

Location Intelligence
Infrastructure Asset Management

Confirm®

Data Analyser

v26.30a.AM

Information in this document is subject to change without notice and does not represent a commitment on the part of the vendor or its representatives. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, without the written permission of Confirm.

© 2026 Confirm. All rights reserved.

Products named herein may be trademarks of their respective manufacturers and are hereby recognized. Trademarked names are used editorially, to the benefit of the trademark owner, with no intent to infringe on the trademark.

Open Source Attribution Notice

The Confirm suite of products contain the following open source software:

- Feature Data Objects v 3.5.0, which is licensed under GNU Lesser General Public License, Version 2.1, February 1999 with the unRAR restriction. The license can be downloaded from: **http://fdo.osgeo.org/licenceAndGovernance.html**. The source code for this software is available from **http://fdo.osgeo.org/content/fdo-350-downloads**
- MrSID software (specifically the mrsid32.dll) is used under license and is Copyright © 1995-2002, LizardTech, Inc., 1008 Western Ave., Suite 200, Seattle, WA 98104. All rights reserved. MrSID is protected by U.S. Patent No. 5,710,835. Foreign patents are pending. Unauthorized use or duplication prohibited.

  Patented technology in the Software was developed in part through a project at the Los Alamos National Laboratory, funded by the U.S. Government and managed by the University of California. The U.S. Government has reserved rights in the technology, including a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced throughout the world, for or on behalf of the United States, inventions covered by the patent, and has other rights under 35 U.S.C. § 200-212 and applicable implementing regulations.

  For further information, contact Lizardtech.

- NodaTime, version number 1.3.10, which is licensed under the Apache license, version number 2.0. The license can be downloaded from http://www.apache.org/licenses/LICENSE-2.0 . The source code for this software is available from http://nodatime.org/.
- Chromium Embedded Framework, version 3, which is licensed under the New BSD License. The license can be downloaded from http://opensource.org/licenses/BSD-3-Clause. The source code for this software is available from http://code.google.com/p/chromiumembedded/downloads/list.
- Xilium.CefGlue, version 3, which is licensed under the MIT License (with portions licensed under the New BSD License). The licenses can be downloaded from http://opensource.org/licenses/MIT and http://opensource.org/licenses/BSD-3-Clause. The source code for this software is available from http://xilium.bitbucket.org/cefglue/.
- D3 Data Driven Documentation, version 3.4.1, which is licensed under the New BSD License. The license can be downloaded from from https://github.com/mbostock/d3/blob/master/LICENSE. The source code for this software is available from http://d3js.org/.
- OpenLayers, version 8.1, which is licensed under the BSD 2-Clause Licence. The license which can be downloaded from https://github.com/openlayers/openlayers/blob/master/LICENSE.md The source code for this software is available from https://github.com/openlayers/openlayers.
- Proj4js, version 1+, which is licensed under the Apache License, Version 2, January 2004. The license can be downloaded from http://www.apache.org/licenses/LICENSE-2.0.html. The source code for this software is available from http://trac.osgeo.org/proj4js/.
- requireJS, version 2.1.2, which is licensed under the MIT License or the New BSD License. The license can be downloaded from https://github.com/jrburke/requirejs/blob/master/LICENSE. The source code for this software is available from http://requirejs.org/.
- Apache Cordova, version 11.1.0, which is licensed under the Apache License, Version 2, January 2004. The license can be downloaded from http://www.apache.org/licenses/LICENSE-2.0.html. The source code for this software is available from http://phonegap.com/download/.
- Xilium.CefGlue, version 75.1, which is unlicensed. The source code for this software is available from https://gitlab.com/xiliumhq/chromiumembedded/cefglue.

- Chromium Embedded Framework, version 75.0, which is licensed according to the following criteria:

  Copyright (c) 2008-2014 Marshall A. Greenblatt. Portions Copyright (c) 2006-2009 Google Inc. All rights reserved.

  Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

  * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

  * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

  * Neither the name of Google Inc. nor the name Chromium Embedded Framework nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

  THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

  The source code for this software is available from http://opensource.spotify.com/cefbuilds/index.html#

October 02, 2026

Table of Contents

Data Analyser

Introduction 8

Data Analysis 9

- Data Analysis - Data Sets tab 9
- Data Analysis - Network Sections Tab 15
- Data Analysis - Action Button 16

Data Analyser Reports 22

- Street Section Condition Summary 22
- Street Section Current Condition 22
- Multiple Observations List 22
- External Network Section Current Condition 22
- Survey Data Set List 22
- Data Set Process List 22
- Budget Optimisation Report 23
- Survey Treatment Summary 23
- Survey Treatments by

Street Section 23
Strategy Observation list 23
Strategy Treatment list 23
Network Performance List 24
Feature Length by Condition List 24
Network Indicator List 24
Network Survey Maintenance Need Report 25
Network Depreciation Report 26
Network Condition Summary 28
Network Analysis Data Export 28
UKPMS Indicator Reports 28
UKPMS Financial Information 38

Data Analyser Imports 42

Data Analyser Lookups 43
Observation Type 43
Observation Parameter 47
Observation Impact 48
Process Type 49
Index Rule Set 51
Projection Rule Set 55
Treatment Rule Set 56
Transformation Curve 61
SOR Group 62
SOR Item 63
SOR Group Effects 65
Budget Instance 66
Priority 67
Data Analyser System Settings 68
Econometric System Settings 69
Network Analysis Data Export Settings 70
Network Analysis Data Export

Observation Types 70
Survey Seed Numbers 70
Network Indicator System Settings 71
Condition Projection System Settings 72
SCANNER System Settings 72

Data Analyser

In this section

Introduction	8
Data Analysis	9
Data Analyser Reports	22
Data Analyser Imports	42
Data Analyser Lookups	43

Introduction

Data Analysis

Is the core of the Pavement Management System. Without the ability to analyse the data the system becomes just a sophisticated repository for information on the network and the condition data that has been taken. The Confirm Data Transformation Engine is a highly sophisticated system that is able to analyse the data held way beyond the requirements of a standard Pavement management System. As with other parts of the Confirm functionality standard lookups tables or libraries have to be populated before the data analysis can take place.

Data Analyser

Takes selected Inventory and Survey condition data stored in Confirm and carries out calculations and transformations on it. The Data Analyser works by applying processes defined as Process Types to the data. These Process Types are made up using the rules and parameters held in the database. The Process Types are therefore rule sets that can be created by the user, or they can be standard rule sets provided by others (i.e. UKPMS Rules and Parameters). ConfirmPavement Manager stores the rules and parameters as data in the live user database. By storing the rules as data rather than being 'hard coded' in the Confirm software, it is easy for the user to update existing rules, or to modify these rules to suit local conditions and requirements. A rule may be as simple as a short calculation e.g. subtract cracked area from total area, to complex calculations involving multiple sets of data, algebraic operators, logical operators and transformation curves. These more complex operations are typical of those used in the UKPMS rule set to arrive at the required Performance Indicators and Treatment Options.

The data transformation engine that is the central core of the data processing system in Confirm essentially takes a condition data set held as a survey in the database and transforms it into a new data set using the defined rules and parameters. The new data is to all intents and purposes a new set of 'survey' type data. Confirm therefore treats these new data sets in exactly the same way as an original survey data set and uses the same functionality to access and store this data. For this reason, the data analysis functionality uses the concept of viewing and accessing processed data in the same way as original condition data through the same screens and lookups.

For details on producing National Indicator reports see **UKPMS Indicator Reports**.

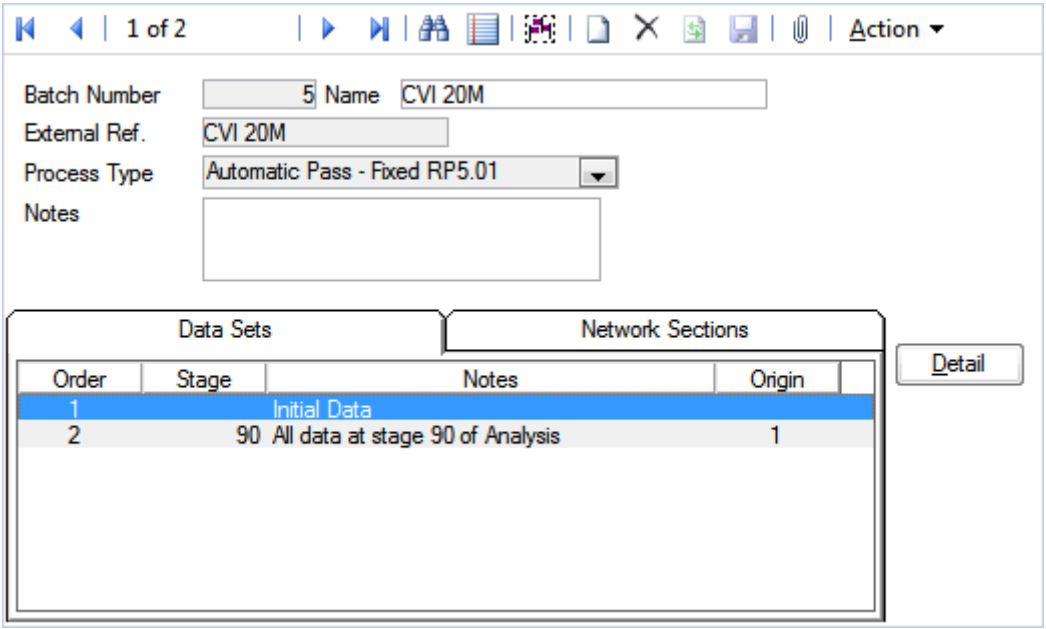
For details on producing financial information for asset management see **UKPMS Financial Information**.

Security of Rules and Parameter Sets

Where the user requires the UKPMS rule set to calculate mandatory government indicators it is essential that the base rule set is not changed in any way. The system security should be set to ensure that the rules and parameters cannot be changed except by properly authorised users. It is further suggested that such users should only have access under a Login name and group that they do not use for normal day to day access. The user may also develop a new set of Rules and Parameters from scratch or import facilities can be used to enter other rule sets that may become available.

Data Analysis

The data Analysis screen is the start point for setting up the data analyser processing in Confirm.



The Data Analysis screen has two tabs Data Sets and Network Sections.

Batch Number:	This number is allocated automatically by the system and is the next available number in the sequence, this number cannot be changed by the user. An attempt to add a new number results a warning.
Name:	A 30 character description as appropriate for each Data Analysis set.
External Ref.:	A 20 character description, this records an external reference for ease of referencing or cross referencing by the user. This is for information only and is not used by Confirm in any processing
Notes:	Notes may be used to enter additional information about the analysis for future reference. This is a free text field of almost unlimited capacity.

Data Analysis - Delete Button

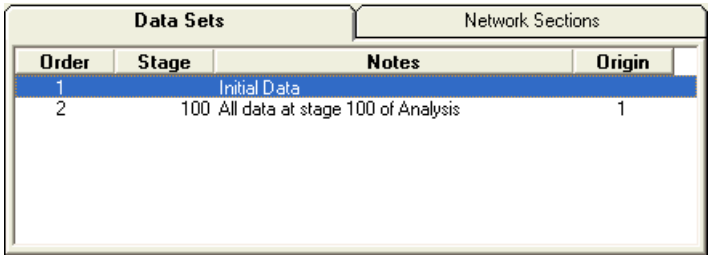
Clicking on the 'Delete' button in the Data Analysis screen entirely deletes the current Data Analysis from the database and the associated network sections, data sets and treatments that may have been saved.

A warning is issued before deletion.

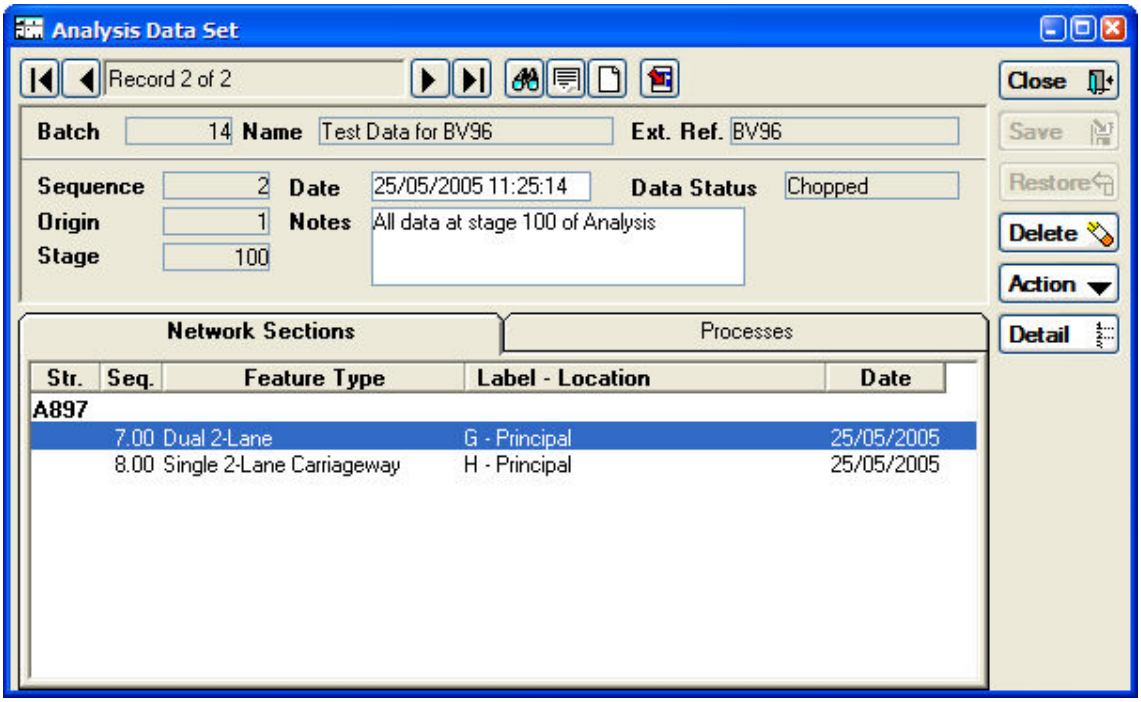
Data Analysis - Data Sets tab

Analysis can be carried out either on the initial data, or on any data sets created during an analysis.

On the Data Analysis form, select the Data Sets tab, and then select the data set from which the data analysis is to be started. If carrying out the analysis for the first time, there will be only one data set i.e. Initial Data.



Press the 'Detail' button and the Analysis Data Set screen is displayed.



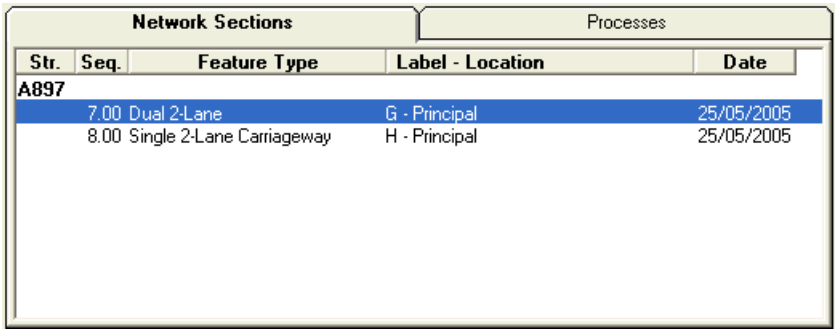
This form displays details of each of the data sets in the analysis.

Batch, Name, Ext. Ref.:	These are all automatically completed from the data entered on the parent Data Analysis screen
Sequence:	Sequence shows the sequence number assigned to the current data set within the analysis by the system.
Origin:	Origin shows the sequence number from which this data set was created. This is therefore blank for the initial data set.
Stage:	Stage shows the stage number in the analysis process at which the data set was created.
Date:	This initially is set to zero, the date can be set as required or will default to the day on which the analysis is first carried out.
Notes:	A free form text description of virtually unlimited length. These are user defined notes to assist in identifying the data and processing as may be required.

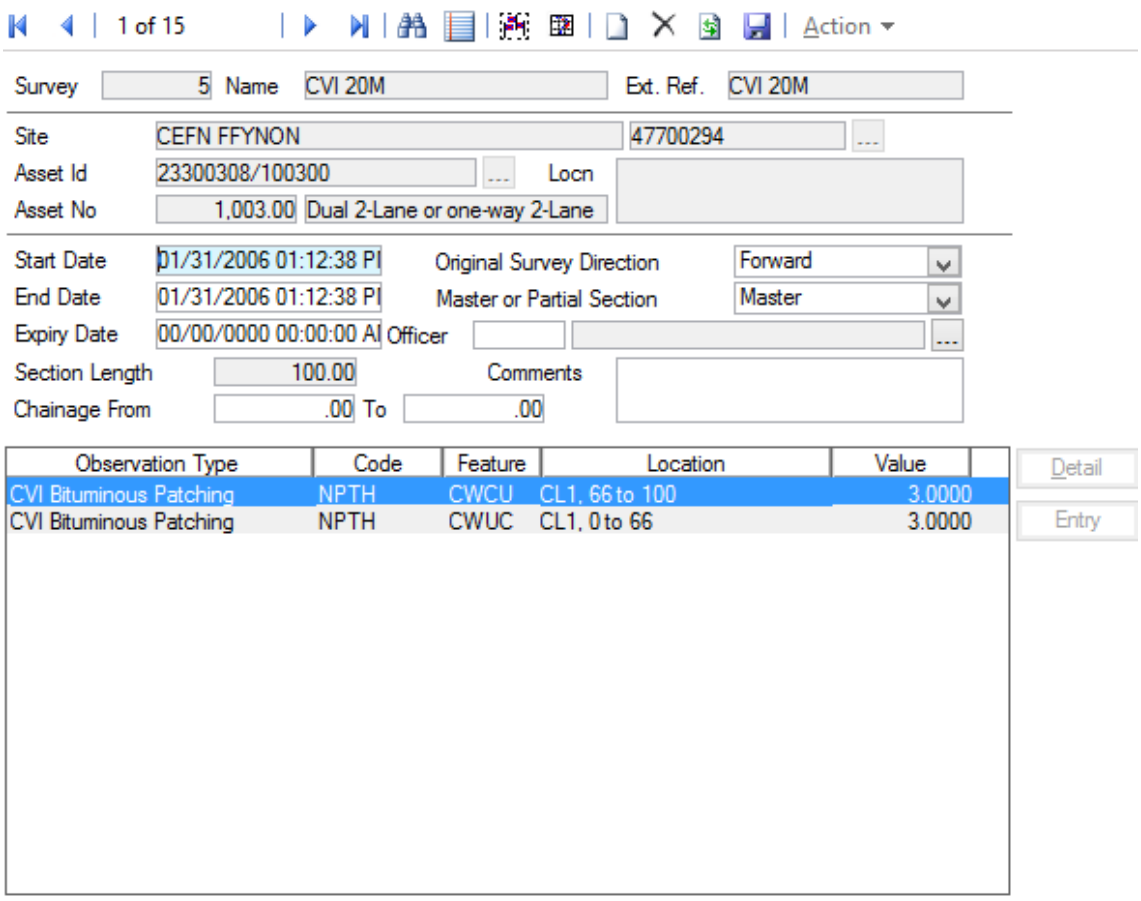
Data Status: This indicates the current status of the data at the stage of processing being viewed. This can be chopped or not chopped.

