-up network connection details. For further details on connecting to HALOGEN, please refer to Chapter 3 'Using the HALOGEN Client Console Application'.

The majority of users will be allocated a 'Standard User Role' unless they will be performing any HALOGEN administration function on behalf of the Highways Agency.

1.5.5 How do I communicate with HALOGEN?

User access to HALOGEN is achieved through ISDN, PSTN or the Internet.

1.5.6 Is any other software required?

As HALOGEN documents and saved report results will be delivered to users via a HALOGEN FTP Server, we suggest that a user friendly FTP Client is installed (e.g. FTP Explorer or CuteFTP).

2 Installing the HALOGEN Client Console Application

2.1 HCCA Installation

Please refer to the 'HCCA Getting Started' document (56414/TU/004) for instructions on how to install the HCCA, and how to connect to the HALOGEN database via dial-up networking.

2.2 HCCAi Installation

Please refer to the 'Internet HCCA Getting Started' document (56414/TU/008) for instructions on how to install the HCCAi, and how to connect to the HALOGEN database via the Internet.

3 Using the HALOGEN Client Console Application

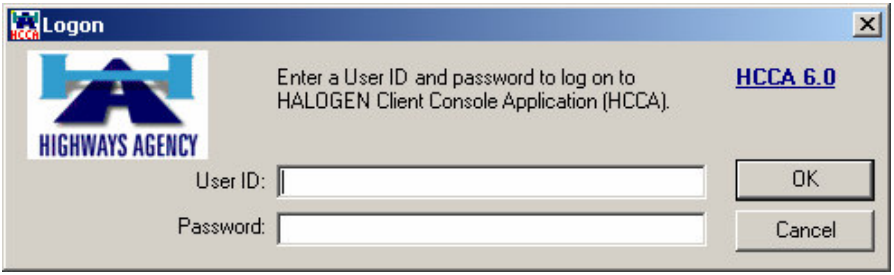
3.1 Logging in to HALOGEN

Before you can connect to the HCCA you must first connect using dial up networking. To do this double click on the "Dial Up Networking" shortcut icon located on your desktop, and then click on the "Dial" button.

Before you can connect to the HCCAi you must first enable your internet connection.

To start the HCCA, double click on the shortcut icon on your PC.

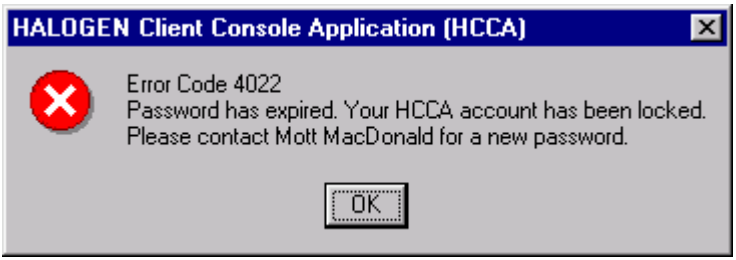
The application will then start up and display the HCCA Login screen.



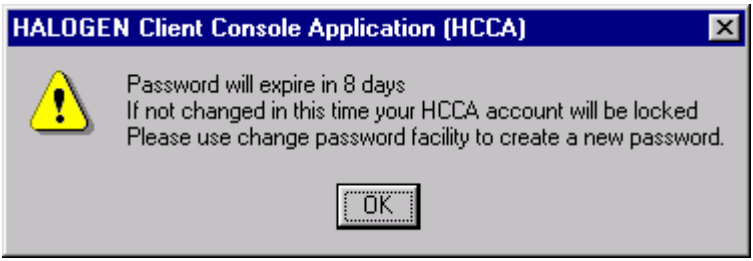
You will then have to enter your username and password provided to you by Mott MacDonald. If you have not been provided with this information then contact the Mott MacDonald help desk (see Chapter 15 for details).

A user password is only valid for 30 days and should be changed before expiry. If the password is not changed within 30 days the user account will be locked. When

a user tries to log into a locked account a message will be displayed saying that the password has expired.



Users must contact the Mott MacDonald Help Desk to unlock an account. Warnings will be given to users for 10 days before password expiration telling them to change their password. Refer to Chapter 12 'Password Configuration' for details on changing a password.



3.2 HCCA Basics

When the HCCA runs a standard menu driven Microsoft Windows style screen is displayed. All menus are accessible via point and click or a combination of hotkeys.

All HCCA windows have standard "Windows" functionality. For example when a window is resized, all the window controls resize. When changes have been made, but not saved, an appropriate warning message is displayed if an attempt is made to close the window.

Other standard features, such as Tooltip Text and Help are available on the toolbar. To see Tooltip Text, position the mouse cursor over a toolbar icon for a brief period.

3.2.1 Closing HCCA

There are two methods available to users when shutting down the HCCA:- closing the HCCA and leaving the dial up connection running, or closing the HCCA and the dial up connection together. Both of these options are available via the 'File' menu in the HCCA or on the toolbar.

3.3 Main HCCA functions and how to access them

On running the HCCA, the main window is shown. This window provides access to all HCCA functionality which is available via menus, or from the toolbar buttons circled below:

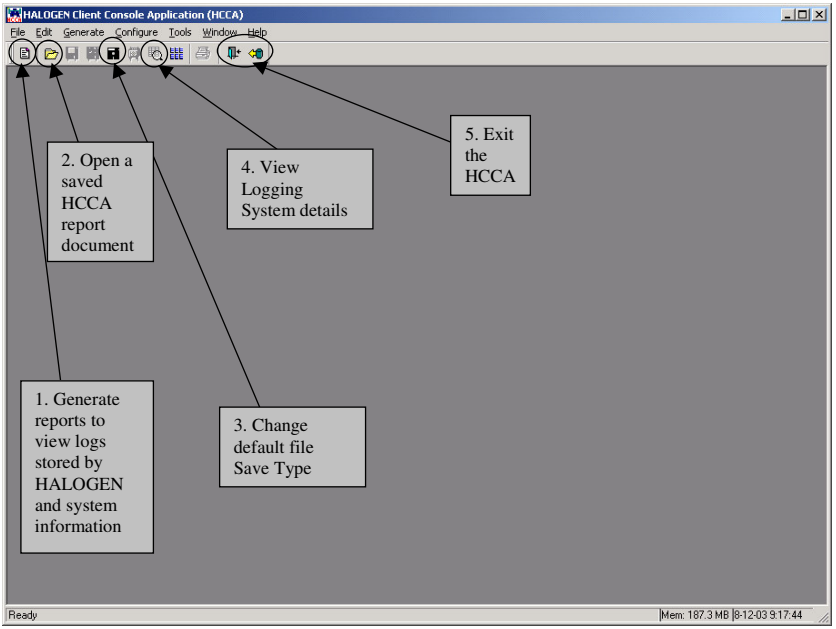


Figure 1 – Main HCCA Window

1. Use this option to retrieve logs and data on system operation from the HALOGEN database. Standard reports (refer to Chapter 4.1.1 'Standard Report Definitions') allow users to retrieve log data. System reports (refer to Chapter 4.1.2 'System Report Definitions') provide access to operational information, such as logging system connections, invalid logs received from logging systems and exceptions raised by the HALOGEN database. Chapter 5 provides full details on how to create these reports.

2. Use this option to open up saved reports. By default the HCCA saves reports in an internal format, with file extension .HSR. These report files can be opened by the HCCA and the report results displayed. The report can then be saved in an alternative format (e.g. Excel) if desired.

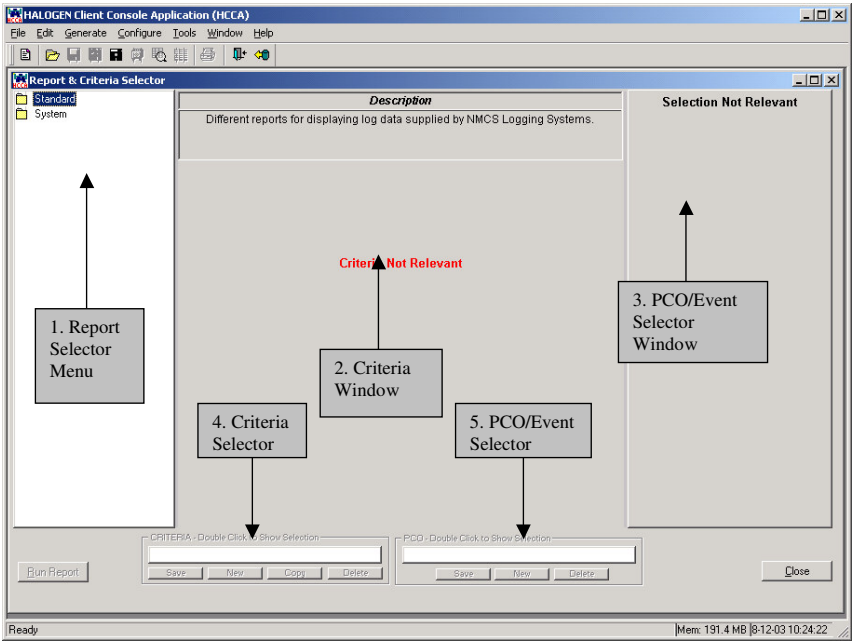
3. Use this option to change the default format in which report results are saved. The default is originally set to HSR, but can be changed to be any of the supported file formats. (Refer to Chapter 11 'Default Save Extension' for details.)

4. **HCCA Only** - Use this option to view logging system details, such as RCC address and PCO ID, or to view which log types are associated with a logging system. (Refer to Chapter 10 'Viewing HALOGEN Configuration' for details.)

5. Use this option to log out of the HCCA. There are two ways of exiting the HCCA :- closing the HCCA and leaving the dial up connection running, or closing the HCCA and the dial up connection together, - this second option is only available via the HCCA and not the Internet version. Hovering the mouse over the button will provide a tool-tip telling you what each button does.

4 Generating Reports

To generate a report, choose “Reports” from the “Generate” menu or click on the “Generate any report” button on the toolbar. This will open up the “Report & Criteria Selector” window shown below.



This window is split into 5 main areas.

4.1 Report Selection

The “Report Selector” menu operates in the same way as Windows Explorer, with a double click to expand a folder and a single click to select a report. Choose the report that you want to run. Once a report has been selected, all other 4 sections of

this window will be populated to show the relevant selection criteria and PCO[1] pick list for that report.

A suite of Standard and System Reports is available. These are described below.

4.1.1 Standard Report Definitions

Standard Reports are reports on log data received by HALOGEN from NMCS Logging Systems. The following reports, described in more detail in subsequent sub-sections, are available:

- All Options Default Output
- All Options-Extra Details (**HCCA Only**)
- All Options-Suppressed Timestamps (**HCCA Only**)
- Calls Per Day
- COBS Sign Setting History
- COBS Signal Setting History
- Combined COBS Signs and Settings
- Fault History
- Fault Duration Report
- First Log (**HCCA Only**)
- High Volume Faults
- Last Log (**HCCA Only**)
- Log Counts Per Day (**HCCA Only**)
- Log counts Per Hour (**HCCA Only**)

[1] This will change to an Event selection list when the Exceptions report is used

- Multi Clearance
- MSS Usage (**HCCA Only**)
- SAC Sign Setting History (**HCCA Only**)
- Settings Per Day (**HCCA Only**)
- Sign and Signal Utlisation
- Software Version Summary
- Telephone Statistics – Per Call Details

Standard Reports only return valid log entries. Log entries with any invalid fields are excluded from the report results. Refer to Chapter 4.1.2(iii) 'Invalid/Unknown Count Summary' for further details.

All Standard reports have help associated with each log type available for selection. Blue underlined text is located to the left of each of the 3 log type pull down menus. Clicking on this text will open a small window providing information on the data available in the relevant pull down menu. Appendix A 'Log Types' provides a full list of log types stored in HALOGEN.

Standard Reports are available to all HALOGEN users. If any problems are encountered locating data of interest, or any report does not meet your specific needs, then please contact the Mott MacDonald Help Desk.

(i) All Options Default Output

This report allows retrieval of data for all log types, depending on the user search criteria. This report can be used to see all the logs a logging system(s) sent to HALOGEN within a time period, or it can be used to search for specific types of log sent by a logging system(s). No processing is done to the returned data. The report is ordered by Log Date (oldest log first) then HALOGEN Receipt Date. Only column headers which are common to every log type are displayed, all other columns are just displayed as tab separated values.

Log data fields are output in ascending field number order within ascending line number order, with fields formatted as defined in the Highways Agency document MCH 1780 “NMCS2 Logging Formats and Guidelines”.

(ii) All Options-Extra Details (HCCA Only)

This report is exactly the same as the All Options Default Output report except that the data retrieved contains extra HALOGEN log information, such as repeating line IDs and updated flags.

(iii) All Options-Suppressed timestamps (HCCA Only)

This report is exactly the same as the All Options Default Output report except that the data retrieved does not contain extra HALOGEN timestamps.

(iv) Calls Per Day

This report provides per day statistics on incoming and outgoing telephone calls (TLOG2001).

Output is : Date, Logging System, Incoming Normal Count, Incoming Average Answer Time, Incoming Average Call Duration, Incoming Invalid Count, Incoming Overlong Answer Count, Incoming Overlong Duration Count, Incoming Test Count, Incoming Unanswered Count, Incoming Unclassified Count, Outgoing Normal Count, Outgoing Overlong Answer Count, Outgoing Overlong Duration Count, Outgoing Test Count, Outgoing Unanswered Count, Outgoing Unclassified Count where :

- Count is the total number of calls type (Normal, Invalid, Overlong Answer, Overlong Duration, Test, Unanswered and Unclassified) for that day
- Answer is the average time to answer the calls in seconds
- Duration is the average duration of the calls in seconds

(v) COBS Sign Setting History

This report provides a historical view of the message sign setting logs (OPLG 0802) for the selected control office(s) and matching user search criteria.

This report is formatted to remove all quotation marks from the equipment setting column.

Output is : Logging System, Date and Time (the log date), Equipment Type, Equipment Ref, Equipment Setting, Initiator Id Type, Initiator Id, Implementation Reason, Setting Status, Requested Setting.

(vi) COBS Signal Setting History

This report provides a historical view of the device settings log (OPLG 0801) for the selected control office(s) depending on user search criteria. No processing is done to the returned data. The report is ordered by Log Date (oldest log first) and HALOGEN Receipt Date. Column headers are provided for all columns in this report.

Output is : Logging System ,Date and Time, Equipment Type, Equipment Reference, Setting, Initiator Id Type, Initiator Id, Implementation Reason, Setting Status and Requested Setting.

(vii) Combined COBS Signs and Settings

This report combines both the COBS Sign Setting History and COBS Signal Setting History report. The report simplifies the integration of HALOGEN information for the MIDAS Replay tool.

Output is : Date and Time, Equipment Type, Equipment Ref, Equipment Setting, Initiator ID Type, Initiator Id, Implementation Reason, Setting Status, Requested Setting

(viii) Fault History

This report provides a historical view of the fault logs (FLOG 0001, 0002 and 0003) for the selected control office(s) depending on user search criteria. No processing is done to the returned data. The report is ordered by Log Date (oldest log first) and HALOGEN Receipt Date. Column headers are provided for all columns in this report.

Output is: Date and Time, Fault Identifier, Fault Status, Equipment Type, Equipment Reference, Fault Clearance Method, Fault Type and Fault Text.

(ix) Fault Duration

This report provides details of faults where the duration (i.e. the time difference in seconds between a fault detection and its related clearance) exceeds a user specified threshold. It reports on log types FLOG0001, FLOG0002, FLOG0003, TFLG0004 and TFLG0005.

Output is : Logging System, Date/Time Detected, Date/Time Cleared, Duration, Fault Id, Fault Status, Fault Severity, Equipment Type, Equipment Address, Fault Type and Fault Text.

(x) First Log (HCCA Only)

This report lists the oldest log for all log types selected and matching the user search criteria.

(xi) Last Log (HCCA Only)

This report lists the most recent log for all log types selected and matching the user search criteria.

(xii) Log Counts Per Day (HCCA Only)

This report provides a per day count of each of the selected log type(s) and matching user search criteria. Note that the statistics for the first and last day of the report will only be from the search start time to the search end time.

This report can only be run using one of the date and time search criteria (refer to Chapter 4.2.2 'Time Periods' for explanation of date and time search criteria). If both date and time search criteria are specified then the report will produce an error message.

A warning message explaining this restriction is displayed on the "Criteria Window" for this report.

(xiii) Log Counts Per Hour Report (HCCA Only)

This report is the same as Log Counts Per Day except that the output is broken up into hourly segments.

(xiv) Multi Clearance

This report will provide details on the number of times manual/automatic fault clearance was run and how many faults were cleared. The output from this report will include a clickable link of the number of faults cleared which will link to the faults themselves in a separate report window – Equipment Faults.

Output is (Multi Clearance): Logging System, Clearance Method, Clearance Date and Time, Clearance ID, No. of Cleared Faults.

Output is (Equipment Faults): Logging System, Fault Detected, Fault Duration (Sec), Fault ID, Fault Status, Equipment Type, Fault Type, Fault Text, Subsystem.

(xv) MSS Usage (HCCA Only)

This report calculates the utilisation for a given message sign, over a specified period of time. On a day by day basis, the report shows the total period of 'on' and 'off' time in seconds, and also shows those totals as a percentage.

(xvi) SAC Sign Setting History (HCCA Only)

This report provides a historical view of the device setting logs (OPLG 0804) for the selected control office(s) and matching user search criteria. Processing is carried out on this report for special character sets. Consecutive multiple occurrences of special character sets are displayed as only one occurrence. E.g. <F1><F1><F3><F1> is displayed in the report as <F1><F3><F1>. All column headers are visible in this report.

Output is : Date and Time, Equipment Type, Equipment Reference, Initiator Id Type, Initiator Id and Requested Setting.

(xvii) Settings Per Day (HCCA Only)

This report provides a per day count of the number of automatic and manual device settings. This report can be used to assist in measuring the “busyness” of a PCO. It reports on log types OPLG0801, OPLG0802 and OPLG0804.

Output is : Date, Logging System, Manual Settings, Automatic Settings and Total Settings.

(xviii) Sign and Signal Utlisation

This report provides details on the availability for Sign and Signals. Results are given on a day per day basis and a summary of the availability is provided.

Output is : Day, Total Time, Total Off Time, Total On Time, Off Percent, On Percent

(xix) Software Version Summary (HCCA Only)

This report provides details of COBS, SAC and subsystem startup information. It reports on log types OPLG1201, OPLG1202 and OPLG1204. Data is sorted by log type, then grouped together by identical Equipment Type, System Id, Software Version, System Data Version information. These groups are then used to calculate the first startup and last startup times for the Software Version and System Data Version information. The report is ordered by loggingsystem and the date the software was first installed

Output is : Log Type, Logging System, Equipment Type, System Id, Software Version, System Data Version, First Startup and Last Startup.

(xx) Telephone Statistics - Per Call Details (HCCA Only)

This report provides details of all incoming and outgoing telephone calls (TLOG 2001) including test calls, for the defined user search criteria.

Output is : Date and Time, Logging System Id, Equipment Ref, Call Direction, Time to Answer, Duration, Pickups, Off Hook where:

- Time to Answer, Duration, Pickups, Off Hook are calculated columns.
- Time to Answer is the minimum difference between the call answer time and the call start time.

- Duration is the maximum difference between the call answer time and the log date and time (which is the time that the logging system generated the log).
- Pickups is a count of the Telephone Line Controller (TLC) references.
- Off Hook is the sum of the call answer time and the call cancel time.

4.1.2 System Report Definitions (HCCA Only)

System Reports provide users with details of HALOGEN operation and the status of its links to other systems. The following reports, described in more detail in subsequent sub-sections, are available:

- Current System Status (Operational Summary)
- Exceptions Report
- Invalid/Unknown Count Summary
- Invalid/Unknown Log List
- Log Fluctuations
- Logins & Logouts Report
- Raw Message Report

System reports are available to all users.

(i) Current System Status (Operational Summary) (HCCA Only)

Current System Status provides the following details for selected Logging Systems with a connection to HALOGEN:

- RCC address.
- logging system name.
- name of HALOGEN FEP to which logging system is connected.
- date/time of last SVC setup (if blank, there is no current connection to HALOGEN and no data is being sent).

- date/time of last log received by HALOGEN, time is shown in GMT (this is the last time HALOGEN received any data from the logging system, no data will exist in the database after this time).
- count of known logs received since the SVC was setup.
- count of unknown logs received since the SVC was setup.

The data displayed is refreshed every minute. When the report refreshes the save buttons and scroll bars will become disabled, they will re-enable once the report has completed. It is possible to highlight a row of interest in this report. Only one row can be selected at one time. To highlight a row simply click on it. When a row is highlighted it will become blue and when the page refreshes this row will remain highlighted and stay on the current page.

Note that the highlighted row may scroll to the top of the current page when the page refreshes.