Analysis Data Set - Network Sections Tab

The Network Sections tab shows the features being analysed.



This will display the Survey Section form.



To enter new network sections, click on the 'Clear/New' button, then choose the section you require, either by typing in entries for one or more of street, label and sequence number, or using the 'Pick' buttons. When the using the 'Pick' buttons it is recommended that the Label 'Pick' button is used as this presents a filter form on which the streets can be filtered as well. If the Street 'Pick' button is used instead, the location still has to be filtered on a separate screen later.

When the Network Section is selected the remaining fields are automatically completed. There is no need to fill in the data in any of the fields in the lower parts of the form.

Pressing the 'Save' button will add the selected section to the list and display a blank form for another entry.

To remove a section from those selected, either use the navigation buttons to locate the required entry, or use the 'Find' button .

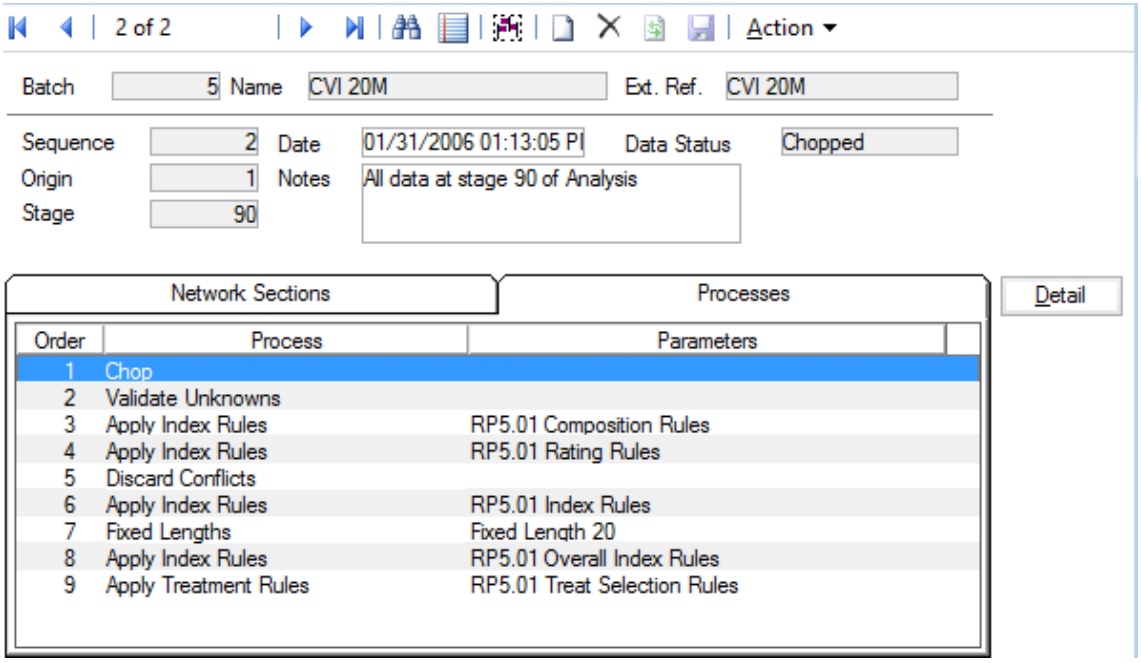
Once the required section is displayed, click on the 'Delete' button and it will be removed from the selection.

When the adding or removing sections has been completed, click on the 'Close' button to return to the Data Analysis form. If the last entered details have not been saved by clicking on the 'Save' button the system will show a warning enabling the user to save the last added data (or not) as may be required.

Analysis Data Set - Processes Tab

The Processes tab shows the processes that have been carried out on the data set to create the current set from its origin set. The order of processing and the Parameters details are also shown.

When looking at an initial data set, there will be no data under processes.



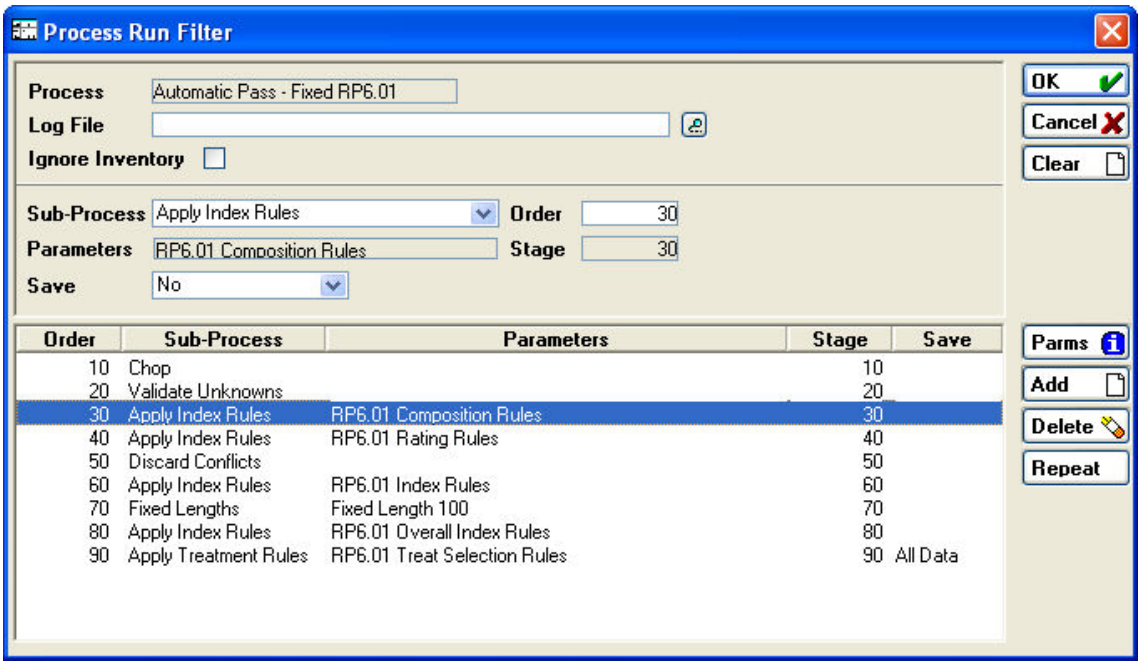
Note: The Detail Button has no effect in the Processes Tab view.

Analysis Data Set - Action Button

There are a number of functions available which are accessed by clicking the Action Button.

Run Processes

Choosing Action, Run Processes will display the Process Run Filter.



Note: FOR PREDEFINED PROCESSES TO CONFORM TO THE SET STANDARDS YOU MUST NOT ALTER THE PROCESSES THAT ARE ALREADY SET.

Process:	Displays the process type defined in the Data Analysis screen.
Log File:	Provides the facility to write a text based output log of analysis activity/steps. This may be useful for checking correct processing of new rules and parameters, or if unexpected results are encountered. Enter a path and file name. If using the Pick button, you must select an existing file to which the log is to be written. **Note:** The log file can become very large where large amounts of processing take place so care needs to be exercised when using this feature.
Ignore Inventory:	By Default, Confirm uses Inventory data to qualify the defectiveness and Feature Group of Observations for Analysis, and also in the estimation of Treatment costs. By ticking this option it is possible to run an Analysis ignoring Inventory data altogether.
Sub-Process:	Shows the action that will be carried out by the process highlighted in the window at the bottom of the screen. The adjacent fields also show the process stage number and a second field to change the process order number. The Sub-Process can be changed using the drop down to any of the available defined types.
Parameters:	Shows the selected parameters where appropriate for the currently selected process. The Parameter may be changed by pressing the Params button. This will bring up the Parameters Screen. From here you can either select from a drop-down list for Rule Sets, or enter values for other Sub-Processes.
Save:	Allows the data save status to be changed at any of the stages using the drop down.

Process Run Filter - Add Button

Clicking on the Add button places a new process record at the end of the processes shown in the bottom part of the screen. The process stage number can be entered but does not alter the process positions shown in the window.

Process Run Filter - Delete Button

Clicking on the Delete button will delete the process currently highlighted in the bottom part of the screen. NB There is no associated warning before the delete action takes place. If a Process is deleted in error the Run Process Filter should be Cancelled and the Process re-started.

Process Run Filter Repeat Button

This button allows stages within the processing to be repeated a number of times. This functionality is not used for Tranche 2 processing.

Process Run Filter - Run Processes

To run the process, click on the OK button The processing will then begin. This may take some time, as a number of operations will have to be carried out on all of the sections selected for processing.

When processing has finished, the system returns to the Analysis Data Set window where now there are more data sets displayed, one for each stage at which data was saved.

Analysis Data Set Processes Tab

When the analysis has been completed the Processes tab on the Analysis Data Set screen displays a list of processes that were carried out on the data between this and the previous set. (For a data set other than the initial set).

A record is saved each time a data set is saved. Examining each of the Analysis Data Set records for an analysis shows the complete set of processes from start to finish.

SCANNER Road Condition Indicator

When running a SCANNER analysis it possible to record intermediate values during the calculation, if appropriate Observation Types exist.

For a Defect involved in the SCANNER calculations, the weighted value will be saved to the Observation Type whose code is 'SW' plus the Defect Code, if it exists. So for example the weighted value of LLRT will appear in the results Data Set as an SWLLRT Observation.

The Family Values generated during the SCANNER calculations will be saved to the Observation Type whose code is 'SF' plus an abbreviation of the Family ID, i.e. Rutting - SFRUTT, Texture - SFTEXT, CrackingWC - SFCWC, CrackingWT - SFCWT, LPV - SFLPV, LPV3 - SFLPV3, and LPV10 - SFLPV1.

Note: Saving the intermediate values may impact the performance of the analysis due to the extra data being saved. Once these Observation Types have been created, it is possible to suppress saving of the intermediate values by setting the Observation Types as Dead.

Cost Codes

Selecting Action, Cost Code in the Analysis Data Set screen displays the Survey Cost Code Batch Filter. This is used to update individual cost codes of generated treatments for individual streets. Refer to the Confirm Site Register Manual section for more details.

Edit Treatments

Use the Edit Treatments option to manually edit details of generated treatments, e.g. to change individual cost codes.

Budget Optimisation

Selecting Action, Budget Optimisation in the Analysis Data Set screen displays the Treatment Optimisation Filter. This is used to prioritise treatments on their ranking and allocate their costs against a set budget.

Save Conditions

Choose "Action/Save Conditions" from the Analysis Data Set screen to create Feature Conditions based on observations, e.g. the Structural Condition Index (aggregated to whole Section length).

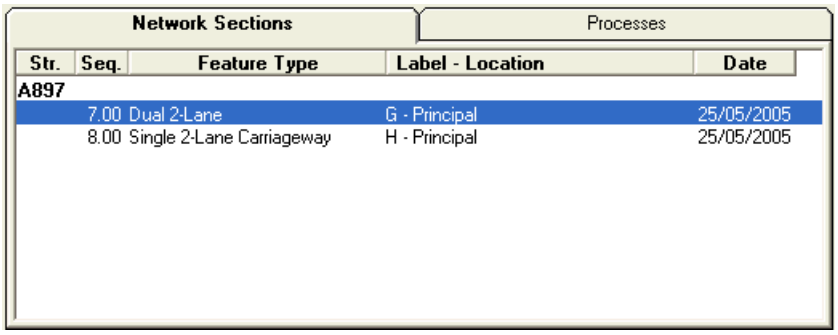
Reset Analysis

Where only some of the saved data sets in an analysis require to be cleared or reset then a Reset Analysis option is available from the Analysis Data Set screen. This feature resets the data set associated with the current Data Set record screen and all subsequent data sets (if any).

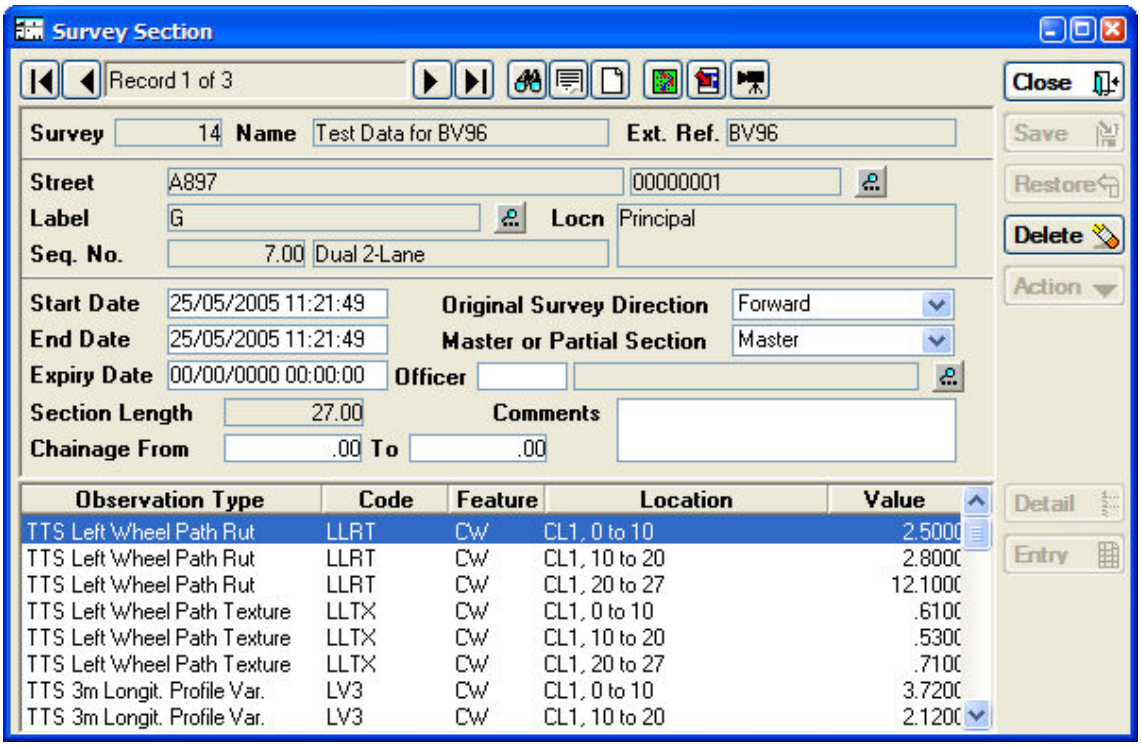
The action of this function and warning screens displayed are the same as from the Data Analysis screen except for the limitation on the data sets that are reset.

Data Analysis - Network Sections Tab

As well as using Batch Add Features, features may be added or deleted one at a time, by selecting the Network Sections tab in the Data Analysis screen and clicking on the Detail button .



This will display the Survey Section form.



To enter new network sections, click on the Clear/New button, then choose the section you require, either by typing in entries for one or more of street, label and sequence number, or using the Pick buttons. When the using the Pick buttons it is recommended that the Label Pick button is used as this presents a filter form on which the streets can be filtered as well. If the Street Pick button is used instead, the location still has to be filtered on a separate screen later.

When the Network Section is selected the remaining fields are automatically completed. There is no need to fill in the data in any of the fields in the lower parts of the form.

Pressing the Save button will add the selected section to the list and display a blank form for another entry.

To remove a section from those selected, either use the navigation buttons to locate the required entry, or use the Binoculars button .

Once the required section is displayed, click on the Delete button and it will be removed from the selection.

When the adding or removing sections has been completed, click on the Close button to return to the Data Analysis form. If the last entered details have not been saved by clicking on the Save button the system will show a warning enabling the user to save the last added data (or not) as may be required.

Data Analysis - Action Button

Batch Add Features

Choosing Action, Batch Add Features from the dropdown menu will display the Feature Filter form, which is used to select the Network Sections to include in the analysis. The features chosen for basic analyses will be the network sections on which the condition data is based, at present Confirm Pavement Manager will only allow the selection of Network Sections no matter which feature group is chosen.

Note: If the Save button has not been used after completing the base information on the form the following warnings are displayed by Confirm as the validation procedures check the data. Firstly, the standard warning asking whether the user intends to save the just entered data is issued.