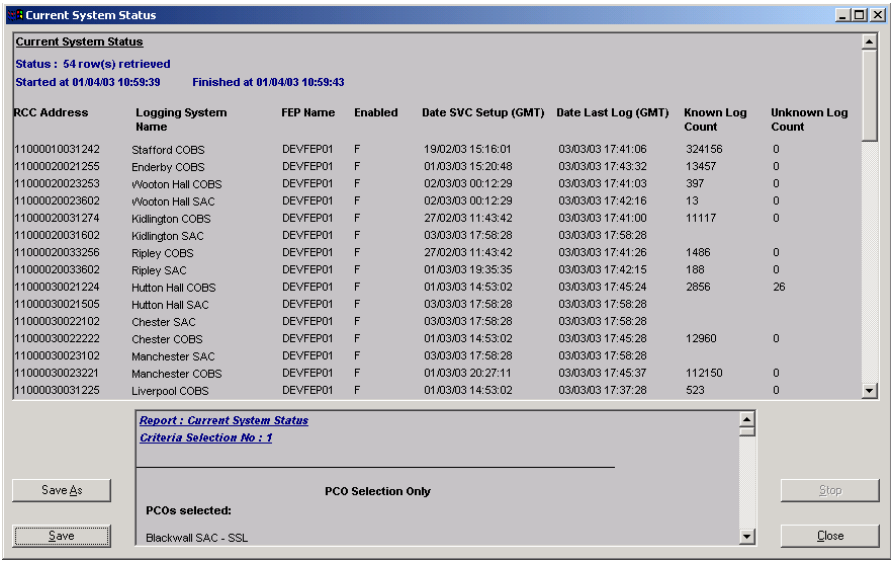


Figure 2 – Current System Status Screen

(ii) Exceptions Report (HCCA Only)

This report provides users with the ability to report on the HALOGEN Exception Log. Criteria are a date and time search period and a pick list of exception types and logging systems.

The Exception Log stores details of significant operational events and problems including instances where incoming data to HALOGEN is of an unsupported format, or if HALOGEN has failed to connect to a logging system.

This report is a good starting point for any troubleshooting regarding logging system connection problems. See Appendix B 'Exceptions & X25 Error Codes' for a full list of all Exceptions that can be reported on. X25 error information is only available for exception numbers :- 53009, 53012, 53013, 53014, 53015, 53016.

Columns are Dt Inserted, Message Text, HALOGEN Table Name, Bad Log ID, Logging System ID, X25 Description, X25 Error, X25 Cause, X25 Diag.

(iii) Invalid/Unknown Count Summary (HCCA Only)

Not all log data sent to HALOGEN from Logging Systems is error free. Unknown logs cannot be matched to any of the Log Templates known to HALOGEN. Invalid logs are recognisable as a particular Log Type/Entry Type but contain fields with invalid data. The Invalid/Unknown Count report displays, in accordance with the supplied search criteria, the number of logs for each Logging System which fall into either of the preceding categories.

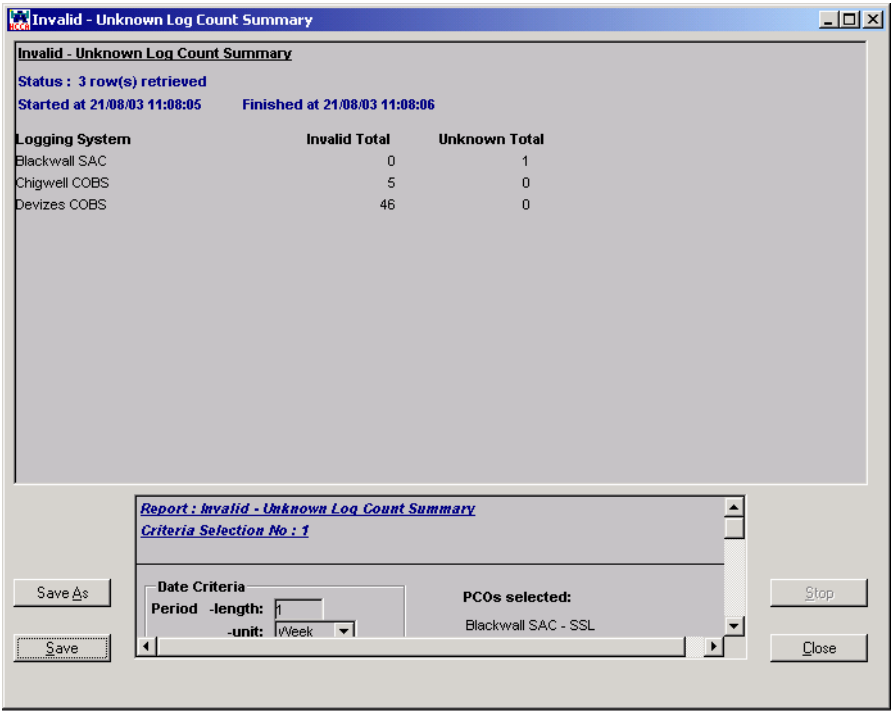


Figure 3 – Invalid – Unknown Log Count Summary Screen

(iv) Invalid/Unknown Log List (HCCA Only)

Provides a detailed description of Invalid and Unknown logs.

Logs are grouped by error type (a table of the error types is shown below). Unknown logs will show the actual raw message that was received from the logging system.

Error Types	Explanation
Unknown template ! Unexpected EntryID %1 received from loggingSystem %2, %3.	Where %1 is the log type, %2 is the logging system id and %3 is the logging system name
Invalid data length for field %1, for entry %2. Valid length up to %3 characters.	Where %1 is the field line (eg 01) and number (eg 06), %2 is the invalid data entry and %3 is the valid length for that field
Invalid data for enumerated field with TemplateId %1, for field %2. Entry %3 is not valid for this field.	Where %1 is the log type and version number, %2 is the field line (eg 01) and number (eg 06) and %3 is the invalid data entry
Invalid data for datetime field with TemplateId %1, for field %2. Entry (%3) is not a valid date/time.	Where %1 is the log type and version number, %2 is the field line (eg 01) and number (eg 06) and %3 is the invalid data entry
Bad log message received from loggingSystem %1.	Where %1 is the loggingsystem id
Failed to insert log message from loggingSystem %1 into log table using Insert%2	Where %1 is the loggingsystem id and %2 the procedure used to insert the data

Table 1 – Invalid – Unknown Log Error Messages

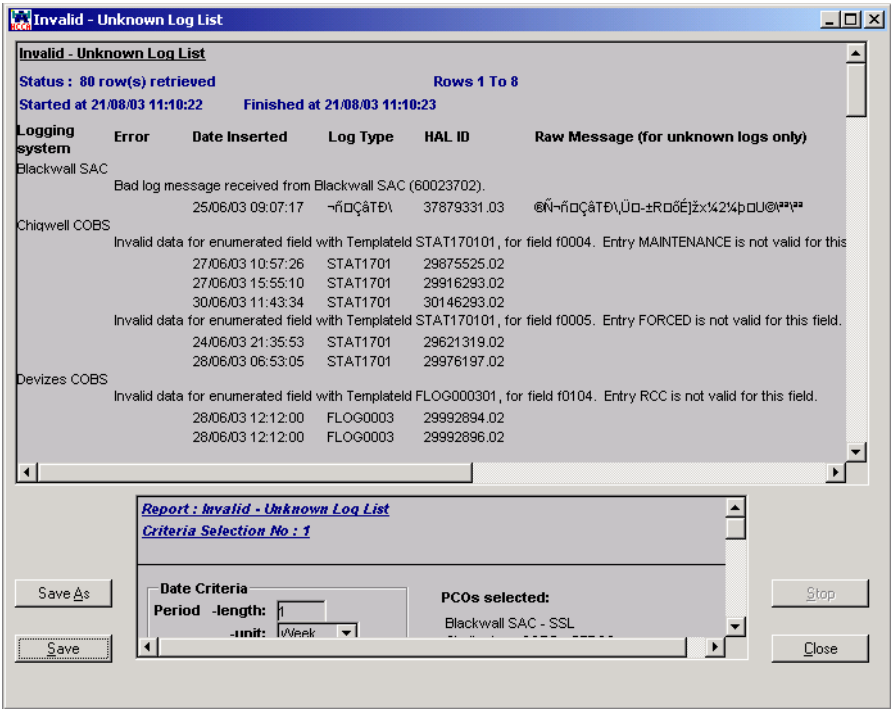


Figure 4 – Invalid – Unknown Log List Screen

(v) Log Fluctuations (HCCA Only)

The report shows the fluctuation in the number of logs received from a Logging System in the past day, where that fluctuation is greater than a percentage threshold over the previous week's average. The percentage threshold is currently set at 50%.

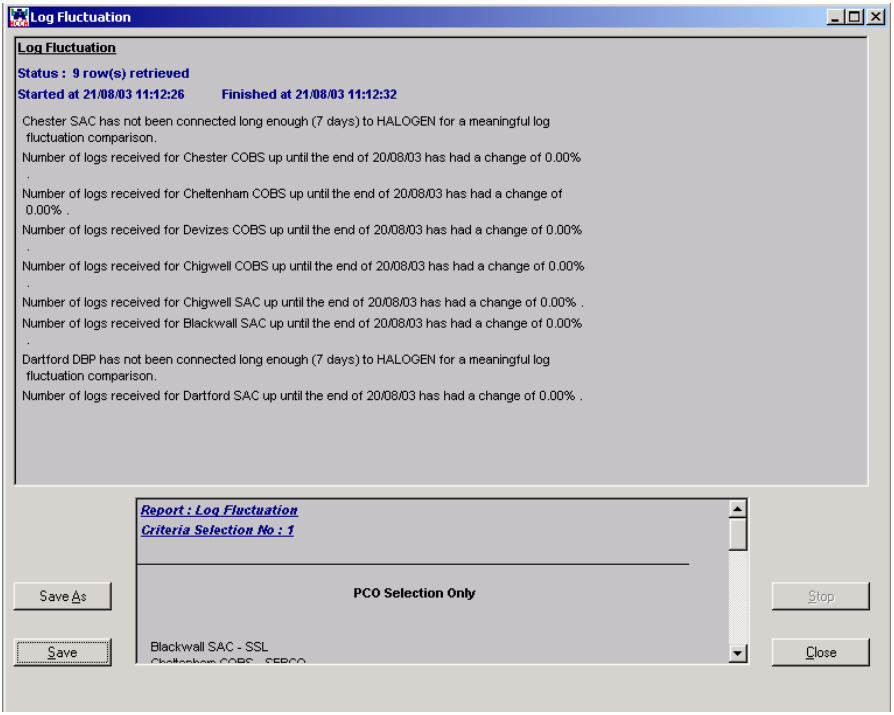


Figure 5 – Log Fluctuation Screen

(vi) Logins & Logouts Report (HCCA Only)

This report allows users to view user HCCA activity over a specified date and time period, for all users or a specific user picked from a pick list. This report shows when users logged into the HCCA, what reports they ran, and log out details.

User Log ins and Log outs are highlighted in blue text to distinguish them from other activities.

Columns are Event Time, User, Event.

(vii) Raw Message Report (HCCA Only)

This report lists the contents of the Raw Message table, which stores in raw form every message (valid or invalid) which has been received by HALOGEN. This report may take longer to run than other reports as the table contains every log message received from all logging systems. The Raw Message table is periodically archived. If you require access to raw data which is not currently online, then please contact the Mott MacDonald help desk.

Search criteria available are a date and time period and logging systems. It is possible to output the actual raw message as either HEX or TEXT Format.

Columns returned are Dt Inserted, Logging System, Log Type, HalID, Message.

Please note, it is highly recommended that long time searches are avoided when using this report. Running this report for search criteria covering over 1 hour and using many PCO's may take a long time to retrieve, due to the large amounts of data being searched. This may also have an effect on the user's computer resources.

4.2 Specifying Search Criteria

Generation of all reports requires the user to define the scope of the report by supplying a set of search criteria. These criteria differ from report to report. The "Criteria Window" shows the search criteria available for the particular report chosen from the "Report Selector" menu.

The search criteria supported by the HCCA are described in the following sub-sections.

4.2.1 Log Type Selection

The scope of a report can be limited by log type. Log types are selected from three pick lists, the values in these pick lists are specific to a report. They contain the Log Types, Entry Types and Entry Sub Types that can be searched on. It is not

possible to select multiple entries from these pick lists, but it is possible to select "ALL" entries for a specific log type, entry type or subtype. Once a specific Log Type is selected, the Entry Type pick list is filtered to only show entries that are relevant to the chosen Log Type. Once a specific Entry Type is selected, the Entry Sub Type pick list is filtered to only show entries that are relevant to the chosen Entry Type.

The text name of these pick lists is also a link to a quick help reference to the log types. When the mouse is over the link, the mouse pointer will change from an arrow to a web style hand pointer. The "Log Type" help describes each specific log type stored by HALOGEN, the "Entry Type" help describes the information stored per entry type and "Entry Subtype" help describes exactly what each HALOGEN log entry stores.

See Appendix A 'Log Types' for a list of the log types stored by HALOGEN.

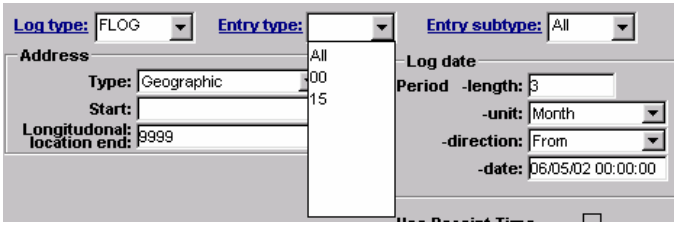


Figure 6 – Log Type Pick list

4.2.2 Time Periods

There are two time criteria that a user can search on: Log date which is the actual date and time the log entry was generated by the Logging System, and Receipt date which is the date the log was received by HALOGEN.

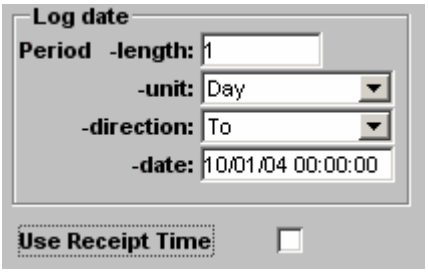
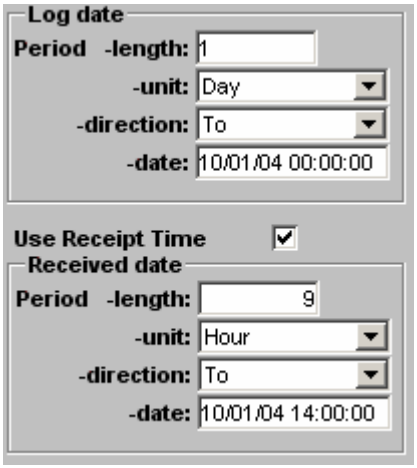


Figure 7 – Time Criteria Selection

It is highly recommended that time searches are always carried out on Log date, as this will produce a faster data retrieval. If it is necessary to search on Receipt date, then it is recommended that Log date is used to specify a "window" which will encompass the Receipt time used.

As a general default the Receipt date criteria will not be shown on the "Criteria" window. To view the Receipt date, or use it, a check box has to be completed.



Date and time search criteria are split into 4 fields, ALL of which are used in a search : -

Unit A pick list of date and time units to search on; list contains

	Minute, Hour, Day, Week, Month, Year, Not Used. If "Not Used" is selected then this form of date search will be deemed as not being used and its values reset.
Period Length	A positive numeric value which constitutes the number of units which will be searched on. If a blank value is specified then this format of date search will be deemed as not being used and its values reset.
Direction	A pick list which defines if the search is going From or To your specified date. The list contains To, From and Not Used. If "Not Used" is selected then this form of date search will be deemed as not being used and its values reset.
Date	A Date and Time value entered in the format 'dd/mm/yy hh:mm:ss'.

If either of the Log or Receipt date and time search criteria is not being used, then the Unit and Direction fields will reset to "Not Used" and the Period Length and Date will reset to empty fields. The Date value will automatically populate to the current system time when this date criteria is brought back into use.

Note that whenever you create a new set of criteria for a report, the log date criteria will default to 1 day to the current date and time, unless you have previously saved any criteria for this report. Saving search criteria for a report is described in Chapter 4.4. 'Storing Search Criteria & PCO Selection'.

4.2.3 Equipment Type

You can specify a particular type of equipment in which you are interested. Select a specific type from the pick list or select '(ALL)' to search for all values.

Valid values for this field are :- AID, ALM, COB, COBS, DDS, DEV, DRC, FAL, FOG, I/S, IPL, IPLU, IPU, LCC, LDU, LIT, MAN, MD, MET, MID,MIDA, MSS, NMI, NMS, O/S, OIF, OVH, PH2, PLC, RCC, RES, RIF, RMT, S, SAC, SIG, SS,

SYS, TCC, TEL, TID, TLC, TMI, TPR, TRF, TSC, TUN, TVC, VAC, WMC, WMU and WWG

4.2.4 Address Criteria

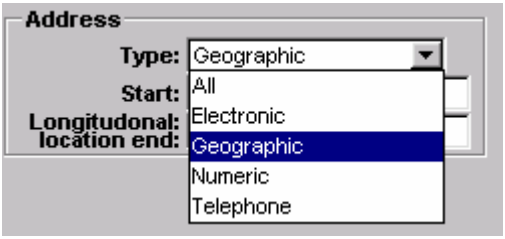


Figure 8 – Address Pick list

(i) ALL Addresses

You can specify the address of the item of equipment on which you wish to report. To search for ALL address values, select "ALL" from the address pick list.

(ii) Electronic Address

To specify an electronic address search, select "Electronic" from the address pick list. Note this will delete any previous addresses of different types you have entered.

Simply enter a start and/or end address to search on. Electronic addresses must be entered in the format (nnn/n/nnn/nnn) where n is a number between 0 and 7. To search for a specific address, the address must be entered into the start AND the end field. Whenever an electronic address is chosen by the user, default values will be automatically shown. If there is no value present the default start value is (000/0/000/000) and the end value is (777/7/777/777). These will always be the

defaults unless a user specifies a different address. If both start and end values are left blank then ALL address types will be searched for.

(iii) Geographic Address

To specify a Geographic address search, select “Geographic” from the address pick list. Note this will delete any previous addresses of different types you have entered.

Simply enter a start address in the format “M25/1234A1”, where “M25” is the motorway and “1234”is the Longitudinal Location Start (or Marker Post From) and “A” is the carriageway and “1” is the Lane. There should be no spaces. The more data entered into the start field, the more specific the search will be. All data entered in the start field must contain a “/”. If only a motorway is specified in this field then the Longitudinal Location start value will default to ‘0000’. Specify the end of your search by entering a Longitudinal Location end value (please note this must be of the format nnnn, where n is a number between 0 and 9). This will be set to default value ‘9999’ if no user value is present. If no Motorway value is specified then ALL address types will be searched for.

(iv) Telephone Address

To specify a telephone address search, select “Telephone” from the address pick list. Note this will delete any previous addresses of different types you entered.

Simply enter a start and end address to search on. Formats for this address are as follows :

Telephone Equipment : n/nnn/n or nnn/n

Responder Equipment : n/nnn

TLC Equipment : n/n

Sector & Block Equipment : n/nn

where n is a number between 0 and 7. To search for a specific address, the address must be entered into the start AND end field. Whenever this address type is chosen by the user default values will be automatically shown. If there is no value present the default start value is (0/000/0) and the end value is (7/777/7). These will always be the defaults unless a user specifies a different address. If both start and end values are left blank then ALL address types will be searched for.

(v) Numeric Address

To specify a numeric address search, select "Numeric" from the address pick list. Note this will delete any previous addresses of different types you have entered.

Simply enter details for 'Start' and 'End' for all numeric addresses (e.g. OIF addresses, Sector Switch addresses). Whenever this address type is chosen by the user default values will be automatically shown. If there is no value present the default start value is 000 and the end value is 999. It is recommended that equipment type is also supplied. If both start and end values are left blank then ALL address types will be searched for.

(vi) Exclude Address Like

All Fault and sign/signal setting reports (except MSS Usage) include an additional address field that allows specific addresses to be excluded from the data search. This is a useful option if a specific address is causing a large number of faults or a user does not wish data from a particular motorway.

The search will locate and ignore any addresses that can match the value in this field so a full address does not need to be added.

E.g. Entering 'M6' into this field will exclude all log data for the M6, while entering 'M6/1234A2' will exclude all log data for M6/1234A2

Figure 9 - Exclude Address Field

4.2.5 Setting

You can specify the equipment setting on which you wish to report. Setting values may contain single characters, or parts of words, as well as whole words. No wildcards are needed to search for single character or parts of words, just type a character or group of characters in the setting field. If left blank, all settings will be returned.

4.2.6 Implementation Reason

You can search for Implementation Reasons. These may contain single characters, or parts of words, as well as whole words. No wildcards are needed to search for single character or parts of words, just type a character or group of characters in the "Implementation Reason" field. If left blank, all reasons will be returned.

Valid reasons as declared in Highways Agency document TR2133 are :- 'Update/Initialisation', 'Clear', 'Part_Clear', 'Accident', 'Congestion', 'Road Works – Coning', 'Obstruction', 'Debris', 'Incident', 'Animals', 'Pedestrians', 'Large load', 'Unconfirmed', 'Fog', 'Oncoming vehicle', 'Test', 'Closures/Diversions', 'Visibility', 'Rain', 'Other' and 'Tidal Setting.'

Please note that the spelling of these reasons may differ slightly so it is recommended that users search for parts of words rather then correct spelling.

4.2.7 Initiator Id Type

You can specify a particular initiator id type in which you are interested. Select a specific type from the pick list or select '(ALL)' to search for all values.