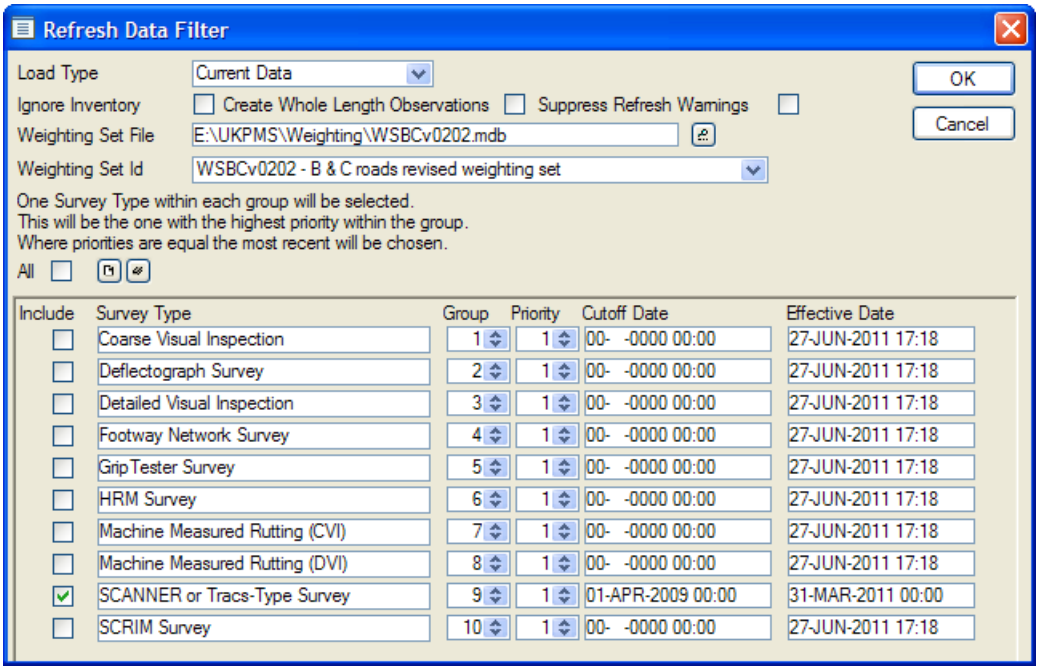
The Batch Add Features option can be used more than once to add Network Sections from different areas or under different lookup headings as required. However, where regular processing of these same sets of sections is to be carried out it is suggested that the Named Selection option is used to enable quick and easy repetition of the same selection. Once saved there is no option to remove sections so if unwanted sections are added the only option is to discard the analysis record and add the sections again.

Only Features classified as “Linear” are added to the analysis, other types are automatically filtered out.

Refresh Data

When all the Network Sections (Features) on which the analysis is to be carried out have been selected, clicking on Action, Refresh Data will display the Refresh Data Filter.

The Refresh Data Filter is used to select and add Survey condition data from the various surveys currently held in Confirm against the Network Sections already selected.



Load Type:	Select one of the following option to specify which data to select for analysis: Current Data – Selects the latest data per Feature/XSP. All Data – Selects all survey data within the specified data ranges.
Ignore Inventory:	By Default, Confirm uses Inventory data to qualify the defectiveness and Feature Group of Observations for Analysis. By ticking this option it is possible to run an Analysis ignoring Inventory data altogether.
Create Whole Length Observations:	Creates an observation on the whole length for each Feature. See **Data Analyser System Settings** for more details.
Suppress Refresh Warnings:	Ticking this option stops logging warnings during Refresh process. It helps speed up the process in case large number of warnings is being recorded.

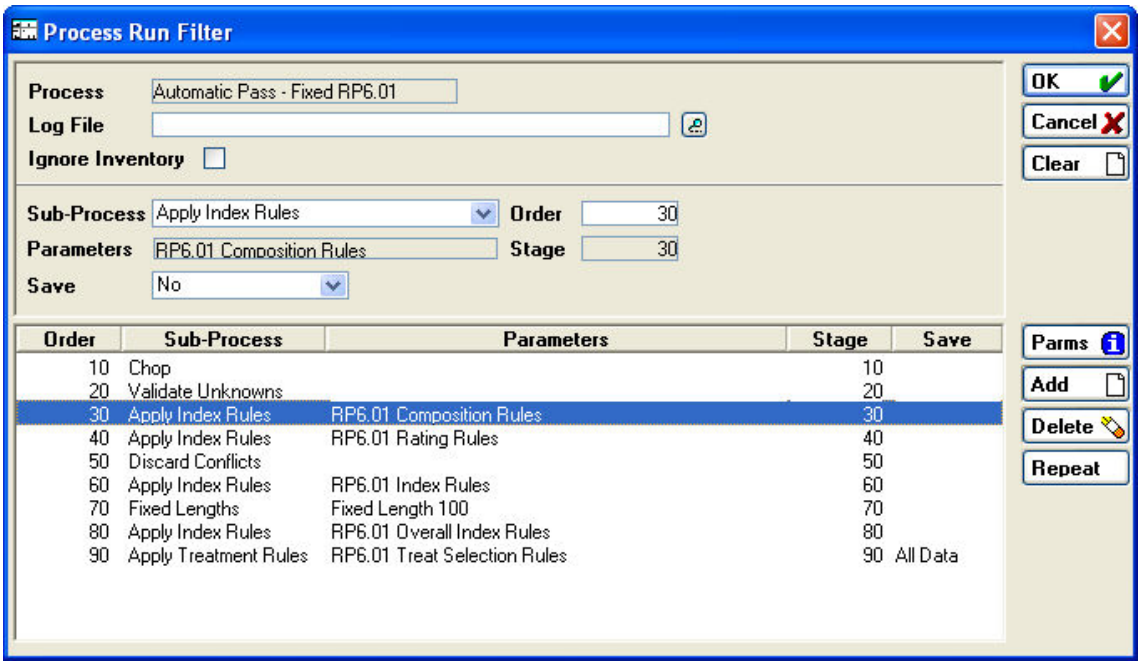
Weighting Set File:	Optionally locate the Access database file containing Weighting Sets for SCANNER Road Condition Indicator analysis. **Note:** If a Weighting Set is specified then only observations required by that Weighting Set will be copied to the Analysis. This significantly improves the performance of the Refresh Data process and requires less database storage.
Weighting Set Id:	Most Weighting Set Files contain a single Weighting Set which will be shown here. In the event of a file containing multiple Weighting Sets, use this to select the correct one.
All:	Select this to tick/un-tick all of the Survey Types in the list below.
Add button:	Click the 'Add' button to add an extra line to the filter. This then allows the User to select an additional Survey Type. The Group and Priority can then be set. The same Survey Type can be allocated to several Groups with different Priorities if required.
Delete button:	Clicking 'Delete' will remove the currently selected Survey Type from the list.

This filter also allows for selection based on groups of various Survey Types. The variables taken into account are the specified Priority within the Group, the specified Effective Dates and the Cutoff Dates.

Include:	Tick the required Survey Types to be included in the Data Analysis. These can be all ticked/un-ticked with the 'All' checkbox.
Survey Type:	Select the required Survey Type in the drop down.
Group:	Supply a numeric value to group the Survey Types. The grouping system is used to allocate Priority to the various Surveys that may be available where the processing to follow requires, say, only the most recent Survey or one particular Survey takes precedence over another based on type and/or age.
Priority:	Supply a numeric value to give this Survey Type a Priority within the Group that it has been assigned to. When refreshing the data, Confirm will look for a Survey from within each Group, starting with the Survey with Priority 1. If no Surveys of that type are located, it will look for a Survey of priority 2. When more than one Survey of the same Priority is found within a Group, the Survey with the most recent date will be chosen.
Cutoff Date:	Supply a Cutoff Date to limit the age of Survey that will be considered by the Analysis. If a date is entered, no Survey carried out before that date will be selected.
Effective Date:	Supply an Effective Date to give Confirm a date at which a Survey needs to have been effective. This defaults to the current date, but may be used, for instance, to run a report showing what condition the network was in at a past date.

Run Processes

Choosing Action, Run Processes will display the Process Run Filter.



Note: FOR PREDEFINED PROCESSES TO CONFORM TO THE SET STANDARDS YOU MUST NOT ALTER THE PROCESSES THAT ARE ALREADY SET.

Process:	Displays the process type defined in the Data Analysis screen.
Log File:	Provides the facility to write a text based output log of analysis activity/steps. This may be useful for checking correct processing of new rules and parameters, or if unexpected results are encountered. Enter a path and file name. If using the Pick button, you must select an existing file to which the log is to be written. **Note:** The log file can become very large where large amounts of processing take place so care needs to be exercised when using this feature.
Ignore Inventory:	By Default, Confirm uses Inventory data to qualify the defectiveness and Feature Group of Observations for Analysis, and also in the estimation of Treatment costs. By ticking this option it is possible to run an Analysis ignoring Inventory data altogether.
Sub-Process:	Shows the action that will be carried out by the process highlighted in the window at the bottom of the screen. The adjacent fields also show the process stage number and a second field to change the process order number. The Sub-Process can be changed using the drop down to any of the available defined types.
Parameters:	Shows the selected parameters where appropriate for the currently selected process. The Parameter may be changed by pressing the Params button. This will bring up the Parameters Screen. From here you can either select from a drop-down list for Rule Sets, or enter values for other Sub-Processes.
Save:	Allows the data save status to be changed at any of the stages using the drop down.

Process Run Filter - Add Button

Clicking on the Add button places a new process record at the end of the processes shown in the bottom part of the screen. The process stage number can be entered but does not alter the process positions shown in the window.

Process Run Filter - Delete Button

Clicking on the Delete button will delete the process currently highlighted in the bottom part of the screen. NB There is no associated warning before the delete action takes place. If a Process is deleted in error the Run Process Filter should be Cancelled and the Process re-started.

Process Run Filter Repeat Button

This button allows stages within the processing to be repeated a number of times. This functionality is not used for Tranche 2 processing.

Process Run Filter - Run Processes

To run the process, click on the OK button The processing will then begin. This may take some time, as a number of operations will have to be carried out on all of the sections selected for processing.

When processing has finished, the system returns to the Analysis Data Set window where now there are more data sets displayed, one for each stage at which data was saved.

Analysis Data Set Processes Tab

When the analysis has been completed the Processes tab on the Analysis Data Set screen displays a list of processes that were carried out on the data between this and the previous set. (For a data set other than the initial set).

A record is saved each time a data set is saved. Examining each of the Analysis Data Set records for an analysis shows the complete set of processes from start to finish.

SCANNER Road Condition Indicator

When running a SCANNER analysis it possible to record intermediate values during the calculation, if appropriate Observation Types exist.

For a Defect involved in the SCANNER calculations, the weighted value will be saved to the Observation Type whose code is 'SW' plus the Defect Code, if it exists. So for example the weighted value of LLRT will appear in the results Data Set as an SWLLRT Observation.

The Family Values generated during the SCANNER calculations will be saved to the Observation Type whose code is 'SF' plus an abbreviation of the Family ID, i.e. Rutting - SFRUTT, Texture - SFTEXT, CrackingWC - SFCWC, CrackingWT - SFCWT, LPV - SFLPV, LPV3 - SFLPV3, and LPV10 - SFLPV1.

Note: Saving the intermediate values may impact the performance of the analysis due to the extra data being saved. Once these Observation Types have been created, it is possible to suppress saving of the intermediate values by setting the Observation Types as Dead.

Add Data from Analysis

This is achieved using the Action button and selecting the Add Data from Analysis option with the Data Sets Tab viewed.

When the Data Set has been selected clicking on the 'OK'button results in any data that exists for the Network Sections selected in the new Data Analysis being copied to the new Initial Data set.

The warning screen detailing the features updated or that no features have been updated is then displayed.

Examining the Initial Data set at the Survey Section screen level shows the addition of the previously analysed data.

Clear Data

Where the Initial Data that has been added to a data analysis needs to be changed the existing data must first be removed. This is achieved using the 'Action'button and selecting the 'Clear Data'option with the Data Sets Tab viewed. The data is then automatically cleared without further warning or user intervention. Alternatively using the 'Refresh Data' option will also clear the existing data.

Reset Analysis

The Clear Data option only operates on clearing the initial data set. If there are saved data sets from processing these have to be cleared before the Initial data set can be cleared or refreshed. The analysed data sets may also be very large and cause the database to become unnecessarily large. The Reset Analysis option provides the facility to delete all the data sets and associated observations apart from the initial data set. Once this action has been carried out the Initial data set can be cleared or refreshed.

This is achieved using the 'Action'button and selecting the 'Reset Analysis'option with the Data Sets Tab viewed. The data is then cleared after issuing a warning.

Data Analyser Reports

The Confirm Data Analyser provides comprehensive reporting facilities to produce text reports from within Confirm and for exporting data to other software products as well as diagrams and spatial representation (GIS) (see **Displaying Linear Feature Data in Map**). The Data Analyser reports can be used in conjunction with the reports available from the Network Manager, Network Reports section.

Street Section Condition Summary

The Street Section Condition Summary provides a report summarising the network condition by Observation Type and Parameter for individual Street Sections and the associated Feature Groups.

The report will list Data Analysis and/or Survey records for a single Survey and Data Set or all Surveys and Data Sets at a time. Use of the Street and Named Selection options on the filter are recommended for the avoidance of excessively large reports.

Note: Survey status must be selected as either 'Loaded into Edit Area' or 'All' for data to be returned.

A similar report, grouped at Network level is available by running the **Network Condition Summary**.

Street Section Current Condition

Completing the appropriate fields to restrict the report listing then clicking on the OK button commences the report processing. In order to report only on structural condition index the correct surveys and observation type should be selected in the filter.

Multiple Observations List

This report can be used to provide a listing of survey observations from either a single survey or a number of surveys or analyses.

External Network Section Current Condition

This report allows reporting on the Current Condition of External Network Sections.

Survey Data Set List

This report may be used to provide a listing of the processed data from analyses, a range of Data set may also be specified.

Data Set Process List

This report is used to list the various stages undertaken by each process of analyses.

Budget Optimisation Report

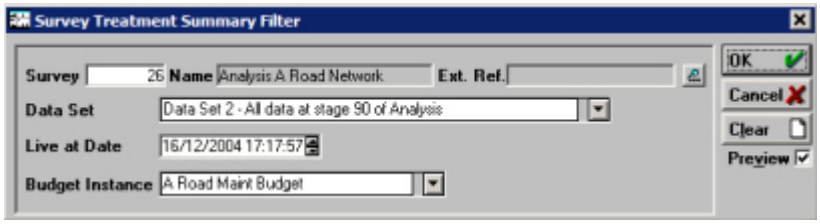
This report is used to provide the priority lists of those parts of the Network requiring treatment. This is essentially the 'worst first' priority listing. It also gives estimated costs for each treatment.

For this report to be used successfully the Data set selected must be one that has Treatment selection processing. For Standard UKPMS processes this is normally the last data set. Additionally the Cost Codes attached to the Network Sections must have been set up, unit costs entered in the Target Cost field of the Treatment SOR item (found under Asset Maintenance on the Confirm Explorer) and a Budget Instance defined.

Once the Budget Optimisation Report has been run, you will be able to save the resulting Funding Status. On exiting the report, the system will prompt you to save changes. Doing so will replace the previous funding status of the treatments.

Survey Treatment Summary

This report provides a summary of the treatment costs against each cost code, indicating the total costs of funded and unfunded treatments.



Survey:	The Survey (Analysis) from which the appropriate treatment data set is to be used is selected by entering a known Survey number or by using the Pick button and associated Survey Lookup table.
Data Set:	The appropriate treatment data set is now selected using the drop down of available data sets. For this report to be used successfully the Data set selected must be one that has Treatment selection processing. For Standard UKPMS processes this is normally data set 5.
Live at Date:	A date can be selected in the usual way to report on historic treatment scenarios.
Budget Instance:	Select the required Budget Instance.

Survey Treatments by Street Section

This report provides a list of all treatments in an analysis dataset, grouped by Section.

Strategy Observation list

This report may be used to provide condition data over time under different treatment strategies.

Strategy Treatment list

This report shows all treatments generated by a strategy.

Network Performance List

This report provides a summary of the average condition over time for different strategies.

Feature Length by Condition List

Similar to the Feature Current Condition report, except a single Observation Type must be selected on the filter. The data is then displayed in descending order of this Observation Type. This report also details Treatments for each length.

Network Indicator List

Used for the production of National Indicator reports. For further details on producing these reports see **UKPMS Indicator Reports**.

It is not used to provide financial information for asset management. For further details about which reports to use for this see **UKPMS Financial Information**.

At the top of the filter, you may select the specific Streets or Network Sections to be reported on. The middle section is used to select the specific Survey data required and the lower section specifies the report that is to be produced and the data that is to be used.

Street:	Individual streets may be selected; this will include all associated Network Sections.
Label Like:	Network Section Labels may be selected individually or in groups by the use of wild card characters e.g. A* to select all Network Sections beginning with A.
Seq. No. From and To:	Used to further refine the selection.
Named Selection:	May be used to select Network Sections grouped by a previously created Named Selection.
Survey:	Up to three Data Analyses may be selected, the results of which will be used to calculate the indicator values. If a Network Section is included on more than one specified Data Analysis, only one will be taken into account. A message will be displayed listing any Network Sections for which this is the case.
Data Set:	The data set may be selected from the drop down window. This must include the Observation Type to be reported on. For UKPMS Condition Indices, this is normally the last Data Set.
Effective Date:	The current date is the default, but may be set to an earlier date.
Report Type:	From the drop down list, choose one of the pre-defined reports, which are detailed in **UKPMS Indicator Reports**. Selecting the Report Type will populate the report specific factors with default values. It will be possible to edit the defaults, however, if any change is made, the report will show 'Customised' to reflect that a non-standard BVPI is being produced.