Valid values for this field are :- 'CONTROL ROOM', 'OIF', 'AUTO', 'TIMEOUT', 'S', 'NMT' and 'RIF'

4.2.8 Exclude Cleared/Uncleared Faults

For Fault reports you can specify the status of fault to be returned in the Faults reports by choosing the relevant radio button. This is useful if only a certain status of faults are of interest.

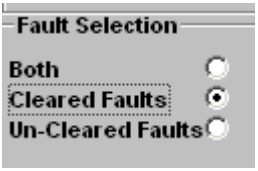


Figure 10 - Return Faults Checkboxes

4.2.9 Inter Faults

For all fault reports, except Multi Clearance, you are able to specify for only INTERMITTENT faults to be returned by checking the Inter Faults Only box.

Figure 11 - Inter Faults Only

4.2.10 Fault Clearance Method

For all fault reports, except Multi Clearance, you are able to retrieve reports with a specific Clearance Method.

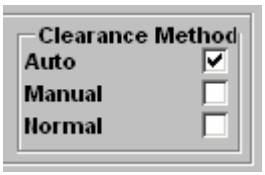


Figure 12 - Fault Clearance Method

4.2.11 Fault Volume Count Range

The High Volume Faults report returns a count on the number of faults per piece of equipment, the fault count range allows you to specify boundary values for this count.

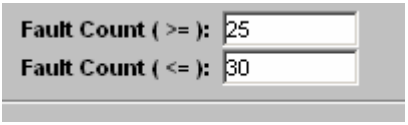


Figure 13 - Fault Count Range

4.2.12 Sign & Signal Utilisation Range

The Sign & Signal Utilisation report returns the On/Off percentage for Signs and Signals. The Sign & Signal Utilisation range allows you to specify boundary values for this percentage.

Figure 14 - Utilisation Range

4.2.13 Telephone Call Details

Incoming and Outgoing telephone logs are classified by HALOGEN as one of the following types :- Invalid, Normal, Overlong Answer, Overlong Duration, Test, Unanswered & Unclassified. The Telephone reports allow you to specify which of these types and call direction you wish to retrieve data for.

Classification of telephone calls is carried out on a daily basis by the HALOGEN database, any calls marked as unclassified have not yet been through this process.

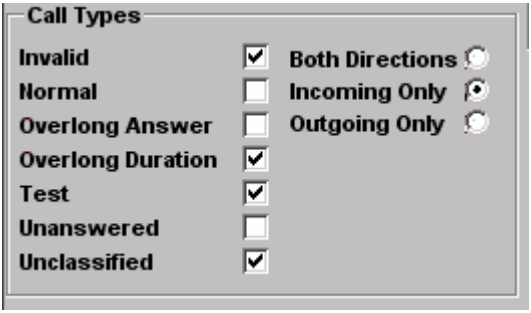


Figure 15 - Telephone Call Types

4.3 Selecting PCOs

You can specify the logging system, or a selection of logging systems, for which you wish to retrieve log data.

The PCO/Event Selector Window displays a list of Police Control Offices (PCOs) with information such as the RMC area of the PCO, the PCO name, the PCO ID number and the PCO abbreviation. The list allows multiple PCOs to be selected by clicking on them. More than one office can be selected by holding down the "CTRL" key and clicking on them, or a list can be chosen by selecting one "beginning" PCO, then by holding down the "SHIFT" key and clicking on an "end" PCO, whereby all offices in between get selected.

The PCO list can be ordered by clicking on the relevant column header. For example to order the list by RMC areas click on the RMC column header. The list will now be ordered in ascending RMC order, clicking the column heading again toggles between ascending and descending order.

This PCO selection list will change to an Exceptions list when the Exceptions Report is being used (refer to Chapter 4.1.2(ii) 'Exceptions Report' for more details).

4.4 Storing Search Criteria & PCO Selections

You are able to specify and store multiple different search criteria and PCO[1] selections for reports. This can be particularly useful for reports which are run frequently, as it allows the criteria to be saved for use another time.

Stored criteria selections are specific to each user and each report. PCO selections are only specific to a user, and the same PCO selections are available to that user in *ALL* relevant reports.

For each report you can store multiple criteria selections, each of which is related to one PCO selection. It is possible to create a different PCO selection for every criteria selection, or to link many criteria selections to the same PCO selection. Note that any change to a PCO selection will affect all reports with criteria which reference that selection.

New or changed criteria and PCO selections are saved explicitly by selecting the appropriate "Save" button, storing them as a background report (refer to Chapter 8 'Background Reporting' for details) or implicitly by selecting the "Run Report" button.

Criteria and PCO selections are numbered, and can be chosen from pick lists located at the bottom of the "Report Selector" window. A short description of the criteria or PCO selection can be entered by the user by clicking on the text field to the right of the selection number. When the description field has become active its background colour will change from blue to white, and a blinking cursor will appear. This means it is now possible to type into this field. Any changes to the description of a selection or the actual criteria or PCO selection can be saved by either clicking the "save" button or by running the current report. Any changes made to the criteria window will NOT be saved if a different report is chosen or another selection is retrieved without specifically saving the previous one.

[1] This will change to an Event selection list when the Exceptions report is used (see Exceptions report section 4.1.2(ii))

When a report is selected for the first time by a user, a new criteria selection will be automatically created. This will be criteria number 1, and its related PCO selection will be the PCO selection currently shown. If there are no PCO selections already created for the user, then a new one will be created and will be PCO selection number 1.

Figure 16 – Default Criteria & PCO Pick List

When a report is run, it is run for the currently shown PCO selection and criteria. If either of these has been changed from their original values then a message box will be shown warning that these changes will be saved.

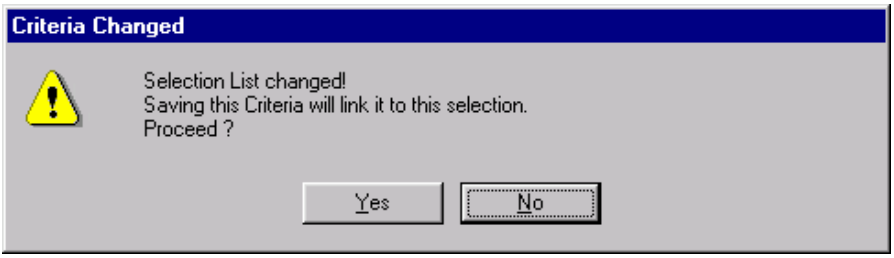


Figure 17 – Criteria Change Message Box

To proceed with running the report click on the “Yes” button, otherwise click on the “No” button. If a user selects “No” then the original criteria will still not be shown. To show the criteria with its original values simply double click on the criteria number from the criteria pick list.

5 Running Your First Report

Once you have selected a report and specified the search criteria needed, click on the “Run Report” button. The HCCA will now open a data retrieval window. This window will send a request to the database to search for data that matches the report criteria. This request can be cancelled at any time by clicking on the “Stop” button on this window. If a report is stopped before any rows are returned then the window will automatically close. If rows have been returned then the window will not close, allowing you to save the results retrieved so far.

It is possible to run more than one report at a time, the database will simply queue these requests. It should be noted that when a report starts to retrieve it is not possible to run another report or to use other HCCA functionality. This is due to the fact most HCCA functionality, including choosing a report, requires retrieval of information from the HALOGEN database and when a report is retrieving rows to the screen the connection to the HALOGEN database is busy.

When the HCCA is searching for data the top of the retrieval window will specify the report start time and database is “Searching for data” and the “Save and Close” buttons will be inactive.

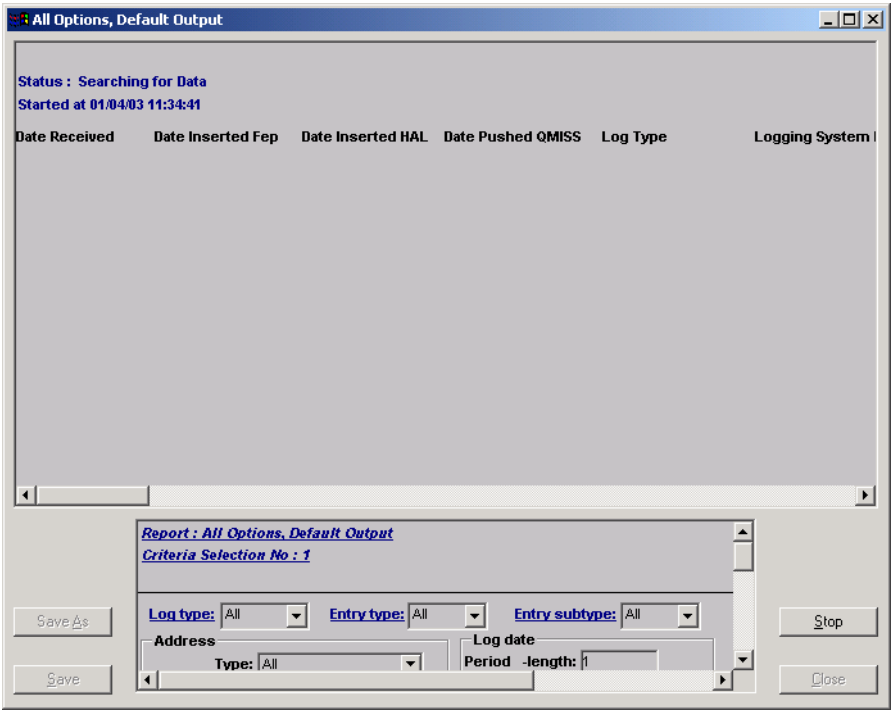


Figure 18 – Data Retrieval Window

When a report starts to retrieve data the status will change to "Retrieving Row " and give the row number of the row being retrieved.

When a report has completed (due to either the stop button being clicked or all rows that match the search criteria being retrieved), the status will change to the number of rows retrieved and the time the report completed.

For a report to run quickly it is recommended that time periods are kept as short as possible, logging systems chosen are kept to a minimum and that specific log types are selected.

.

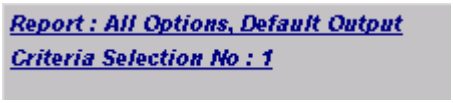
6 Coping With Multiple Search Criteria & PCO Selections

As described in Chapter 4 multiple search criteria and PCO selections can be set up for each HCCA standard and system report. This allows users to create and save frequently used search criteria or PCO selections and recall them when needed.

6.1 Adding new selections

To add a new criteria or PCO selection, click on the "New" button located at the bottom of the pick list on the "Report Selector" window.

The new selection will be given the lowest available selection number. (For example if there are already 3 criteria selections available each numbered 1,2,3 respectively then a new one would be number 4. If the criteria selections were numbered 1,3,4 then the new selection would be number 2). This selection number will appear to the top of the criteria area. All criteria parameters will be set to their default values.