All Report Types default to showing lengths in kilometres to 3 decimal places. The filter allows lengths to be shown in metres instead of kilometres, however the report will be classed as 'Custom' if this is done.

Note: It is possible to change threshold values but not the Observation Type or operator.

Note: Filter criteria determined directly from the Report Type will be suppressed from appearing as filter criteria on the report itself. However, if a 'Customised' report is chosen, then these criteria will be shown.

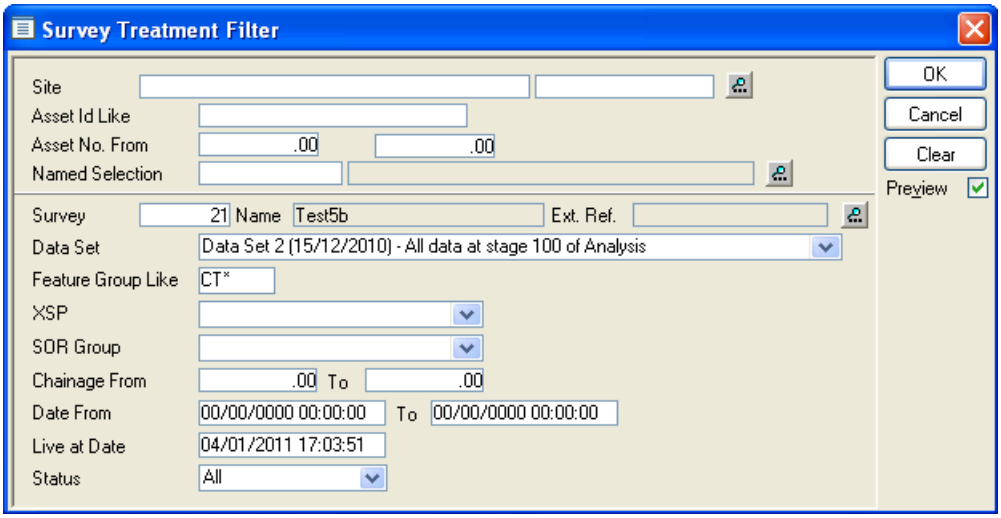
Note: For the SCANNER based performance indicators (NI 168, NI 169, Scotland and Wales), specific Weighting Set files need to be used. These are supplied with Confirm in a 'SCANNER Weighting Sets' zip file. They are also available to be downloaded from the document library of the UKPMS section of the PCIS website (http://www.pcis.org.uk).

Network Survey Maintenance Need Report

This report displays suggested Treatment Information for the surveyed network.

The filter screen for the report is divided into two sections.

The top section allows individual Sites or Features to be selected. It also allows a Named selection to be specified.



The bottom section is where the source of data is selected. The Survey and Data Set details are mandatory. The Feature Group Like refers to the Feature Group of the Survey Observations.

Other fields in this section are:

- **XSP:** The various points on any cross section for a particular section, such as lane edge, kerb, footpath, etc. Here only the Survey Treatment details for the selected XSP type will be displayed.
- **SOR Group:** This corresponds to SOR Group Code for a Survey Treatment.
- **Chainage From and To:** This is used for specifying Survey Treatment Chainage range. Only those Survey Treatment records are retrieved for which end Chainage is greater than the value specified in the To field and start Chainage is less than that specified in the From field.
- **Date From and To:** The Effective Date Range for Survey Treatment.
- **Live at Date:** A date can be selected in the usual way to report on historic treatment scenarios.
- **Status:** Allocated status for Survey Treatment.

For each combination of Feature Hierarchy, Pavement and Generic Treatment the following information is displayed:

- **Treatment Length:** This is the total length of treatments suggested for features with defects.
- **Treatment Area:** This is the total area of suggested treatments.

The report can be used to provide treatment information on many different parts of the network, but its primary purpose is to assist with the provision of financial information for UKPMS to support asset maintenance for footways, cycletracks and paved verges. For further details see **UKPMS Financial Information**.

Network Depreciation Report

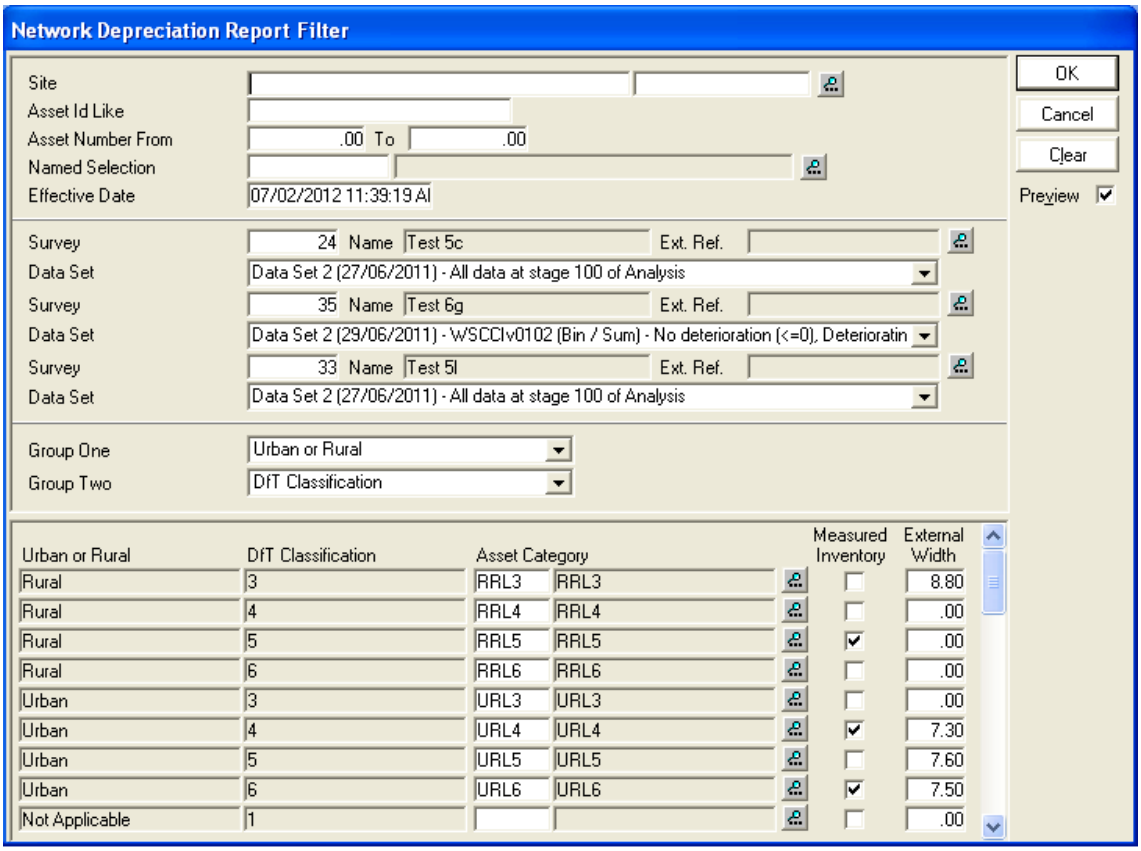
(Asset Valuation module)

This report shows a summary of accumulated depreciation for the network, with summary data shown for groups of data defined by the user.

It can be used in the UK to provide depreciation calculations for Carriageway based on a Carriageway Condition Index (CCI) value derived from SCANNER, CVI or DVI Survey data. For further details see **UKPMS Financial Information**.

The filter screen for the report is divided into three sections. The top section allows Feature selection criteria to be entered. The centre section is used to select the Analysis data to be included. The bottom section allows the user to specify how data in the report is to be grouped, by specifying up to two criteria to define the groups, and how width and depreciation calculations should be carried out for each group.

- **Use Measured Inventory:** If this is ticked the report will attempt to calculate the Average Width for this group based on Inventory data.
- **External Width:** This value will be used if the above is not ticked, and for Features with no Inventory.
- **Asset Category:** This determines the Useful Life, Initiation Period, Replacement Unit Cost, and Residual Unit Cost used in depreciation calculations.



The report displays a row for each combination of the specified grouping criteria. For example if the user chose to define the groups by ‘Urban or Rural’ and by ‘DfT Classification’ there will be one row for ‘Urban’ class ‘3’ Features, one for ‘Urban’ class ‘4’ Features, and so on.

For each combination, the information described below is shown.

- **Network Length:** The total number and length of Features in this group.
- **Average Width:** A representative Average Width for all the Features in the group, used to calculate a total quantity. The report also shows whether, for this group, the Average Width has been derived from Measured Inventory data, an External value entered by the user, or a combination.
- **Initiation Period (T_{INI}):**The time (in years) to when deterioration commences for the Asset Category entered by user.
- **Useful Life (T_{ULF}):**The time (in years) to when the pavement is unserviceable and needs replacement for the Asset Category entered by user.
- **Renewal Unit Rate:** The average surfacing renewal rate. (Replacement Unit Cost – Residual Unit Cost)
- **Survey Coverage:** The length of Features in this group included in the Analysis data, and the percentage of the Network Length in the group that this represents.
- **Depreciation (%):** For each Feature in a group, the report estimates the percentage of the way through its Useful Life the Feature is, based on the Condition value in the Analysis results. The Depreciation (%) shown for each group is the length weighted mean of the values of all Features within the group.
- **Depreciation:** The monetary value represented by the above percentage. This is calculated as (Length x Width x Unit Cost) x Depreciation (%).
- **Annual Depreciation:** The depreciation for one year of life of all Features in the group. This is calculated as (Length x Width x Unit Cost) / Useful Life.

A row of summary values is also shown for the data grouped by each of the selected grouping criteria separately. For example if the user chose to define the groups by ‘Urban or Rural’ and by

'DfT Classification' there will be one summary row for each value of 'Urban or Rural' and also one summary row for each value of 'DfT Classification' in the data.

A single row of overall summary values is also shown.

A particular group may be excluded from the calculation of summary values for Depreciated Value and Annual Depreciation because of two reasons:

- **A warning Message "Excluded - no width available":** Means that an Average Width could not be calculated for the group, because "Measured Inventory" is not ticked or at least one Feature has no Carriageway Inventory, and no External Width is entered.
- **A warning Message "Excluded - no Survey Coverage":** Means that for this particular group no Survey data is available to be used in Depreciation calculations.

Network Condition Summary

This report shows a Condition Summary similar to the **Street Section Condition Summary** on page 22 grouped at Network Level.

Network Analysis Data Export

This utility is for interfacing with HDM4. This exports analysed data to an HDM4 network .dbf file.

Note: This is not used for UKPMS

UKPMS Indicator Reports

Introduction

This guide is to assist in the production of UKPMS reports using Confirm. It provides information on the steps required and links to other relevant sections of the Confirm Help.

The steps to produce most of the UKPMS Indicators are as follows:

- Import the Rules and Parameters
- Import the Survey Data
- Set up a Data Analysis record
- Specify the Features to be included
- Specify the Condition Data to be included
- Run the Analysis
- Generate the report

The importing steps are usually performed just once at the beginning of the process and the analysis and running of the report done for each report required.

Note: The Footway Network Survey Headline Indicator is produced directly from Condition Data without the need to perform a Data Analysis. See the **Footway Network Survey** for more details.

Import the Rules and Parameters

Before performing any UKPMS analysis the Rules and Parameters for the current year must be imported into the database. The Rules and Parameters are provided in Microsoft Access database format and the File is named to reflect the year the rules are designed for (e.g. RP10.01 for use in 2010 and onwards).

See **Data Analyser Imports** for more information.

Import the Survey Data

Survey data should be supplied in HMDIF format and the Importing is explained in the **Import Survey Data** section.

Set up a Data Analysis record

All analysis is done using the **Data Analysis** screen. Set a Name for the new analysis (Batch No. is generated automatically).

Two types of analysis are performed in order to produce the UKPMS reports; Automatic Pass and SCANNER Road condition Indicator analysis. The report being run will determine which type of analysis data is used, but the analysis must be run in advance of the reports being run as the reports simply display the results of the different analysis.

When performing an analysis you must specify how the data will be analysed by setting the 'Process Type'. The analysis for UKPMS requires that the Rules and Parameters for the current year be imported before performing the analysis. There are two types of Automatic Pass analysis in common use by UKPMS; fixed length and variable length. The other process type used by UKPMS is 'SCANNER Road condition'. These types are created automatically by the Rules and Parameters Import and the type required will depend on the report being run.

Specify the Features to be included

A significant amount of processing effort is required to perform the analysis, especially the Automatic Pass analysis, so the processing time can reduced considerably by only running the analysis for the Features that are to be reported on (rather than analyse lots of Features and filter them at the reporting stage). The Features to be analysed are set by the "Action" button "Batch Add Feature" option. This option will display a filter used to restrict the Features that will be included.

Named Selections are the easiest way of adding Features based on a multiple criteria (and the only way when certain Features must be removed from the selection i.e. roundabouts), but where the Feature selection is straightforward they can be filtered here.

The Feature data required by the UKPMS reports is often more varied than can be retrieved in a single filter operation. To overcome this, Named Selections are used to build up a list of the relevant Features by performing multiple filter operations. Further details on creating Named Selections can be found in the **Named Selection Tool** section of the help.

Most Named Selections created for the UKPMS reports will be a collection of one of more DfT classifications (in some databases this is named DOT Classification) , although some also require that roundabouts be removed and some are based on inventory. The particular report section will provide exact details of creating the Named selection for the report.

Note: It is important to remember that a Named Selection is a list of Features retrieved at the time it was created and the filter criteria used to create it is not remembered. This means any Features that are added or removed after creation will not be reflected in the Named Selection.

Specify the Condition Data to be included

Selecting the condition data to be included in the analysis is done using the "Action" button "Refresh Data" option. This will then display the 'Refresh Data' screen where the types of observation data and the date range required can be selected. Each UKPMS report will require specific observation types and ranges. An additional setting on this screen that is sometimes required by the UKPMS reports is the "Ignore Inventory" tick box. Again, whether or not it needs setting will be dependent on the report being run.

For SCANNER analysis, ‘Refresh Data’ can be also performed from **‘Process Run Filter’** before specifying SCANNER Index. This will require parameters like survey type and dates to be specified similar to that on ‘Refresh Data’ screen’.

Run the Analysis

The Analysis is started by first selecting the ‘Initial Data’ on the ‘Data Sets’ tab and then clicking the detail button. This will display the ‘Analysis Data Set’ screen showing all of the Features with condition data that will be included in the analysis. From here select the ‘Action’ buttons ‘Run Processes’ option to open the ‘**Process Run Filter**’ the Analysis is actually started and different options can be set that determine how the analysis will be performed in more detail.

If the report requires that Inventory be ignored then the ‘Ignore Inventory’ option should be ticked, just as it was in the ‘Refresh Data’ screen.

If a SCANNER type analysis is being performed then the Weighting Set to be used must be specified by clicking the ‘Parms’ button and locating the relevant Access database file.

For the UKPMS reports the Sub-Process setting should not be changed from the default.

When the OK button is clicked the Analysis will begin. This can take a considerable amount of time, depending on how many Features and observations there are.

Generate the Reports

Details on producing the individual Indicators can be found in the appropriate report section.

The 130-01 (2013/2014 onwards) Report

This report shows the condition of Principal roads, based on results of a SCANNER Road Condition Analysis. The indicator is the percentage of lengths identified by the analysis as being in the ‘Red’ bin according to a weighted combination of Defect values, reported to the nearest whole number.

The details for producing this report are as follows:

Named Selection	
Add:	
Attribute Type	DfT Classification - Value: 3
then Subtract:	
Feature Type Code	R*
Data Analyser	
Process Type	SCANNER Road Condition
Run Processes (Refresh Data)	
Include	SCANNER or Tracs-Type Survey
Date Range	Last 2 financial years (e.g. 01/Apr/2012 to 31/Mar/2014)
Run Processes (Scanner Index)	
Params	WSPrinv0201.mdb
Network Indicator List Filter	

Named Selection	Select the Named Selection created above
Survey	Select Analysis created from above details
Data Set	Results dataset for the analysis
Effective Date	End of current financial year (e.g. is 31/Mar/2014)
Report Type	130-01 (2013/2014 onwards)
Feature Group Like	Leave as CW*
XSP Code Like	Leave as C*

The 130-02 (2013/2014 onwards) Report

This report shows the condition of Non-Principal Classified roads, based on results of a SCANNER Road Condition Analysis. The indicator is based on the percentage of lengths identified by the analysis as being in the 'Red' bin according to a weighted combination of Defect values, reported to the nearest whole number.

The details for producing this report are as follows:

Named Selection	
Add:	
Attribute Type	DfT Classification - Value: 4
Attribute Type	DfT Classification - Value: 5
then Subtract:	
Feature Type Code	R*
Data Analyser	
Process Type	SCANNER Road Condition
Run Processes (Refresh Data)	
Include	SCANNER or Tracs-Type Survey
Date Range	Last 2 financial years (e.g. 01/Apr/2012 to 31/Mar/2014)
Run Processes (Scanner Index)	
Params	WSBCv0202.mdb
Network Indicator List Filter	
Named Selection	Select the Named Selection created above
Survey	Select Analysis created from above details
Data Set	Results dataset for the analysis
Effective Date	End of current financial year (e.g. 31/Mar/2014)
Report Type	130-02 (2013/2014 onwards)
Feature Group Like	Leave as CW*
XSP Code Like	Leave as C*

The BVPI 187 (2013/2014 onwards) Report

This report shows the condition of Footways, based on results of an Automatic Pass Analysis. The indicator is based on the percentage of lengths where the Overall Condition Index (calculated from visual Survey data) exceeds a threshold value.

The BVPI figure is calculated based on data Surveyed only in the last year. It reports lengths surveyed in the last year and in the analysis period (2 years). For this reason it is important to include the last 2 years in Analysis, and to specify the correct Effective Date (the end of the Survey year) when running the report.

The details for producing this report are as follows :

Named Selection	
Add:	
Attribute Type	Footway Hierarchy - Value: 1A
Attribute Type	Footway Hierarchy - Value: 1
Attribute Type	Footway Hierarchy - Value: 2
Data Analyser	
Process Type	Automatic Pass - Var RP10.01
Refresh Data	
Include	Detailed Visual Inspection
Date Range	Last 2 financial years (e.g. 01/Apr/2012 to 31/Mar/2014)
Network Indicator List Filter	
Named Selection	Select the Named Selection created above
Survey	Select Analysis created from above details
Data Set	Results dataset for the analysis
Effective Date	End of current financial year (e.g. 31/Mar/2014)
Report Type	BVPI 187 (2013/2014 onwards)
Feature Group Like	Leave as FW*
XSP Code Like	Leave blank
Threshold Observation Type(s)	Leave as: OVRLL >= 20

The BVPI 224b (2013/2014 onwards) Report

This report shows the condition of Non-Principal Unclassified roads, based on results of an Automatic Pass Analysis. The indicator is based on the percentage of lengths where any of the Structural, Edge, or Wearing Course Condition Indices (calculated from visual Survey data) exceed threshold values.

The length Surveyed within one year of the Effective date is displayed on this report.

The details for producing this report are as follows:

Named Selection	
Add:	

Attribute Type	DfT Classification - Value: 6
Data Analyser	
Process Type	Automatic Pass - Var RP10.01
Refresh Data	
Include	Coarse Visual Inspection
Date Range	Last 4 financial years (e.g. 01/Apr/2010 to 31/Mar/2014)
Network Indicator List Filter	
Named Selection	Select the Named Selection created above
Survey	Select Analysis created from above details
Data Set	Results dataset for the analysis
Effective Date	End of financial year (e.g. is 31/Mar/2014)
Report Type	BVPI 224b (2013/2014 onwards)
Feature Group Like	Leave as CW*
XSP Code Like	Leave as C*
Threshold Observation Type(s)	Leave as: STRUCT >= 85 WCRSE >= 60 EDGE >= 50

The Scotland SRMCS PI (2013/2014 onwards) Report

This report is based on the SCANNER Road Condition Indicator. The Network Indicator System Settings screen allows entry of network lengths for each combination of Environment and DfT Classification, to be used in calculation of this Performance Indicator.

For this report the Network Lengths first need to be set in the **Network Indicator System Settings** screen. The authority running the reports should have details of the network lengths to be entered .

Named Selection	Created using Feature Filter
Add:	
Attribute Type	DfT Classification - Value: 3,4,5
then Subtract:	
Feature Type Code	R*
Data Analysis	
Process Type	SCANNER Road Condition
Run Processes (Refresh Data)	
Include	SCANNER or Tracs-Type Survey
Date Range	Last 2 calendar years (e.g. 01/Jan/2012 to 31/Dec/2013)
Run Processes (Scanner Index)	
Params	WSAllClassesv0202.mdb
Named Selection	Created using Feature Filter

Add:	
Attribute Type	DfT Classification - Value: 6
then Subtract:	
Feature Type Code	R*
Data Analysis	
Process Type	SCANNER Road Condition
Run Processes (Refresh Data)	
Include	SCANNER or Tracs-Type Survey
Date Range	Last 4 calendar years (e.g. 01/Jan/2010 to 31/Dec/2013)
Run Processes (Scanner Index)	
Params	WSAllClassesv0202.mdb
Network Indicator List Filter	
Named Selection	Select a Named Selection combining the two created above
Survey	Select Analysis created from above details
Data Set	Results dataset for the analysis
Effective Date	End of last calendar year (e.g. 31/Dec/2013)
Report Type	Scotland SRMCS PI (2013/2014 onwards)
Feature Group Like	Leave as CW*
XSP Code Like	Leave as C*
Threshold Observation Type(s)	Not configurable here.

The Northern Ireland PI (2013/2014 onwards) Report

This is an indicator based on the results of a run of an Automatic Pass Analysis, similar to the BV224b.

The details for producing this report are as follows:

Named Selection	
Add:	
Attribute Type	DfT Classification - Value: 6 (Urban)
Data Analysis	
Process Type	Automatic Pass - Var RP10.01
Refresh Data	
Include	'Coarse Visual Inspection'
Date Range	Last calendar year (e.g. 01/Jan/2016 to 31/Dec/2016)
Network Indicator List Filter	

Named Selection	Select the Named Selection created above
Survey	Select Analysis created from above details
Data Set	Results dataset for the analysis
Effective Date	End of last calendar year (e.g. 31/Dec/2016)
Report Type	Northern Ireland PI (2013/2014 onwards)
Feature Group Like	Leave as CW*
XSP Code Like	Leave as C*
Threshold Observation Type(s)	Leave as: STRUCT >= 85 WCRSE >= 60 EDGE >= 50

Note: Named Selection : Attribute Type : DfT Classification - Value 6 was used until financial year 2023

The Northern Ireland SCANNER PI (2013/2014 onwards)

The report shows the condition of Principal A Roads, B and C Roads, and Unclassified Roads, based on results of SCANNER Road Condition Analysis. The indicator is the percentage of lengths identified by the analysis as being in the 'Red' bin according to a weighted combination of Defect values, reported to 1 decimal place. The Northern Ireland SCANNER Performance Indicator value is weighted percentage of individual indicators of A, B, C and U Roads.

The details for producing this report are as follows:

Named Selection	
Add:	
Attribute Type	DfT Classification - Value: 3,4,5,6 (Rural)
then Subtract:	
Feature Type Code	R*
Data Analyser	
Process Type	SCANNER Road Condition
Run Processes (Refresh Data)	
Include	SCANNER or Tracs-Type Survey
Date Range (DfT Class 3)	Last 2 calendar years (e.g. 01/Jan/2019 to 31/Dec/2020)
Date Range (DfT Class 4 and 5)	Last 4 calendar years (e.g. 01/Jan/2017 to 31/Dec/2020)
Date Range (DfT Class 6 (Rural))	From 2024 onwards (e.g. 01/Jan/2024 to 31/Dec/2024)
Run Processes (Scanner Index)	
Params (DfT Class 3)	WSPrinv0201.mdb
Params (DfT Class 4 and 5)	WSBCv0202.mdb

Params (DfT Class 6)	WSAllClassesv0202.mdb
Network Indicator List Filter	
Named Selection	Select the named selection created above
Survey	Select Analysis created from above details
Data Set	Results dataset for the analysis
Effective Date	End of last calendar year (e.g. 31/Dec/2020)
Report Type	Northern Ireland SCANNER PI (2013/2014 onwards)
Feature Group Like	Leave as CW*
XSP Code Like	Leave as C*
Threshold Observation Type(s)	Not configurable here.

Note: Named Selection : Attribute Type : DfT Classification - Value 3,4,5,6 was used until financial year 2023. Run Processes (Refresh Data): Date Range (DfT Class 6): From 2017 onwards (e.g. 01/Jan/2017 to 31/Dec/2020) was used until financial year 2023.

The Wales PAM/020-022 (2019/2020 onwards) Report

The PAM/020-022 report shows the condition of Principal (A) roads, Non-Principal Classified B roads and Non-Principal Classified C roads based on results of a SCANNER Road Condition Analysis. The indicator is the percentage of lengths identified by the analysis as being in the 'Red' bin according to a weighted combination of Defect values, reported to 1 decimal place. Individual Indicators for PAM/020, 021 and 022 are highlighted in bold text.

The THS/012 report (combining THS/011a, 011b and 011c) is still available and the details for producing it are the same as for PAM/020-022. A summary value is not required for PAM/020-022 but is included to allow comparison.

The details for running the three Analyses required, and producing the final report, are as follows:

Named Selection	
Add:	
Attribute Type	DfT Classification - Value: 3,4,5
then Subtract:	
Feature Type Code	R*
Data Analyser	
Process Type	SCANNER Road Condition
Run Processes (Refresh Data)	
Include	SCANNER or Tracs-Type Survey
Date Range (PAM/020)	Last 2 financial years (e.g. 01/Apr/2018 to 31/Mar/2020)
Date Range (PAM/021)	Last 2 financial years (e.g. 01/Apr/2018 to 31/Mar/2020)

Date Range (PAM/022)	Last 4 financial years (e.g. 01/Apr/2016 to 31/Mar/2020)
Run Processes (Scanner Index)	
Params (PAM/020)	WSPrinv0201.mdb
Params (PAM/021)	WSBCv0202.mdb
Params (PAM/022)	WSBCv0202.mdb
Network Indicator List Filter	
Named Selection	Select the Named Selection created as appropriate
Survey	Select the three Analysis records created from above details
Data Set	Results dataset for each Analysis
Effective Date	End of current financial year (e.g. 31/Mar/2020)
Report Type	Wales PAM/020-022 (2019/2020 onwards)
Feature Group Like	Leave as CW*
XSP Code Like	Leave as C*
Threshold Observation Type(s)	Not configurable here.

The Footway Network Survey (2010/2011) Reports

There are two reports to run for the Footway Network Survey, these are:

- **Network Survey Coverage report** which gives information about the footway data which have been collected for the network within given time intervals.
- **Network Survey Coverage Detail report** which gives summary statistics about the quantities of treatment required. The Headline Indicator was defined as the percentage of the footway length surveyed which requires strengthening/renewal or resurfacing treatment.

Neither of these requires any analysis be run.

The reports require financial periods to be configured within Confirm; at least the last two years are required. For information on configuring financial periods look at the **Finance and Budgets** section.

Named Selection	Created using Inventory List
Add:	
Feature Group Like	FW* (for all additions)
Attribute Type	Footway Hierarchy - Value: Prestige Walking Zone
Attribute Type	Footway Hierarchy - Value: Primary Walking Route
Attribute Type	Footway Hierarchy - Value: Secondary Walking Route
Attribute Type	Footway Hierarchy - Value: Link Footways
Attribute Type	Footway Hierarchy - Value: Local Access Footways

Network Survey Coverage Report Filter	
Effective Date	Current date (today)
Survey Date Range	Last 2 financial years (for 2010 select 01/Apr/2009 to 31/Mar/2011)
Survey Type	Footway Network Survey
Report Type	Finance Year Breakdown
Network Survey Coverage Detail Report Filter	
Effective Date	Current date (today)
Survey Date Range	Last 2 financial years (for 2010 select 01/Apr/2009 to 31/Mar/2011)
Survey Type	Footway Network Survey
Observation One	FUAN - As New
Observation Two	FUAI - Aesthetically Impaired
Observation Three	FUFI - Functionally Impaired (tick indicator tick box)
Observation Four	FUSU - Structurally Unsound (tick indicator tick box)

UKPMS Financial Information

Introduction

This guide is to assist in the use of Confirm to produce reports of financial information for asset management in support of the “Code of Practice on Transport Infrastructure Assets: Guidance to Support Asset Management, Financial Management and Reporting” published by CIPFA (2010).

Further information about the specific requirements, including details of the calculations, available from the UK Roads Liaison Group's website (**www.ukroadsliaisongroup.org**):

- Advice Note 9 - Part 1 - Carriageway Depreciation Calculations in UKPMS
- Advice Note 9 - Part 2 - Footway & Cycletrack Depreciation Calculations in UKPMS

There is a separate section explaining how this is done for each of the different types of Inventory.

UKPMS Financial Information for Carriageways

Calculating Accumulated Depreciation

Confirm provides the **Network Depreciation Report** which calculates accumulated depreciation based on Carriageway inventory data combined with a Carriageway Condition Index (CCI) calculated either from SCANNER data or from visual condition data processed using an Automatic Pass.

The report uses the Carriageway Condition Index (CCI) to estimate the age of each part of the Carriageway surface, and then uses that age to calculate the current accumulated depreciation.

Before running the report, it is necessary to decide on the network groupings that will be used to report the results. Typically network groupings will be defined using the combination of the ‘Urban

or Rural' and 'DfT Classification' Attributes. However, they can be defined in different ways, using up to two of the following values:

- Network Priority
- Feature Type
- Urban or Rural
- DfT Classification
- Speed Limit

For each network grouping that will be used, an **Asset Category** needs to be configured. This allows the following values, required by the depreciation calculations, to be specified for each network grouping:

- Renewal Unit Cost – the renewal cost per square metre of pavement
- Useful Life – the number of years after which the pavement is unserviceable and needs to be replaced
- Initiation Period – the number of years after which deterioration commences

Note: The Renewal Unit Cost is actually taken to be the difference between the Replacement Unit Cost and the Residual Unit Cost on the Asset Category screen. The latter can be left as 0.

Note: If two or more network groupings share the same values, a single Asset Category can be specified and used for several network groupings when running the report.

The report also requires an average Carriageway width for each network grouping in order to estimate the total quantity of pavement for that network grouping. The method used to calculate this can be specified when running the report.

For more details on running the report see **Network Depreciation Report**.

Calculating Annual Depreciation

An Annual Depreciation figure for each network group is also shown on the above report.

Inventory Reporting Requirements

The calculation of Gross Replacement Cost is carried out using a spreadsheet available from the CIPFA website (**www.cipfa.org**).

Confirm provides Inventory information to support the calculation of Gross Replacement Cost through means of the **Inventory Summary Report**. For Carriageways, run the report with filter criteria specified as follows:

- Feature Group Like - 'CW*'
- Group One - 'Urban or Rural'
- Group Two - 'DfT Classification'

UKPMS Financial Information for Footways

Depreciation Information

Confirm provides generic reports giving inventory and survey coverage, inventory quantities and treatment quantities. The requirements are based on Inventory data and on FNS, CVI and DVI condition data processed using an Automatic Pass.

These results are intended for use as the basis for the depreciation calculations described in the Transport Infrastructure Assets Code.

Network information and Inventory coverage information is provided through means of the **Inventory Summary Report**. For Footways, run the report with filter criteria specified as follows:

- Feature Group Like - 'FW*'
- Group One - ‘Footway Hierarchy’

The same report can be used to produce more detailed Inventory information, showing total lengths and areas of Inventory broken down by Construction and Classification. Run the report again, with filter criteria specified as follows:

- Feature Group Like - 'FW*'
- Group One - ‘Construction (Inventory)’
- Group One - ‘Classification (Inventory)’

Survey coverage information is provided through means of the **Network Survey Coverage Report**. Run the report with filter criteria specified as follows:

- Survey Date Range - Enter to select several years of data to match authority’s survey timetable
- Feature Group Like - 'FW*’
- Report Type - 'Footway Hierarchy Breakdown'

Treatment information is provided through means of the **Network Survey Maintenance Need Report**. Run the report with filter criteria specified as follows:

- Survey - Select the Automatic Pass record
- Data Set - Select the results Data Set for the Automatic Pass
- Date From / To - Enter to select several years of data to match authority’s survey timetable
- Feature Group Like - 'FW*'

Note that a multiple treatment such as Surface Improvement plus Localised Treatment will contribute to the lengths of both Generic Treatments.

Calculating Annual Depreciation

For bituminous Footways the calculation of annual depreciation is based on a life cycle approach. This is currently outside the scope of UKPMS and Confirm does not contain functionality to support it.

For modular Footways Annual Depreciation is evaluated by considering the area of Footway needing treatment at the previous reporting date and comparing this with the area needing treatment at the current reporting date.

Inventory Reporting Requirements

The calculation of Gross Replacement Cost is carried out using a spreadsheet available from the CIPFA website (**www.cipfa.org**).

Confirm provides Inventory information to support the calculation of Gross Replacement Cost through means of the **Inventory Summary Report**. For Footways, run the report with filter criteria specified as follows:

- Feature Group Like - 'FW*'
- Group One - ‘Classification (Inventory)’
- Group Two - ‘Urban or Rural’

UKPMS Financial Information for Cycle Tracks and Paved Verges

Depreciation Information

Confirm provides generic reports giving inventory and survey coverage, inventory quantities and treatment quantities. The requirements are based on Inventory data and on FNS, CVI and DVI condition data processed using an Automatic Pass.

These results are intended for use as the basis for the depreciation calculations described in the Transport Infrastructure Assets Code.

Network information and Inventory coverage information is provided through means of the **Inventory Summary Report**. For Cycle Tracks or Paved Verges, run the report with filter criteria specified as follows:

- Feature Group Like - 'CT*' or ‘VG*'

The same report can be used to produce more detailed Inventory information, showing total lengths and areas of Inventory broken down by Construction. Run the report again, with filter criteria specified as follows:

- Feature Group Like - 'CT*' or ‘VG*'
- Group One - ‘Construction (Inventory)’

Survey coverage information is provided through means of the **Network Survey Coverage Report**. Run the report with filter criteria specified as follows:

- Survey Date Range - Enter to select several years of data to match authority’s survey timetable
- Feature Group Like - 'CT*' or ‘VG*'
- Report Type - 'Footway Hierarchy Breakdown'

Note that the results are shown broken down by Footway Hierarchy, but only the totals are required.

Treatment information is provided through means of the **Network Survey Maintenance Need Report**. Run the report with filter criteria specified as follows:

- Survey - Select the Automatic Pass record
- Data Set - Select the results Data Set for the Automatic Pass
- Date From / To - Enter to select several years of data to match authority’s survey timetable
- Feature Group Like - 'CT*' or ‘VG*'

Note that a multiple treatment such as Surface Improvement plus Localised Treatment will contribute to the lengths of both Generic Treatments.

Inventory Reporting Requirements

The calculation of Gross Replacement Cost is carried out using a spreadsheet available from the CIPFA website (**www.cipfa.org**).