The PCO selection on display will be automatically "linked" to the new criteria selection. To specify a different PCO selection, simply choose another from the PCO pick list or click on the "New" button to create a new selection.

This different PCO selection will only be permanently "linked" to that criteria if the report is run, it is stored as a background report or the "Save" button under the criteria selector is clicked.

A new PCO selection will automatically default to the top entry on the PCO list.

6.2 Retrieving Selections

To retrieve a previously stored criteria or PCO selection, click on the relevant report that you want to run. Select a criteria selection from the criteria pick list area (using the up and down arrows if multiple criteria for that report exist). Double click on the criteria row. The criteria will now retrieve and the PCO selection linked to it will be shown.

If any changes are made to the selected criteria, then these changes will be saved if the report is run or if the criteria selection is saved. If you edit any criteria values, and then retrieve a different criteria selection or choose another report without saving your edits, then all changes will be lost.

6.3 Copying Criteria

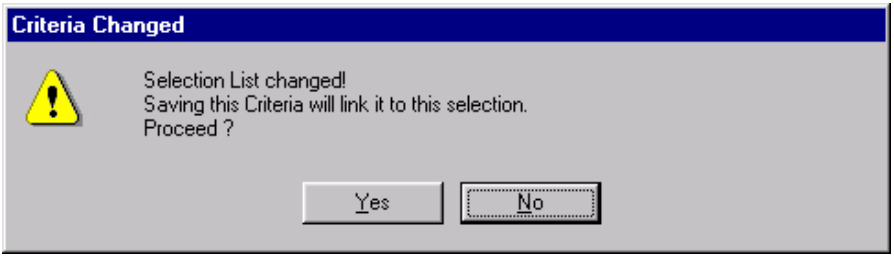
It is possible to create an exact copy of the criteria set up for a report. This is particularly useful where the required criteria are similar, or in some cases the exact same, for more than one report.

Copying criteria creates a new criteria selection from the selection currently shown on the screen. To copy a criteria simply retrieve the criteria you wish to copy, then click on the "Copy" button located at the bottom of the pick list on the "Report Selector" screen.

6.4 Saving Selections

To save a selection, click on the "Save" button located either under the criteria pick list or the PCO pick list.

If a criteria selection is saved then this will save the criteria shown for the chosen report AND "link" it to the PCO selection currently on the screen. If the PCO selection has changed from that originally linked to the criteria selection on display, then a message box will be displayed indicating that there has been a change and asking if the user wishes to proceed.



If a PCO selection is saved then it will only save the PCO selection, it will NOT save any changes made to the displayed criteria selection.

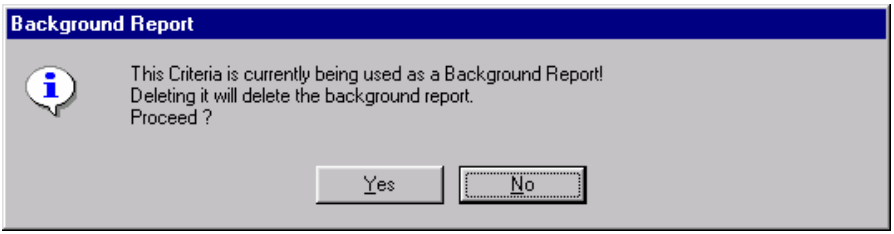
6.5 Deleting Selections

To delete a criteria or PCO selection simply ensure that the selection you wish to delete is currently shown on the screen. You can tell this by looking at the selection numbers on the Criteria and PCO selection windows.

If the criteria and PCO selections shown are not the ones that you want to delete, then the relevant criteria or PCO selection must first be retrieved. (Refer to Chapter 6.2 'Retrieving Selections' for more information).

When you have the criteria or PCO selection that you want to delete, simply click on the "Delete" button under the criteria or PCO pick lists to delete it.

If a criteria or PCO selection is being used by a background report, then a message box will be displayed indicating this. If a PCO selection is being used for another criteria selection or for another report then it cannot be deleted. It will first have to be removed from use in every other instance.



7 Printing a Report

Whenever report results are on display in the Report window, they can be printed at your User Console by selecting “Print” from the File Menu.

The HCCA provides general print options, similar to those provided by standard Windows packages such as Microsoft Word.

To change print options, select “Page Setup” from the Print menu. This allows a user to set margins and the page format (i.e. landscape or portrait). To specify a printer select “Print” from the file menu and click on the “Printer” button.

8 Background Reporting (HCCA Only)

The Background Reporting function enables reports that you require to run regularly, to be run automatically by HALOGEN without user intervention. Reports can be set up to run Daily, Weekly, Monthly, Quarterly or Yearly.

To set up a Background Report, first select the report that you wish to run and specify your required search criteria and PCO selection. Any standard or system report can be set up as a background report. A background report always uses the criteria and linked PCO selection that the user set up for that report. If the stored criteria or PCO selection is changed in any way then the background report will change also, it will run using the modified criteria or PCO values.

In the Background Options (BGO) frame select how often the report should be run from the Frequency pick list, and the format the report should be saved in from the "Extension" pick list. If no extension is specified then the report will be saved in internal HSR format. Click on the "Store" button. There is no need to run the report. It will be run automatically by the HALOGEN Automatic Report Generator.

Every time a background report is run the results will be saved to a file stored on the HALOGEN FTP Server. Every user has a folder on the FTP Server which will store all background reports run for that user. This folder will be automatically created the first time a background report is run. (Refer to Chapter 14 'FTP Server' for details of accessing reports on the FTP Server). Reports will have a filename made up of the report name, the criteria id used (and description if used), the PCO selection id (and description if used) and the date and time used in the actual criteria.

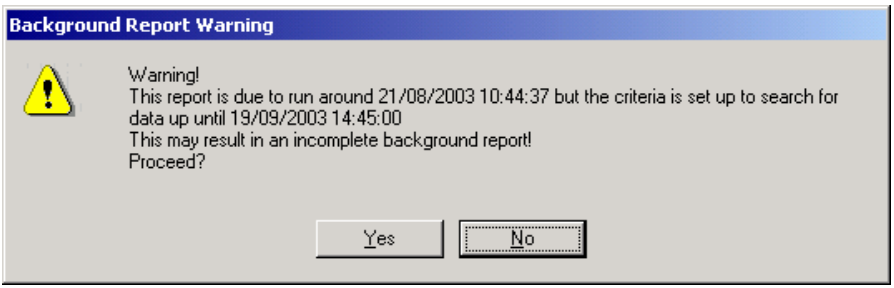
Users are not notified when the report runs and completes, it is assumed that the user will know when the report is due to run and when it should have been completed by. If it appears that the report has not run or data is not as expected

then contact the Mott MacDonald help desk. See section 15 Mott MacDonald Help Desk for details.

To specify at what time the report should commence, enter a value in the “Next Run at” field. This is particularly useful if a user wishes to run a report out of office hours, or using times when it is not possible to access the HCCA machine. If no value is entered into this field then the report will start within a couple of minutes and will be saved on the FTP Server when it has complete.

Users should be aware that any value entered in the “Next Run at” field must be greater than the scope of the report they are setting up. I.E. setting up a monthly report for a months worth of data will not bring back all data if you set it up to run before the month has completed. E.G If you run a report for 1 month of data from the start of this month then you can only get data in the database up until the current time. To ensure this does not happen you must set the “Next Run at” field to be the start of the next month, thus the report will not start until next month and all the previous months data is now available.

Any time the ‘Store’ button is clicked, the HCCA will calculate if there is any chance that the report may be incomplete. It does this by comparing the dates in the criteria and the date the report is due to run at. If there is a discrepancy between these dates then an error message will be shown.



After a background report has completed the background options and criteria for the report will be updated. The next time you open the report the updated values will be shown. The “date last ran” value for this report will be updated to the time

the background report completed, and the date and time criteria will be updated to reflect the date and time that will be used in the next run. For example, if you create a background report to run daily, then after completion the criteria date and time values will be incremented by 1 day.

The date used in "Next Run" value for background options is also updated, it will be the same value as the date and time value used in the criteria for that report. If the report being run contains 2 date searches (as can happen with standard reports, see Chapter 4.2.2 'Time Periods') then as a default the date used in next run will be the same as the "log date" value. If the report is only being run using receipt time, then the date used in next run value will be the same as the receipt time.

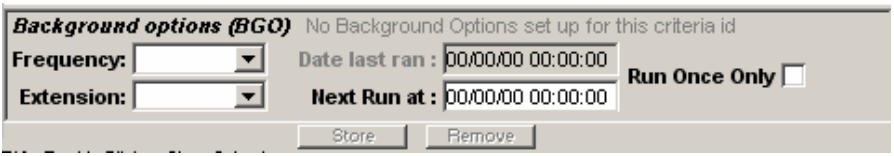


Figure 19 – Background Options

A background report will continually run until the "Next Run at" or the criteria date is in the future. This can result in a lot of reports stored on the FTP server that are of no use as it may only be one report which contains the required data. Therefore it is possible to run a background report once only by selecting the "Run Once Only" checkbox. This will result in the report only running one time then deleting the background options you have set up.

Auto Report Generator checks for new background reports to be run every 60 seconds. If a batch of reports are due to be run for that minute then "Auto Report Generator" will run a maximum of 4 of these reports and queue the rest. When one report completes another from the queue will commence. This will continue until all reports for that minute have been completed.

To disable a background report which you have previously set up, simply select the report from the "Report Selector" menu and click on the "Remove" button on the "BGO" section of the Criteria window.

All completed background reports will be stored on the FTP Server. A user must log on to the FTP Server and FTP the relevant files across to their local hard drive. You cannot view the file directly from the HALOGEN FTP Server, a copy must be stored on your User Console.

9 Developing Your Own Reports

HALOGEN users are provided with sufficient access to the HALOGEN database to define and run their own reports. This is a DIY alternative to requesting ad-hoc reports when suitable pre-defined standard reports are unavailable.

Users wishing to develop their own log data reports will require a suitable reporting writing tool which supports ODBC or JDBC (or Sybase native) connectivity. Additionally a Sybase ODBC /JDBC driver may be required.

Appendix A 'Log Types' lists all log types stored in HALOGEN and identifies the name of the table in which data is stored.

10 Viewing HALOGEN Configuration (HCCA Only)

To view current HALOGEN logging system configuration details, click on the "Configure" menu and select "Logging System", or click on the "Maintain Logging System" icon on the toolbar.