Confirm provides Inventory information to support the calculation of Gross Replacement Cost through means of the **Inventory Summary Report**. For Cycle Tracks or Paved Verges, run the report with filter criteria specified as follows:

- Feature Group Like - 'CT*' or ‘VG*'
- Group Two - ‘Urban or Rural’
- Group One - ‘Construction (Inventory)’

Data Analyser Imports

The Data Analyser Imports folder contains utilities to import the lookup libraries required for the Data Analyser. Each Utility requires data to be supplied in a format that suits the relevant import specification or database format.

The available Import Utilities are:

Import Rules and Parameters:	New versions of UKPMS Rules and Parameters databases are released by the UKPMS Consultant periodically.These databases are provided on the Confirm media so that this utility can then be used to import the data to set up the lookups in Confirm ready for Data Analysis. The utility will provide a preview report after analysing the new and existing data. Any Errors or Warnings will be displayed to inform the user where inconsistencies exist between the current Confirm data and the data being imported. Where data has been modified, this will be displayed. The imported Rules will not be committed to the database until the Save button is clicked and this will not be available if errors were found. It is not necessary to import the previous versions of the Rules and Parameters before the latest version.
Import Observation Lookups:	New Observation Lookups can be imported. See the **Confirm Import Specification - Document Reference RSH-175-129** for more details.
Import Survey Type:	New Survey Lookups can be imported. See the Confirm PMS Import Specification - Document Reference RSH-186-129.
Import Rule Set:	New Rule Sets can be imported. See the Confirm PMS Import Specification - Document Reference RSH-186-129.
Import SOR Look-ups & Items:	New SOR Lookups can be imported. See the **Confirm Import Specification - Document Reference RSH-175-129** for more details.
Import Projection Lookups:	New Projection Lookups can be imported. See the Confirm PMS Import Specification - Document Reference RSH-186-129.
Import Survey Treatments:	New Survey Treatment Lookups can be imported. See the Confirm PMS Import Specification - Document Reference RSH-186-129.

Data Analyser Lookups

Data Analyser Lookups are the lookups or libraries required to create a data analysis process. They contain the rules and parameters that form the algorithms used by the system. For standard UKPMS Rules & Parameters processing, all the lookups are populated with the current UKPMS rule set.

Where the user requires to carry out differing analyses using other rules and parameters then the existing Rule Set can be copied and the data in the copied set may be added to and edited as required. Confirm can hold as many rule sets as the user requires therefore it is recommend that the base rule set is not altered.

The Data Analyser operates on the survey condition data held in the database using the network section and inventory data in conjunction with the rules and parameters set. The analysed data produced is essentially modified condition data and is therefore logically held in the same form as condition data. For this reason the analysed data is held, edited and reported on in the same way as survey data using the same screens. It therefore also follows that the Data Analyser Lookups that refer to data held in this way are the same as or an extension of the Survey Lookups.

In the following section on the Data Analyser Lookups those lookup tables that correspond to the Survey Lookups are repeated in exactly the same detail as in the Survey Lookups section.

Please refer to the Condition Survey manual for details on Observation Type, Parameter and Impact. Please refer to the Asset Maintenance Manual for details on SOR Item and SOR Group.

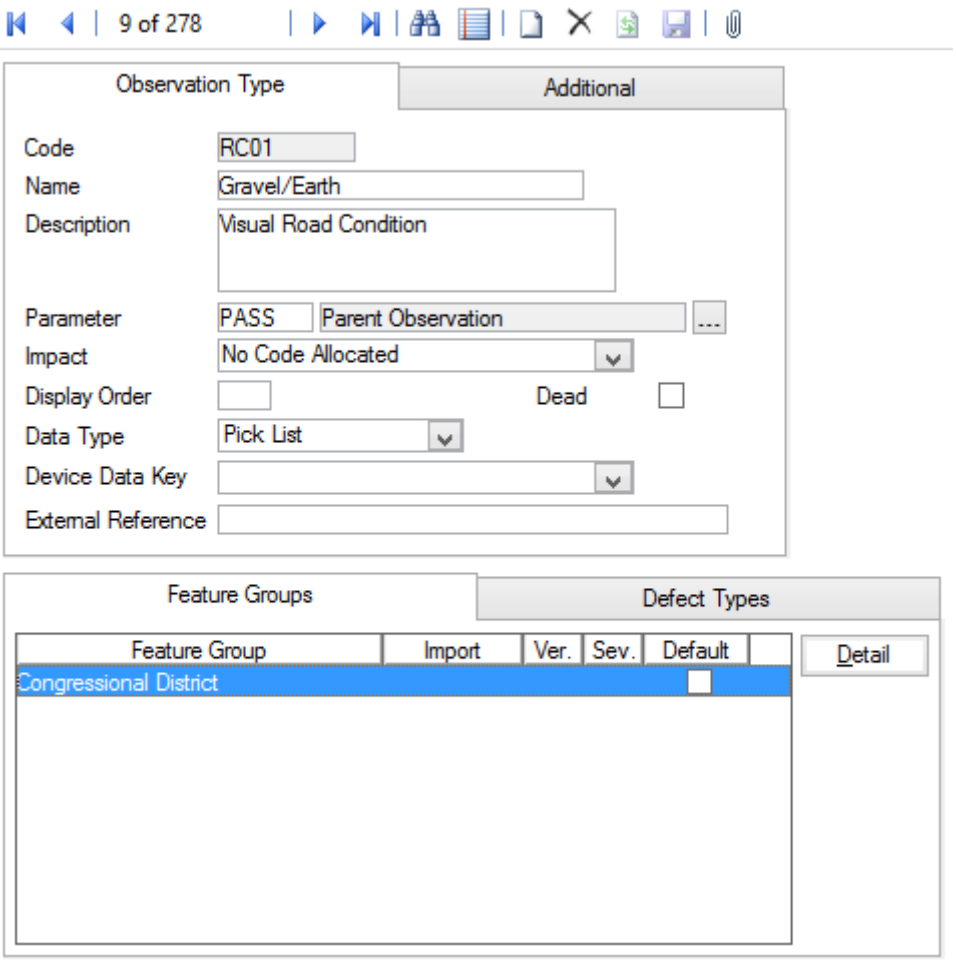
Observation Type

Observation Type, used in conjunction with Observation Parameter and Observation Impact, set up the parameters for judging the condition of a Feature.

Where Observation Types are being used in the Risk module Observation Types define the Failure Modes, or the manner in which an Asset may fail, for example 'Structural', 'Capacity'.

Observations are usually carried out as part of a Condition Survey inspection (Condition Survey module). However, details for Feature condition can be entered directly against Features in the Asset Register, even when the Condition Survey module is not present.

The Observation Type will list the Condition Types that will be judged for a Feature.



Code:	Up to six alphanumeric characters.
Name:	Up to thirty characters
Description:	An optional, free text field. This is used in ConfirmConnect® so that further information can be provided about the Observation Type in order to aid the setting of the value.
Parameter:	Select from the pick list, the Parameter list that will be used in conjunction with this Type. The pick list references the Observation Parameter lookups
Impact:	Select, from the drop down list, the Observation Impact that applies to this Type. The drop down list references the Observation Impact Lookup.
Display Order:	Affects the order in which the Type appears in the Feature Condition screen. A type numbered 1 will appear at the top of the numbered list, a Type numbered 9999 will appear at the bottom. Unnumbered Types will be listed before numbered ones.
Data Type:	Select from: 'Pick List' - To make Condition Grade selections from the pick list of available parameter descriptions. 'Numerical Value' - To assign Condition Grade by entering a numerical value within the minimum and maximum score assigned to parameters.
Device Data Key:	Optionally specify a Device Data Key.

ConfirmConnect® **user** whose **data security group** includes view access to this data security key will be able to view this observation type on their Condition Survey tasks.

Note: Leaving this field blank will allow all users to view this observation type in ConfirmConnect®.

External Reference: (Condition Survey - BCI Reports module)

This field is used when creating the mapping between 'Full Name of Element' to 'Component/Material Type' and 'Proximity to Traffic Spray Zone'. See **Structure Toolkit Export System Settings** for full details on configuring your Structures data.

Observation Type - Feature Groups

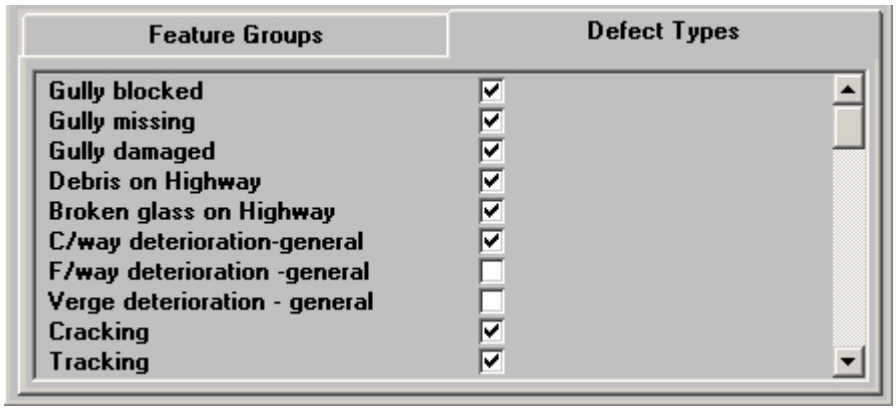
Observation Types can be assigned to Features manually on the Feature screen, by association with a **Feature Group - Conditions tab**, or by using the **Allocate Condition Values**.

Feature Group: Click on the 'Detail' button to display Observation Type Feature Group form. Use the Drop down to add a Feature Group. The drop down list references the Feature Group lookup.

Note: An Observation Type can also be linked to a Group through the **Feature Group - Conditions tab** lookup.

Note: The screen also shows the UKPMS Defect Code and Severity details for this Observation Type and Feature Group combination. The information is not editable here but is maintained through the Observation Import Codes screen.

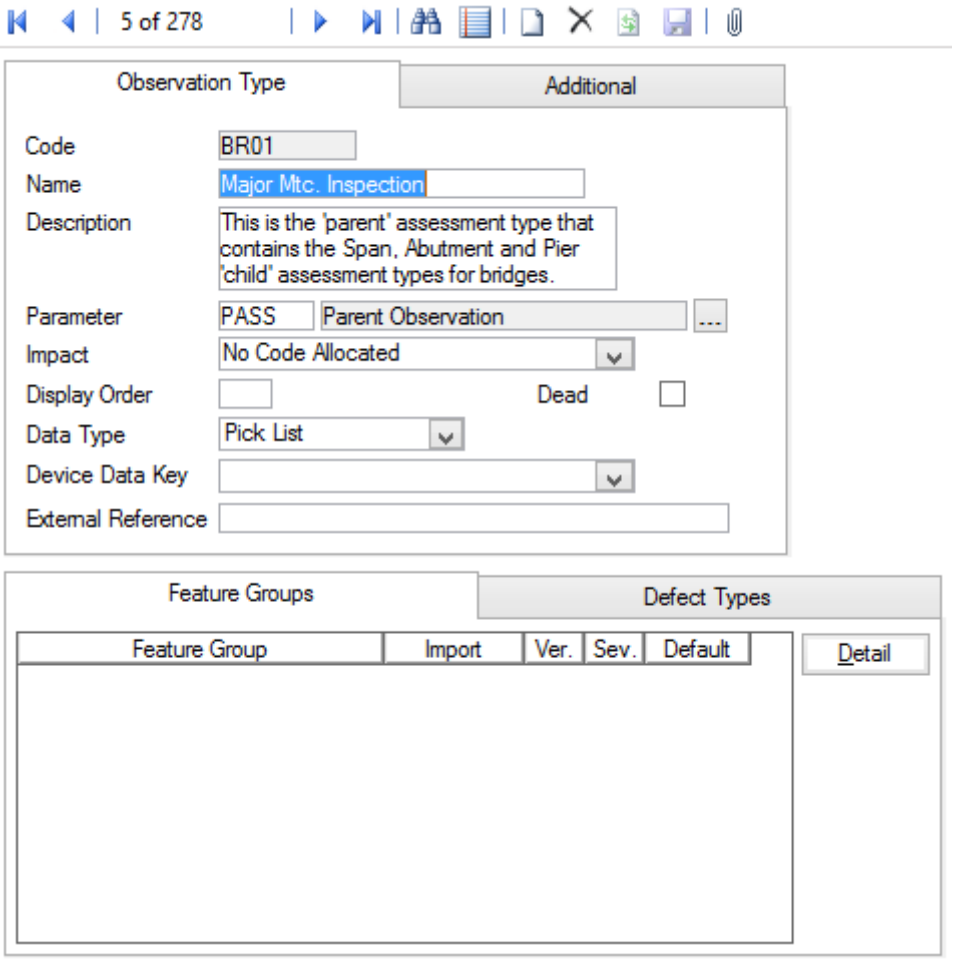
Observation Type - Defect Types



It is possible to associate Defect Types with the current Observation Type so that when this Observation Type is entered in the Defect screen the selection of Defect Types is limited to those checked here. This restriction will be applied when raising Defects directly in Confirm and when using ConfirmConnect®.

The Observation Types Defect Type tab lists all the Defects contained in the Defect library, none of which are checked by default. Check those that may be used when this Observation Type is used.

Observation Type - Additional tab



Aggregation: Only relevant for the PMS Linear Assets module, this can be ignored for all other users.

Select the method by which Observations of this Type being entered are combined when fitting them to fixed lengths, merging etc. Length Weighted Mean is the normal or most usual form of Aggregation for UKPMS.

Default Value: The numerical value that is assigned to this observation type as a default. (If other than zero).

Condition Assessment: Checked by default, and should not normally be changed.

Failure Mode: (Activity Log and Risk Assessment modules)

Check this for Observation Types that are being used for Risk Assessment, or for recording a Failure type in the Activity Log.

Store Zero Values: (PMS)

Determines if the database will ignore zero values (the default), or, when checked, will actually store zeros as a legitimate data value.

Functional Defect: (PMS)

When checked, during Data Analysis processes, all Observations will automatically break wherever any Functional Defect changes. Functional Defects

are relevant only in Automatic Condition Based Analysis processing and beyond.

Note: Functional Defects are defects that are not rated but a treatment is selected. e.g. SCRIM threshold.

Base Date: (PMS)

Base Date is for use with Tranche 3 functionality - see relevant documentation for more details.

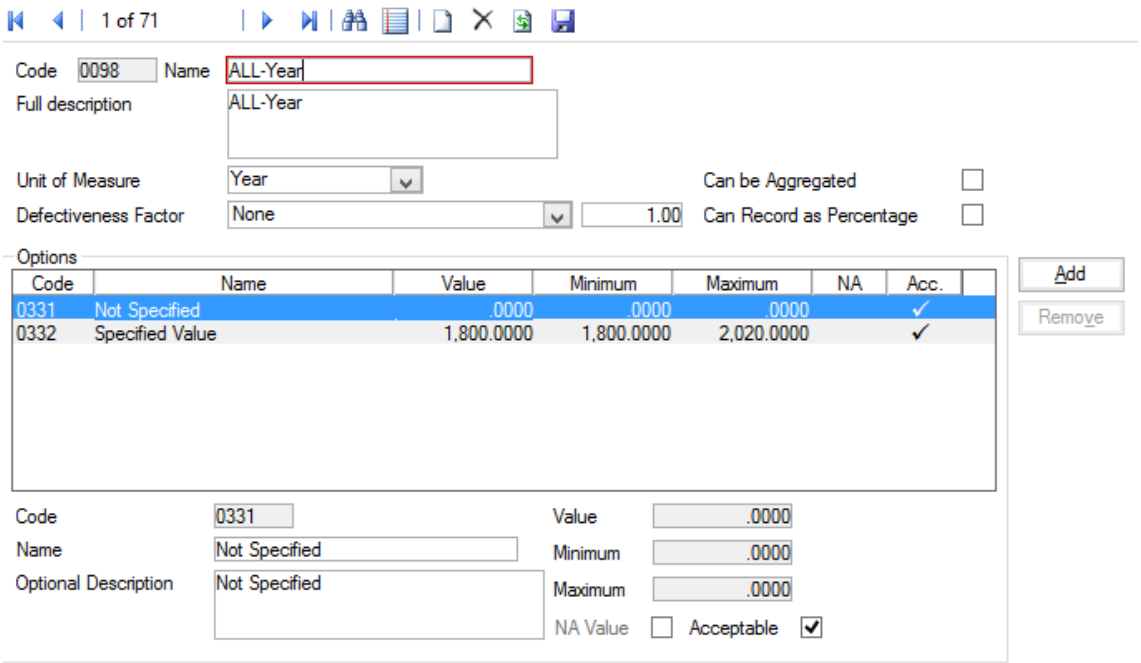
Observation Parameter

The Observation Parameters are the 'grades' that can be assigned to different Observation Types. Many of the conditions (Observation Types) that may be observed on a defect will be identical for many different Observation Types e.g. 'Good', 'Fair' and 'Poor'. By using Observation Parameters these grades only need be defined once and used on multiple Observations Types.

In addition to setting out the condition grades the Parameters allow for these grades to be scored. The score is also used to provide a ‘Condition Rating’ for the Feature and does this by applying a weighted value within a Feature Group e.g. a grade of 'Fair' providing a score of 5 will be multiplied by the weighted value specified in the Feature Group to provide a higher or lower score that contributes to the Features overall ‘Condition Rating’.

Where Performance Monitoring is being used to monitor Features, as opposed to monitoring Works, the assigned grade can be used to generate Failure Notices, based on the value of the ‘Acceptable’ flag for the grade.

Note: Once created an Observation Parameter may continue to be changed until it is used. Once in use the value fields will no longer be editable and it may not be possible to add more Options.



Code: Up to four alphanumeric characters

Name: Up to 30 characters

Full Description:	An optional free-text field. This is used in ConfirmConnect® so that further information can be provided about the Observation Parameter in order to aid the setting of the value.
Unit of Measure:	You may optionally select a unit of Measure for the scoring ('Percent' for instance, if the score values represent percentages, or 'Number' if the scores represent number of problems found in the asset).
Defectiveness Factor:	(PMS - Observation Data - Module 4010) This can be used to modify the score value to provide a number or percentage where the scoring is based on a length or area. Select the type of Defectiveness Factor from the drop down list and enter the Defectiveness Factor value in the adjacent field.
Can be Aggregated:	(PMS - Observation Data - Module 4010) This checkbox is ticked where aggregation of this Observation Parameter is allowed.
Can Record as Percentage:	(PMS - Observation Data - Module 4010) This checkbox is ticked where the Defectiveness Factor can be recorded as a percentage rather than a pure number.

The lower portion of the form, entitled 'Options' is for the entry of each of the values that this Parameter will use.

Code:	Up to four alphanumeric characters
Name:	Up to 30 characters
Option Description:	An optional free-text field
Value:	A numerical value may be optionally entered for this parameter option. If a value is set, this will be assigned by default to any Feature that acquires this Parameter Option. These Scores may be altered for any individual Feature within the Minimum and Maximum values set in the Minimum and Maximum fields. The value may be equal to the Minimum value but may only be equal to the Maximum value on the last option or if there is no difference between the Minimum and the Maximum values.
Minimum\ Maximum:	These fields are used to set the maximum and minimum scores that may be set for Features acquiring this Parameter Option.
NA Value:	Flag the 'Option' that will be used when the Feature does not currently carry a Grade. It is required that one Option be flagged as NA.
Acceptable:	(Performance Monitoring) All Parameter Values are flagged as 'Acceptable' by default. The flag is removed for those Parameter Values that will attract a Failure under Feature Monitoring.

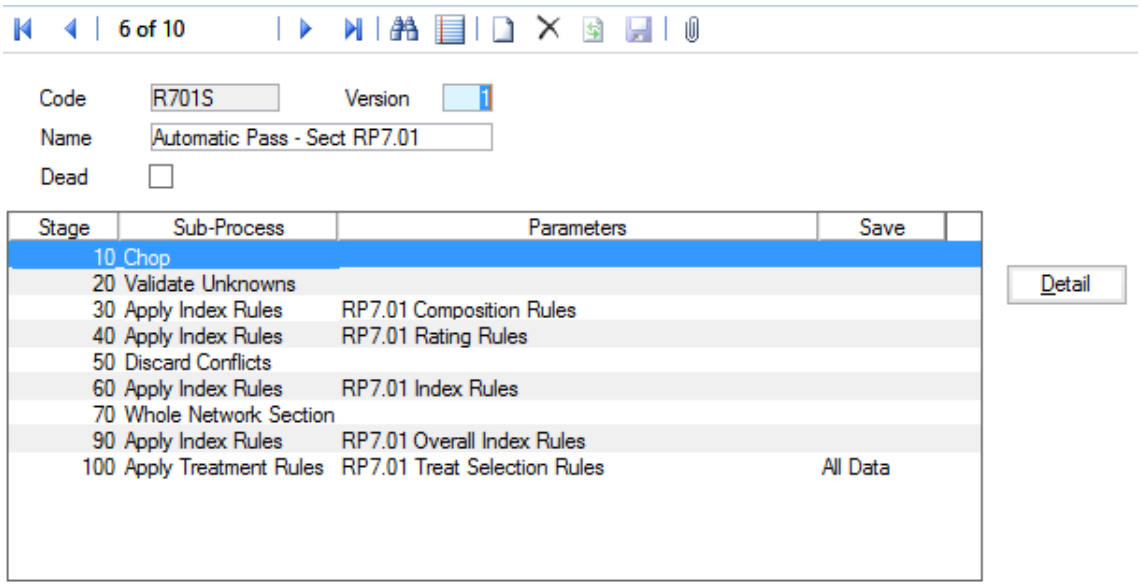
Observation Impact

Observation Impact provides a means of grouping Observation Types together for reporting and filtering.

Code:	Up to four alphanumeric characters
Description:	Up to 30 characters

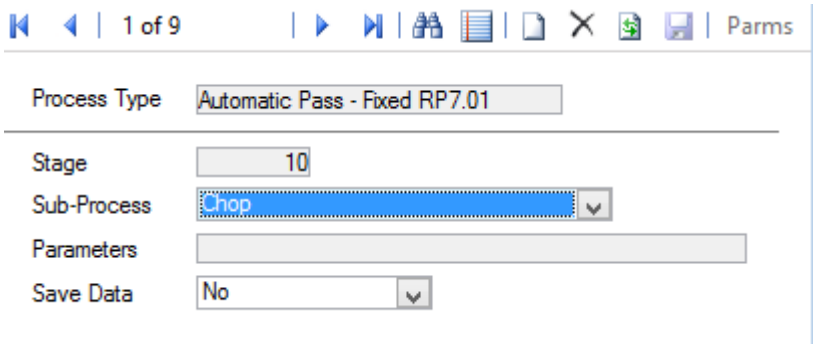
Process Type

Process Type is used to define the steps carried out in a process. It enables predefined processes to be set up for repeated use in the Data Analyser. These may be standardised processes as required by central government (e.g. Automatic pass) or can be a user-defined process appropriate to local requirements.



Code:	A unique code of up to 6 characters
Version:	The Version Number of the process. This is used to track change where the process has been edited or updated
Name:	A 30 character description as appropriate for each process.
Dead:	Clicking on the checkbox marks the process type as 'Dead'. It will no longer appear in drop down lists, however, the details remain in Confirm.

Process Type - Detail Button



Process Type: This is automatically completed from the Process Type screen details and cannot be edited.

Stage: Initially set by Confirm and is incremented by 10 for each Stage added to the Process. This value can be edited to allow further stages to be inserted between two existing stages.

Sub-Process: Select from the drop down the Sub-Process to be carried out at this stage:

'Apply Index Rules' - For each Section, this applies all the Index Rules of a selected Set that are applicable to the Feature Group, each rule producing a new observation. This process does not affect the chopped status of the data.

'Apply Treatment Rules' - (Module 2100) For each Section, this applies all the Treatment Rules of a selected Set that are applicable to the Feature Group and Network Priority of each length.

'Calculate Base Dates' - (Module 2020) Adds Base Date Observations based on the results of Treatments, and removes Observation data predating a Treatment if it would have been resolved by that Treatment.

'Calculate Benefit' - (Module 2210) For use with Treatment Effects. Calculates an overall benefit and economic cost for each of the Strategies that has been created, relative to the base 'Do Nothing' Strategy. These can then be used in Econometric Prioritisation of the Strategies.

'Chop' - (Module 4310) This chops all observations where any observation on the same cross section changes. The resulting lengths are consistent in all observations over their entire length.

'Condition Projection' - (Module 2020) Estimates current condition by projecting based on Observation data from one or more historical Surveys.

'Create Strategies' - (Module 2210) For modelling alternate Treatment Strategies over time, this makes copies of the data so that projection can be continued into the future for the situation where no Treatment is carried out, and for the situations where a Treatment is carried out in year one, two, three and so on.

'Discard Conflicts' - (Module 4010) If observations on the same length have different feature groups then one feature group is chosen (the one with the highest value of any observation) and all the rest are discarded.

'Fixed Lengths' - (Module 4310) This takes all the observations present and aggregates/chops them to the specified lengths. This results in chopped data.

'Increase Date' - (Module 2210) When modelling changes in values over time, this is used to increase the effective date by 1 year so it can be used in calculations. E.g. age of a Carriageway in the projected year.

'Merge' - (Module 4310) This merges each observation type separately. This generally results in unchopped data.

'Preset Lengths' - (Module 4310) This takes all the observations present and aggregates them to the lengths of a specified survey and data set. This results in chopped data.

‘Refresh Data’ – For each section, this includes latest survey (condition) data from within the date range specified for SCANNER analysis.

'SCANNER Index' - (Module 4010) This calculates a SCANNER Condition Index using rules defined in a Weighting Set (Access database). There are two kinds of Weighting Set; Bin Identifier based and Probability based.

'Time Windows' - (Module 2020) This makes a copy of the Observation data for each of the Time Windows defined when data was loaded into the Analysis.

'Treatment Effects' - (Module 2210) For use with Create Strategies. Applies an Index Rule Set to the Observation data depending what (if any) Treatment is being carried out. E.g. to reduce roughness by a particular value or reset it to a particular value.

'Validate Unknowns' - (Module 4010) If observations on the same length have different feature groups these are put together into one.

'Whole Network Section' - (Module 0180) This takes all the observations present and aggregates them to the entire length of the Section. This results in chopped data.

Parameters: Parameters may be used to further define the action to be carried out by a particular Sub-Process like:

•The actual Rule Set for an Apply Index Rules Sub-Process.

•The actual length to use in a Fixed Length Sub-Process.

Save Data: Select from the drop down to tell Confirm how the analysed data is to be treated at the end of each Process Stage. The data remains available for the following process stage in a Process Type whether saved or not:

'No' - Data is not saved at the end of the Process Stage

'Observations' - All observation data is saves at the end of the Process Stage.

'All Data' - All the data is saved at the end of the Process Stage.

'Pause' - The Process is paused when it has completed this Stage.

'Stop' - The Process is stopped at when it has completed this Stage.

The 'Pause' and 'Stop' options allow the saved data set to be used to carry out processing from that point onwards in another Process Type or to be used in its own right for reporting or validation purposes. The data sets are saved in the condition surveys format.

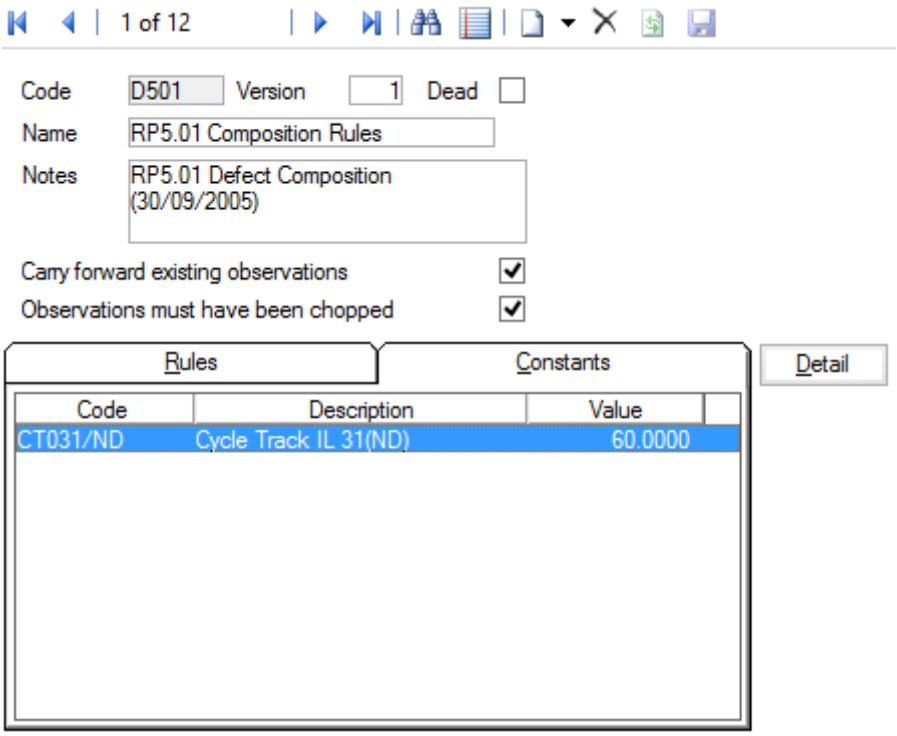
Process Type - Parms Button

The 'Parms' button will bring up the Parameters screen. From here you can either select from a drop-down list for Rule Sets, or enter values for other Sub-Processes.

When the 'Enhanced Mode' setting is checked this merge method ensures consistent Defect Lengths across all condition indices. If left unchecked, the current processing remains unchanged.

Index Rule Set

Index Rule sets are where the rules used for calculation are held. These Index rules perform operations on the data sets. Each Index Rule Set may contain a number of rules and constants. The individual rules within the set perform some type of operation on the data and the result is stored under the observation type specified.



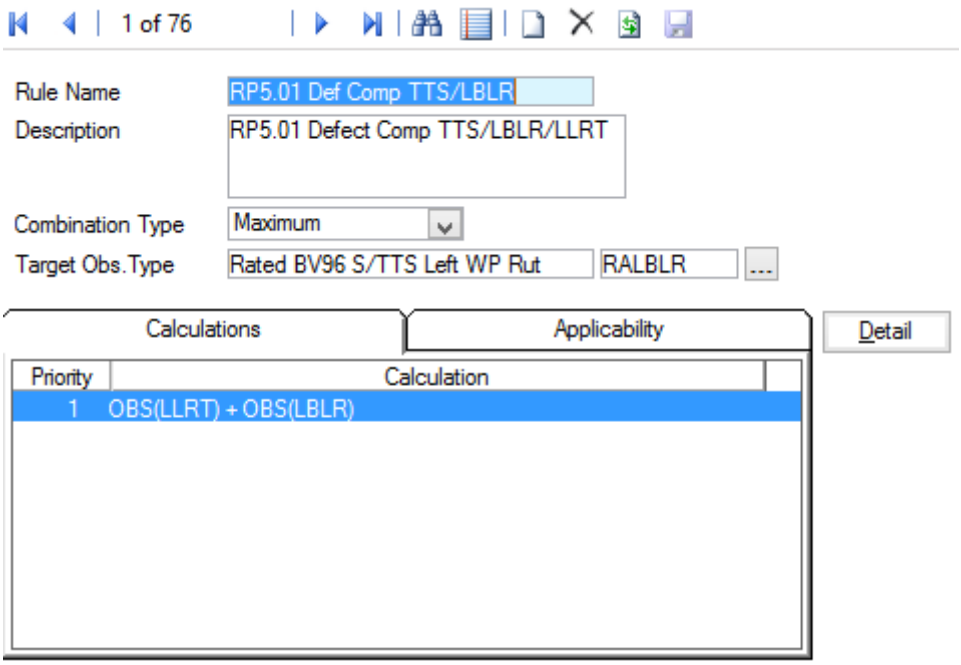
Code:	A unique code of up to 6 alpha/numeric characters
Version:	The Version Number of the process. This is used to track change where the process has been edited or updated
Dead:	Clicking on the checkbox marks the process type as unused or dead. It will no longer appear on drop down fields, pick lists, etc. however, the details re-main in the database.
Name:	A 30 character description as appropriate for each process.
Notes:	A free form text description or other notes of virtually unlimited length.
Carry Forward... :	Clicking on the checkbox determines whether a particular Rule Set retains the observations to which it is applied, adding a new set of results alongside the original. If not checked the current data is discarded and a new Data Set is created for the results. **Note:** Where a Rule Set is carrying forward data, any calculation that results in an Observation of a type that already exists will overwrite the existing value with the new one.
Observations must have been... :	This box should be checked if the input condition data must be chopped before processing is carried out.

If rules are going to combine different types of observations together rather than simply apply transformations to each one individually, data must be chopped to common lengths in order for the Rule Set to be applied.

Index Rule Set - Rules Tab

Under the Rules tab on the Index Rule Set screen clicking on the 'Detail' button will display the Index Rule screen. At this point new rules can be added to the rule set or existing rules can be modified. When modifying an existing rule this can be selected on the Rules Tab area of the Index

Rule Set screen before pressing the 'Detail' button. Alternatively, selection can be made using the 'Binoculars' button once the Index Rule screen has been activated.



Rule Name:	A 30 character description as appropriate for each Index Rule.
Description:	A free form text description of virtually unlimited length.
Combination Type:	This option defines the way in which the results from calculations are combined. Each rule can have a number of calculations, each of which will produce a result. This field will define how these results are combined to form the final result. This is the result that will then be stored as the observation defined by the Target Obs. Type field. The Combination Type is selected from the drop down of available types. The available options are: 'Maximum' - Takes the largest result 'Sum' - Sums all the results from all calculations 'Average' - Takes the average of all the results
Target Obs. Type:	Determines what type of observation this rule creates and uses to store the final result from the calculations carried out.

Index Rule - Calculation Tab

The Calculation tab on the Index Rule Screen displays a list of the calculations defined for the current Index Rule.

A new calculation can be added or an existing calculation can be edited by choosing the calculations tab and pressing the 'Detail' button . This will display the appropriate Index Calculation screen.

See **Rule Set Formula Notes** for more information.

Index Rule - Applicability Tab

The Applicability tab defines the types of feature group to which the rule is applied.

Selecting the Applicability tab on the Index Rule screen and pressing the Detail button will display a different Index Calculation screen with the field to set the Feature Group.

To add a new Feature Group click on the Clear/New button.

The rule will only be applied to features belonging to the groups specified.

Rule Name:	This is automatically completed by the system with the name of the current rule being worked on.
Feature Group:	Select from the drop down of defined Feature Groups as required.

Rule Set Formula Notes

Index Rule Calculations and Treatment Rule Lines are both constructed using a formula that is evaluated on each applicable length within the analysis.

The main difference between the two is that Index Rule Calculations evaluated to a numerical value which is then stored in a result Observation Type, whereas Treatment Rule Lines evaluate to a true or false and are used to determine whether a particular Treatment Rule Line is triggered for a length.

The main component of the formula is generally an Observation value indicated by OBS(OBSTYPE) where OBSTYPE is the Code of the specific Observation Type whose value will be substituted into the formula when it is evaluated, but other codes can be used as shown below.