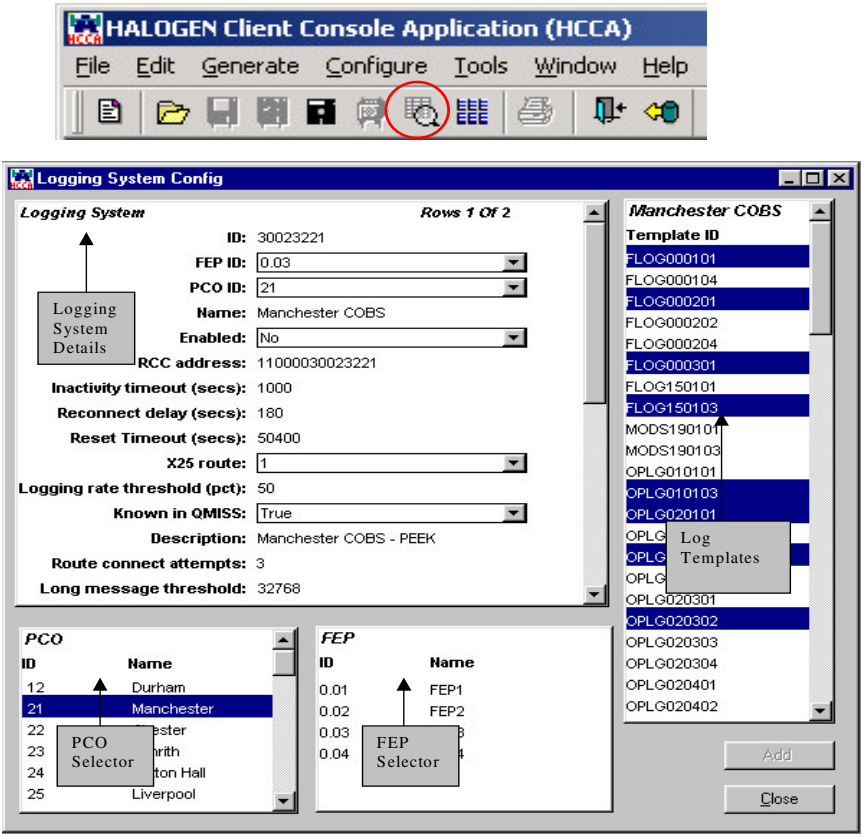


Figure 20 – Configure Logging System Screen

The Maintain Logging system window is split into 4 panes :

1. Logging System Details – This pane allows you to view data associated with a logging system, such as its FEP id , and PCO name etc…
2. Log Templates – This window allows you to view which log types are associated with a logging system. The top of this window shows which logging system the shown templates are for.
3. FEP Id's – This pick list shows all existing FEP Id's
4. PCO Id's – This pick list shows all existing PCO Id's.

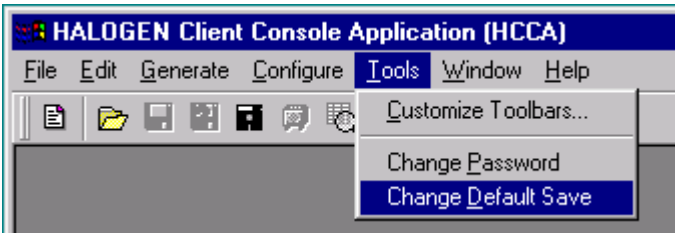
Clicking on a PCO Id will show all logging systems which share that Id in the "Logging System Details" window. It will also show which types of log are sent from this logging system to HALOGEN. Clicking on a FEP Id will show all logging systems which are connected to that FEP.

When the "Logging System Details" window contains more than one logging system, use the arrow buttons to show details of the other logging systems. To view the Log Types this logging system sends to HALOGEN, click on a field in the logging system details window. The log templates associated with this logging system will then be displayed.

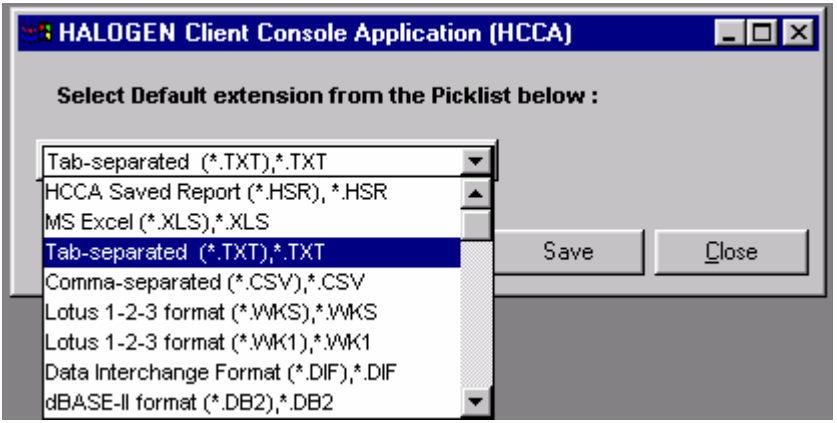
11 Default Save Extension

You can set a default save option for standard and system reports. This saves the need to always pick the same extension type from the save list.

To specify a default save, select “Change Default Save” from the “Tools” menu.

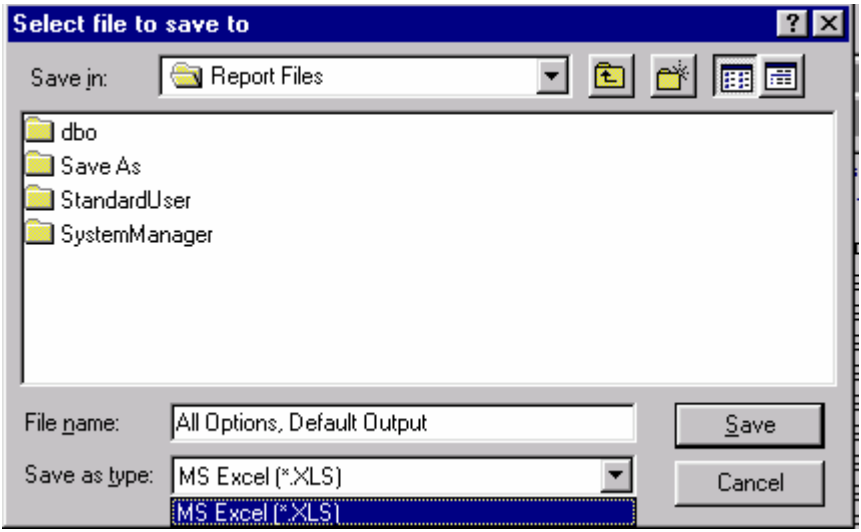


This will show the “Default Save” window. To set a default save value simply choose the extension type required from the pull down menu and then click on the “Save” button. Your default save can be set at any time.



To use your default save, click on the “Save” button on a standard or system report window. This will bring up a standard Windows style save dialog box (the same

as would be shown using the “Save As” option) except the extension type will be defaulted to your current default and no other extension type is available.



12 Password Configuration

Your HCCAI username and password provides access to all the following systems:

- HALOGEN Online (www.HalogenOnline.co.uk)
- HALOGEN Browser
- HCCAI
- Roadside Fault Display (www.rccStatus.org.uk)
- MIDAS Traffic Count Data (www.midas-data.org.uk)

Therefore a central password configuration site is needed as a password change affects all the above systems. This site is the HALOGEN User administration web site and is found at : http://useradmin.HalogenOnline.co.uk.

Please contact the Mott MacDonald Help Desk if you have any questions or problems.

12.1 How Do I change my Password

- Go to http://useradmin.halogenonline.co.uk
- Enter your username and password into the fields provided and click the "Login" button
- Click the "Change Password" link
- Enter your new password into both fields and click "OK"
- Click the "Log Out" link to exit the HALOGEN User Administration web site

13 Reporting HALOGEN Problems

If you have any problems with HALOGEN operation or any queries relating to HALOGEN's facilities then contact the Mott MacDonald Help Desk. The Help Desk contact details are provided in Chapter 15 'Mott MacDonald Help Desk'.

Current HALOGEN problem information can be viewed on the HALOGEN web site at www.halogenonline.co.uk. See the 'HCCA Getting Started' document (56414/TU/004) for more details on the web site.

14 FTP Server

The HALOGEN FTP Server provides users with access to HCCA reports and useful user documentation, such as the HCCA user guide and HALOGEN newsletters.

To connect to the FTP Server a user friendly FTP client should be installed on your PC.

Once you are connected to the FTP Server a login window will be displayed. Simply enter your FTP user name and password and the HALOGEN host address, then click OK. If you do not know your password or the host address, or have difficulty gaining access, then contact the Mott MacDonald Help Desk.

Alternatively you can connect by typing the HALOGEN FTP address into the address field on your web browser. Simply type "FTP:\\username@<host address>" where username is the user name given to you to log into HALOGEN. You will then be prompted for a password. This password is initially set to be the same as your HALOGEN HCCA password, but the FTP account is separate from the HCCA user account and will not change when the HCCA password changes.

Once you are connected to the FTP Server you will be shown the FTP workset directory which will contain all user folders and data relevant to you. These files are read only and must be saved onto your local hard drive before you can view them. It is not possible to directly edit any files on the HALOGEN FTP Server or delete them.

Folders on the FTP Server are not specific to you alone. It is possible to view the contents of other users folders, although it is not possible to edit or delete the contents of these folders.

15 Mott MacDonald Help Desk

Mott MacDonald operates a Help Desk for HALOGEN. The Help Desk should be contacted if you wish to become a HALOGEN user or have any query regarding the HALOGEN system and its functions. The Help Desk will also provide users with general support on using HALOGEN to report on log data.

All HALOGEN faults should be reported via the Help Desk.

The Help Desk contact details are:

Telephone Number:	0141 222 4666
Fax Number:	0141 222 4667
Email Address:	hlp@sas-glas.mottmac.com
Web Site:	www.halogenonline.co.uk

16 Glossary of Terms

BGO	BackGround Options
CLD	Closed
COBS	Control Office Base System
CSV	Comma Separated Values
DIY	Do It Yourself
FEP	Front End Processor
FTP	File Transfer Protocol
HAL ID	HALOGEN Identification number
HCCA	HALOGEN Client Console Application
HSR	HALOGEN Saved Report
HTML	Hyper Text Mark Up Language
INV	Investigated
ISDN	Integrated Services Digital Network
NMCS	National Motorway Communications System
ODBC	Open DataBase Connectivity
OIF	Operator Interface
OPN	Open
PCO	Police Control Office
PSTN	Packet Switched Telephone Network
PVCS	Mott MacDonald's Version Control Software

QMISS	Quantified Motorway Information Supply System
RCC	Regional Communication Controller
SAC	Stand Alone Controller
SVC	Switched Virtual Circuit

Appendix A Log Types

All log fields are formatted as defined in the Highways Agency document MCH 1780 “NMCS2 Logging Formats and Guidelines”.

Log Type	Entry Type	Sub Type	HALOGEN Table Name
FLOG	00	01	EquipmentFault
FLOG	00	02	EquipmentFaultClearance
FLOG	00	03	EquipmentFault
FLOG	00	06	ClearAllFaults
FLOG	15	01	MessageRejection
LIMO	35	01	LinkMonitorEntries
MODS	19	01	MODSentry
OPLG	01	01	Training
OPLG	02	01	SimpleSIGSubProposal
OPLG	02	02	BlockSIGSubProposal
OPLG	02	03	SchemeSUBProposal
OPLG	02	04	SimpleMSSSUBProposal
OPLG	02	05	LightingSUBProposal
OPLG	02	06	TunnelSubProposal
OPLG	02	07	BlockMSSSubProposal
OPLG	03	01	ProposalAction
OPLG	03	02	TidalFlowSUBProposal
OPLG	03	03	DiversionProposalAction
OPLG	03	04	TunnelProposalAction
OPLG	03	05	DartfordVMSPlan
OPLG	03	06	SACProposalAction
OPLG	03	07	ManualProposalAction
OPLG	03	08	MessageSignScheduleAction
OPLG	04	01	DimBright

Log Type	Entry Type	Sub Type	HALOGEN Table Name
OPLG	05	01	SystemTimeChange
OPLG	06	01	CommissioningofDevice
OPLG	06	02	DeviceCommissioning
OPLG	07	01	RemoteMaintenanceCall
OPLG	08	01	DeviceSetting
OPLG	08	02	MessageSignSetting
OPLG	08	03	TrafficLightChange
OPLG	08	04	DeviceSettingRequest
OPLG	08	05	VACsettingRequest
OPLG	08	06	CCTVsettingRequest
OPLG	09	01	DeviceStatusEntry
OPLG	09	02	DeviceStatusEntry
OPLG	09	03	DeviceStatusEntry
OPLG	09	04	DeviceStatusEntry
OPLG	09	05	DeviceStatusChanges
OPLG	09	06	MeteorologyDeviceStatus
OPLG	11	01	MajorFaultAlarm
OPLG	12	01	COBSStartup
OPLG	12	02	SubSystemStartup
OPLG	12	03	TLCstartup
OPLG	12	04	SACstartup
OPLG	12	05	COBSshutdown
OPLG	12	06	COBSInitialisationProgress
OPLG	12	07	SubsystemInitProgress
OPLG	13	01	SchemeCreation
OPLG	13	02	HDSchange
OPLG	13	03	MessageSignScheduleCreation
OPLG	14	01	StationReset
OPLG	16	01	AlertNotification

Log Type	Entry Type	Sub Type	HALOGEN Table Name
OPLG	23	01	Incident
OPLG	23	02	TunnelClosure
OPLG	23	03	BridgeClosure
OPLG	23	04	SACincident
OPLG	23	05	HardShoulderLinkActions
OPLG	23	06	HardShoulderSectionActions
OPLG	24	01	TunnelLocalControl
OPLG	25	01	CenlogBufferOverflow
OPLG	27	01	ManualOverride
OPLG	29	01	SuspectSettingWarning
OPLG	30	01	TIW Occurrence
OPLG	30	02	TIWprocessedLog
OPLG	30	03	EventConfirmationRequest
OPLG	30	04	EventConfirmationReply
OPLG	30	05	EventAlert
OPLG	31	01	VACarbitrationChange
OPLG	31	02	VACaccessChange
OPLG	32	01	TCCI_OIFmodeSetting
OPLG	33	01	TCCI_NewEvent
OPLG	33	02	TCCI_EventUpdate
OPLG	33	03	TCCI_EventClearance
OPLG	34	01	SubProposalProcessFailure
OPLG	34	02	SubProposalFailure
STAT	17	01	DeviceStatus
STAT	17	02	DeviceStatus
STAT	17	03	TelephoneStatus
STAT	17	04	OutstationStatus
STAT	17	07	SubsystemStatus
STAT	17	08	InterfaceStatEntry
SUST	18	01	SUSTentry

Log Type	Entry Type	Sub Type	HALOGEN Table Name
TFLG	00	04	TelephoneFault
TFLG	00	05	TelephoneFaultClearance
TLOG	20	01	TelephoneCallRecord
TLOG	20	02	TelephoneDialogRecord
TSTA	21	01	PhoneStatisticsRecord

Appendix B Exceptions & X25 Error Codes

Message ID	Description	X25 Event
50001	Primary key not found for table %1!	No
50002	Primary key for table %1! has > 1 columns	No
50003	%1! trigger on %2!: Attempt to change multiple rows by %3!. Rolling back.	No
50004	ExecuteSqlScript only executes scripts up to %1! lines long, #SqlScript currently contains %2! lines.	No
50005	HALOGEN test message from %1!.	No
50101	Unknown template ! Unexpected EntryID %1! received from loggingSystem %2!, %3!.	No
51001	Invalid data length for field %1!, for entry %2!. Valid length up to %3! characters.	No
51002	Invalid data for enumerated field with TemplateId %1!, for field %2!. Entry %3! is not valid for this field.	No
51003	Invalid data for datetime field with TemplateId %1!, for field %2!. Entry (%3!) is not a valid date/time.	No
51004	Unable to Rollup Child into parent for field %1!. Creating childId %2! in %3!	No
51005	SybaseJaguar Component %1! cannot be found. Invoked from %2! for HalId %3!	No
51006	Variable %1! with a halID=%2! from FEP%3!, is a NULL value. We expect this to be a Log Data Part	No

Message ID	Description	X25 Event
	message. Using field %4! from parent part.	
51007	Blank datetime received for field %1!. Interpreting as a NULL.	No
51008	An open was issued for logging system %1! when it is already open. Closing and continuing with open.	No
51009	A close was issued for logging system %1! when it is already closed. Ingoring close operation.	No
51010	A FORCED close was issued for logging system %1! The LoggingSystemStatus update will not be replicated.	No
52001	RepServer Status: %1!.	No
52002	Server Status: Failed connection to %1!.	No
52003	Server %1!: Has Become Active.	No
52004	Server %1!: Has Become Dead.	No
52005	Server %1!: Has Become Hung.	No
52006	Server %1!: Has Become Invalid.	No
52007	Server %1!: Has Become Quiesced.	No
52008	Server %1!: Has Become Shutdown.	No
52009	Server %1!: Has Become Suspect.	No
52010	Server %1!: Has Become Unknown.	No
52010	Server %1!: Has a Route problem.	No
52012	Server %1!: Has a Connection problem.	No
52013	Server %1!: Has a exceeded Partition Threshold.	No

Message ID	Description	X25 Event
52014	Server %1!: Has exceeded Queue Latency.	No
52015	Server %1!: Has exceeded Database Latency.	No
53000	FEP Application %s is starting up.	No
53001	FEP Application %s is shutting down.	No
53002	No log messages for %d seconds sending new log request to %s.	No
53003	Bad log message received from loggingSystem %s.	No
53004	Failed to insert log message from loggingSystem %s into log table using Insert%s	No
53005	Duplicate log message received from loggingSystem %s.	No
53006	Log message received out of sequence from loggingSystem %s. expected TID %u, received TID %u.	No
53007	Concatenated log message received from loggingSystem.	No
53008	Switched x25 connection to route %d for loggingSystem %s.	No
53009	Failed to create connection to loggingSystem %s.	Yes
53010	Lost connection to loggingSystem %s.	No
53011	Received %u byte log message from loggingSystem %s.	No
53012	Failed to close connection to loggingSystem %s.	Yes

Message ID	Description	X25 Event
53013	Failed to receive data from loggingSystem %s.	Yes
53014	Failed to send data to loggingSystem %s.	Yes
53015	Failed to initialise x25socket for connection to %s.	Yes
53016	Failed to clear x25socket for connection to %s.	Yes
53017	Successfully established connection to %s.	No
53018	No log messages for %d seconds resetting connection to %s.	No
54001	Dump database successful to %1!	No
54002	Dump database failed to %1!	No
54003	Dump transaction successful to %1!	No
54004	Dump transaction failed to %1!	No
54005	Culled %1! Rows from RawMessage on %2!, retaining %3! Days (> %4!).	No
54006	Storage Threshold eXceeded in database %1!, segment %2!, %3! (2K) pages left, %4!.	No
55001	QMISS Push encountered unknown exception	No
55002	QMISS Push returned failed status	No
55003	Failed to connect to QMISS	No
55004	QMISS Push is starting up.	No
55005	QMISS Push is shutting down	No
55006	QMISS Push returned filtered status	No

Message ID	Description	X25 Event
55007	QMISS Push returned aborted status	No
55008	QMISS Push returned ignored invalid status	No
55009	Lost connection to QMISS	No
55010	Successfully connected to QMISS	No
55011	QMISS Push returned postponed status	No
55012	QMISS Push. Fault matching expired	No
55013	QMISS Push. Fault matching completed	No
56001	Exception thrown by HCCAsevere log fluctuation	No
56011	EquipmentFault mismatch?. EquipmentFaultClearance %1! Of Fault_Id %2! Seems pre-empted in EquipmentFault %3! By EquipmentFaultClearance %4!.	No
56012	Unmatched fault clearance. Cannot match EquipmentFaultClearance %1! Of Fault_Id %2!.	No
56013	TelephoneFault mismatch?. TelephoneFaultClearance %1! Of Fault_Id %2! Seems pre-empted in TelephoneFault %3! By TelephoneFaultClearance %4!.	No
56014	Unmatched fault clearance. Cannot match TelephoneFaultClearance %1! Of Fault_Id %2!.	No
56015	HAL EquipmentFault mismatch?. EquipmentFaultClearance %1! Of Fault_Id %2! Seems pre-empted in EquipmentFault %3! By EquipmentFaultClearance %4!.	No
56016	HAL Unmatched fault clearance. Cannot match	No

Message ID	Description	X25 Event
	EquipmentFaultClearance %1! Of Fault_Id %2!.	
56017	HAL TelephoneFault mismatch?. TelephoneFaultClearance %1! Of Fault_Id %2! Seems pre-empted in TelephoneFault %3! By TelephoneFaultClearance %4!.	No
56018	HAL Unmatched fault clearance. Cannot match TelephoneFaultClearance %1! Of Fault_Id %2!.	No
56020	FEP EquipmentFault matched update Failed for Fault_Id %1! for Clearance_Id %2!. Error Code was %3!	No
56021	FEP EquipmentFault matched update Failed for Clearance_Id %1! for Fault_Id %2!. Error Code was %3!	No
56022	FEP TelephoneFault matched update Failed for Fault_Id %1! for Clearance_Id %2!. Error Code was %3!	No
56023	FEP TelephoneFault matched update Failed for Clearance_Id %1! for Fault_Id %2!. Error Code was %3!	No
57001	Unknown exception when parsing source data	No
57003	Failed to connect to NOMAD	No
57004	NOMAD push service is starting up.	No
57005	NOMAD push service is shutting down	No
57008	NOMAD push service received invalid log	No
57009	Lost connection to NOMAD	No

Message ID	Description	X25 Event
57010	Successfully connected to NOMAD	No