Placeholder	Description
OBS(OBSTYPE)	The Observation value on the length for Observation Type with code OBSTYPE.
ATTR(ATTRTYPE)	The Attribute Value Code of the parent Feature for the ATTR-TYPE pick list Attribute Type.
CONST(CONSTCODE)	The value Rule Set Constant with Code CONSTCODE on this Rule Set.
OBSLEN	The length on which the rule is being evaluated (i.e. the difference between the Start and End Distance, usually in metres).
DAYSAGO(DATETYPE)	The number of days from the value of Feature Date DATETYPE on the parent Feature up to the present day, for example for a construction date Date Type this would allow the age of the asset to be used in a formula.

A number of simple illustrative examples are listed below.

The following Index Rule Calculation text could be used to combine together three specific surface condition Observations to produce a composite measure of the overall surface condition. In this case the first condition is considered the main indicator and is thus weighted more heavily.

```
0.6 * OBS(SURF1) + 0.2 * OBS(SURF2) + 0.2 * OBS(SURF3)
```

The following Treatment Rule Line text could be used to test if a Cracking Observation, measured as a percentage area, exceeds a specified intervention level. The intervention level is here defined as a Rule Set Constant so that it can be referenced in several Rules.

```
OBS(CAREA) > CONST(INTLEVEL)
```

The following two Treatment Rule Line text examples show how this could be extended to use an Attribute of the Feature to apply a different intervention level for Urban and Rural road assets.

```
ATTR(URBN)="U" AND OBS(CAREA)>=CONST(INTLEVEL1)
ATTR(URBN)="R" AND OBS(CAREA)>=CONST(INTLEVEL2)
```

Index Rule Set - Constants Tab

Clicking on the 'Detail' button in the Index Rule Set screen with the Constants tab selected displays the Rule Set Constant screen.

Rule Set constants can be used in all rules within that Rule Set. These can be used, for example, as weightings in Index Calculations.

Code:	A unique code of up to 8 alpha/numeric characters.
Description:	A 30 character description as appropriate for each Rule Set Constant.
Value:	This field is in 8.4 format, i.e. 8 numbers before and 4 numbers after the decimal point.

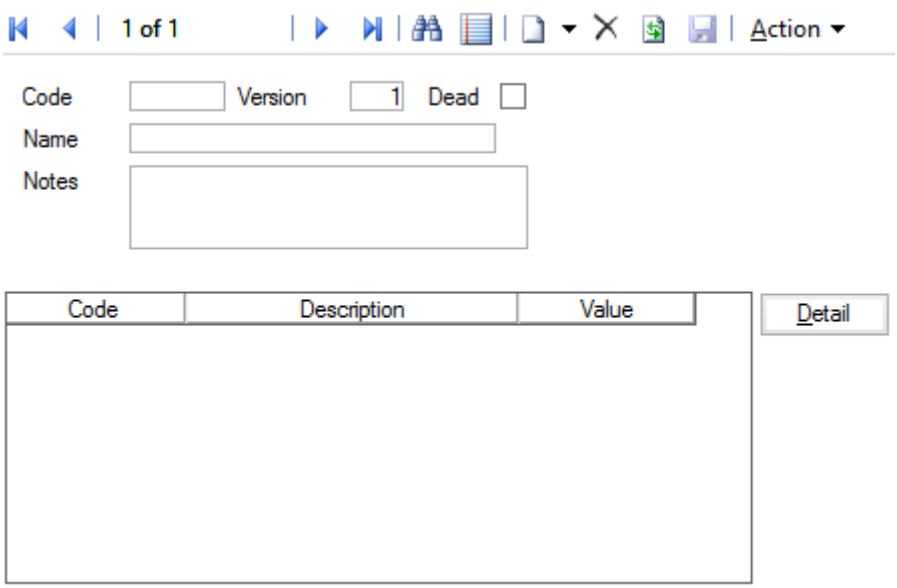
Rule Set Flowchart

When working through index rule sets, Confirm proceeds as follows:

1. Take first Rule
2. Within each Rule, there will be one or more calculations. Work through these calculations in priority order.
3. For each calculation, carry out the calculation specified (if applicable to the feature), and then feed the result into the transformation curve specified (if any). Take the result from the transformation curve and remember it.
4. Repeat step 3 above until all calculations in the rule have been completed.
5. Based on the combination type specified for the rule, either take the highest of, sum of or average of the results from all the calculations and store in the specified Target Observation Type.

Move to next rule, and repeat steps 2 to 6 until all rules have been completed.

Projection Rule Set



Code:	A unique code of up to 6 alpha/numeric characters.
Version:	The Version Number of the process. This is used to track change where the Treatment Rule set has been edited or updated.

Dead:	Checking this marks the Treatment Rule set as unused or dead. It will no longer appear on drop down fields, pick lists, etc. however, the details remain in the database.
Name:	A 30 character description as appropriate for each Treatment Rule set.
Notes:	A free form text description or other notes of virtually unlimited length.

Projection Rule Set - Detail button

Clicking on the Detail button in the Projection Rule Set screen displays the Rule Set Constant screen.

Rule Set constants can be used in all rules within that Rule Set.

Code:	A unique code of up to 8 alpha/numeric characters.
Description:	A 30 character description as appropriate for each Rule Set Constant.
Value:	This field is in 8.4 format, i.e. 8 numbers before and 4 numbers after the decimal point.

Projection Rule Set - Action button

Each of the following options are used in connection with T3 processing.

Edit Effects of Treatment

This option is used to edit the effects that certain types of treatment have. E.g. doing a certain treatment adds 10 years to the life of a road or resets it's 'age' to 20 years.

Edit Carriageway Group After Treatment

This option is used to specify transformations that apply to the group when a treatment has been completed. E.g. Concrete after a Bituminous overlay now has a Bituminous surface type.

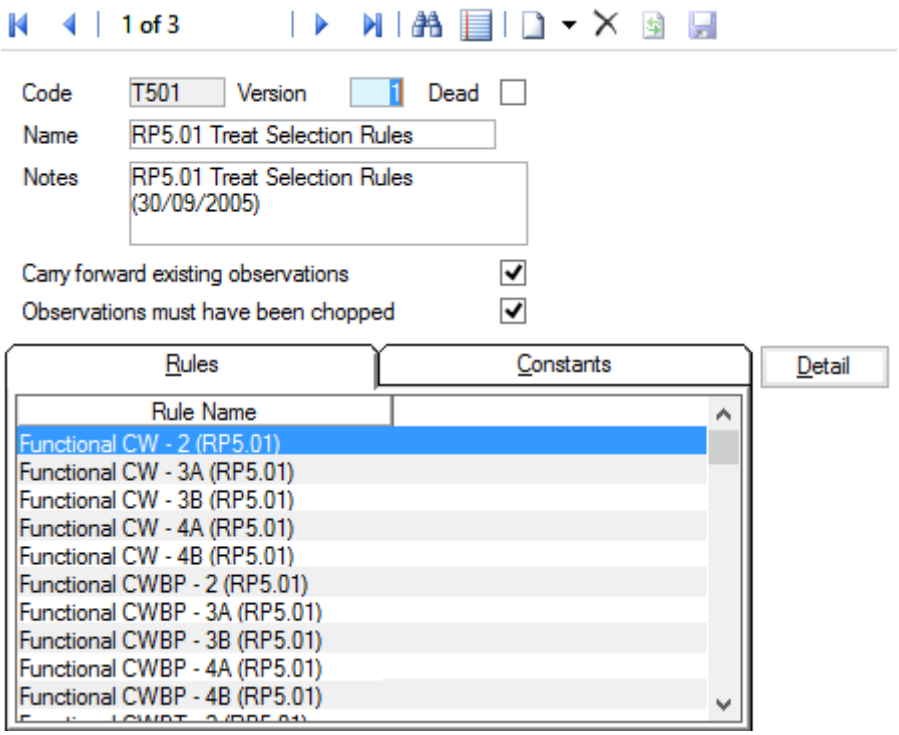
Edit Projection Relationship

This option is used to define which A, B, C and D values are to be used in projection calculations for each combination of varying attributes.

Treatment Rule Set

Treatment Rule Sets determine the type of treatment to be applied depending on an index value that has been previously calculated. The initial screen closely resembles the Index Rule Set screen, having entries for code, name, version, notes etc and also two tabs in the lower half for rules and constants. Constants are used to define values to be used within the treatment selection, allowing for easy changes should this be required.

A Treatment Rule set is similar to an Index Rule set in the way it is defined and therefore many of the input screens are almost identical in appearance and in the way data is entered.



Code:	A unique code of up to 6 alpha/numeric characters
Version:	The Version Number of the process. This is used to track change where the Treatment Rule set has been edited or updated
Dead:	Clicking on the checkbox marks the Treatment Rule set as unused or dead. It will no longer appear on drop downs, pick lists, etc. however, the details remain in the database.
Name:	A 30 character description as appropriate for each Treatment Rule set.
Notes:	A free form text description or other notes of virtually unlimited length.
Carry Forward... :	Clicking on the checkbox determines whether a particular Rule Set retains the observations to which it is applied, adding a new set of results alongside the original. If not set the current data is discarded and a new Data Set is created for the results. **Note:** Where a Rule Set is carrying forward data, any calculation that results in an Observation of a type that already exists will overwrite the existing value with the new one.
Observations must have... :	This box should be checked if the input condition data must be chopped before processing is carried out. **Note:** If rules are going to combine different types of observations together rather than simply

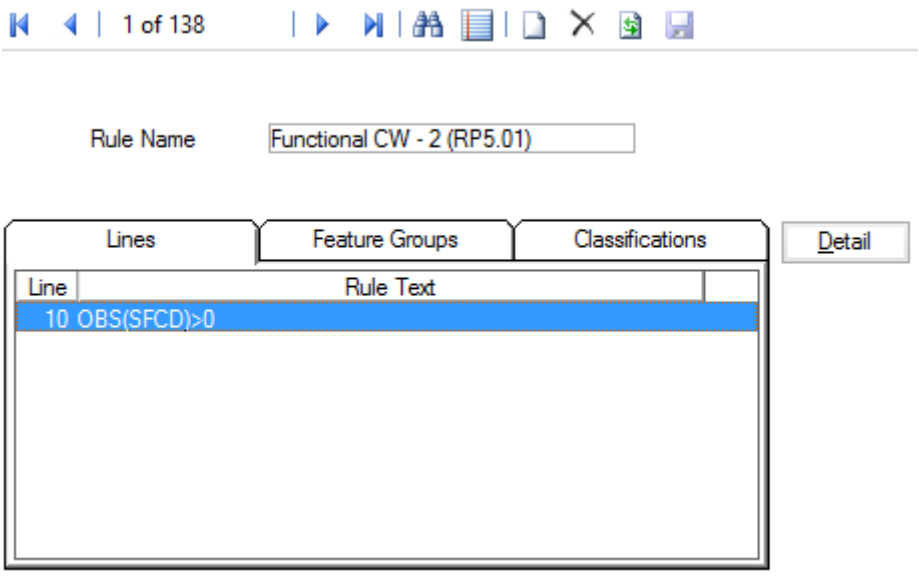
apply transformations to each one individually, data must be chopped to common lengths in order for the Rule Set to be applied.

Treatment Rule Sets - Rules Tab

The Rules tab lists the rules to be applied to determine treatments.

Pressing the 'Detail' button will display the Treatment Selection Rule screen.

For each length within each Feature in the Analysis, all applicable Treatment Rules (those which include both the Feature Group and Classification of the length) are checked in turn to see whether a Treatment is triggered.



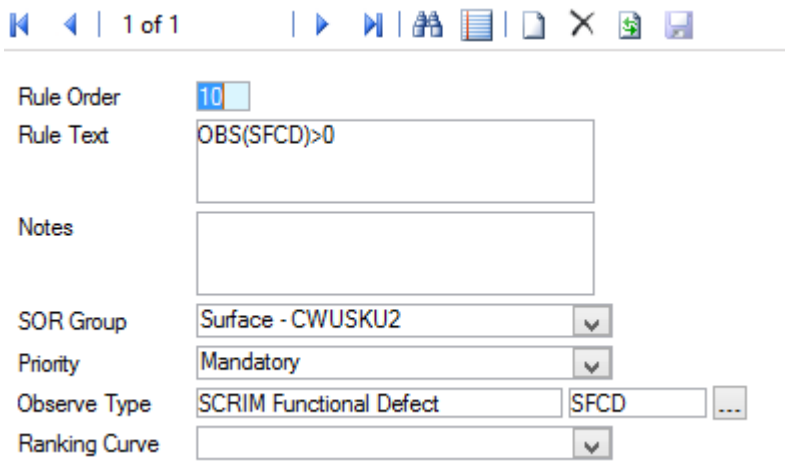
Rule Name: A 30 character name/description as appropriate for each rule. This must be unique.

Treatment Selection Rule - Lines Tab

Each Treatment Rule consists of one or more Rule Lines. Each Rule Line is in the form of a logical operator or test rather than a calculation. The Lines tab window lists these Treatment Selection Rule Lines.

Selecting the desired rule and double clicking or pressing the Detail button displays the Treatment Selection Rule Line screen.

The SOR Group defines the treatment type. The ranking value is generated by applying the transformation specified on the Ranking Curve line to the observation type specified on the Observe Type line. The treatment will also have a priority. This is Mandatory for functional treatments and Desirable for the rest.



Rule Order	The order in which the rules are to be processed. The rule lines are tested in order and the first one that is found to be true results in the specified treatment being allocated.
Rule Text	This field contains the test to be carried out. See **Rule Set Formula Notes** for more information.
Notes	A free form text description or notes of virtually unlimited length.
SOR Group	The Schedule of Rates Group is selected from the drop down of defined SOR Group items for treatments. This defines the treatment type appropriate to this rule line being satisfied.
Priority	Selected from the three available options in the drop down. Other user definable options may be available. This defines where the treatment will be ranked. In budget allocation, funds are allocated in ranking order within priority which have a specified order. • Mandatory • Desirable • Routine Maintenance
Observe Type	The Observation type is entered here or selected using the Pick button with associated filter and Observation Type Lookup.
Ranking Curve	The Ranking Curve or transformation is selected from the drop down of defined types. The ranking value is generated by applying the Ranking Curve (transformation) specified on the line to the observation type specified on the line.

Treatment Selection Rule - Feature Groups Tab

The Feature Groups to which the Treatment Selection Rule applies are shown in the window associated with the Feature Groups Tab.

Selecting the desired rule and double clicking or pressing the 'Detail' button displays the Treatment Rule Feature Group screen.

For each rule, select the required Feature Group.

Treatment Selection Rule - Network Priorities Tab

The Network Priorities applicable to the Treatment Selection Rule are set here. Only the Network Priorities to which the Treatment Selection Rule applies should be entered here.

Selecting the desired rule and double clicking or pressing the 'Detail' button displays the Treatment Rule Network Priority screen.

For each rule, select the required Network Priority

Rule Set Formula Notes

Index Rule Calculations and Treatment Rule Lines are both constructed using a formula that is evaluated on each applicable length within the analysis.

The main difference between the two is that Index Rule Calculations evaluated to a numerical value which is then stored in a result Observation Type, whereas Treatment Rule Lines evaluate to a true or false and are used to determine whether a particular Treatment Rule Line is triggered for a length.

The main component of the formula is generally an Observation value indicated by OBS(OBSTYPE) where OBSTYPE is the Code of the specific Observation Type whose value will be substituted into the formula when it is evaluated, but other codes can be used as shown below.

Placeholder	Description
OBS(OBSTYPE)	The Observation value on the length for Observation Type with code OBSTYPE.
ATTR(ATTRTYPE)	The Attribute Value Code of the parent Feature for the ATTR-TYPE pick list Attribute Type.
CONST(CONSTCODE)	The value Rule Set Constant with Code CONSTCODE on this Rule Set.
OBSLEN	The length on which the rule is being evaluated (i.e. the difference between the Start and End Distance, usually in metres).
DAYSAGO(DATETYPE)	The number of days from the value of Feature Date DATETYPE on the parent Feature up to the present day, for example for a construction date Date Type this would allow the age of the asset to be used in a formula.

A number of simple illustrative examples are listed below.

The following Index Rule Calculation text could be used to combine together three specific surface condition Observations to produce a composite measure of the overall surface condition. In this case the first condition is considered the main indicator and is thus weighted more heavily.

```
0.6 * OBS(SURF1) + 0.2 * OBS(SURF2) + 0.2 * OBS(SURF3)
```

The following Treatment Rule Line text could be used to test if a Cracking Observation, measured as a percentage area, exceeds a specified intervention level. The intervention level is here defined as a Rule Set Constant so that it can be referenced in several Rules.

```
OBS(CAREA) > CONST(INTLEVEL)
```

The following two Treatment Rule Line text examples show how this could be extended to use an Attribute of the Feature to apply a different intervention level for Urban and Rural road assets.

```
ATTR(URBN)="U" AND OBS(CAREA)>=CONST(INTLEVEL1)
ATTR(URBN)="R" AND OBS(CAREA)>=CONST(INTLEVEL2)
```

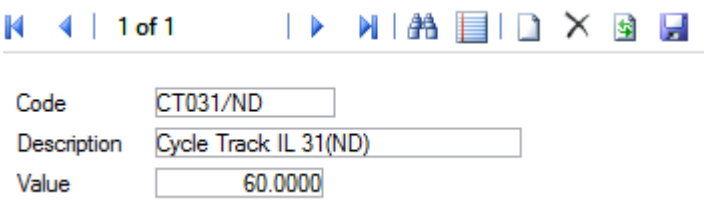
Treatment Rule Set - Constants Tab

Selecting the Constants tab will show a list of the constants set up for the particular treatment rule set.

Treatment Rule Set constants can be defined and can then be used in all rules within that Rule Set. These can be used as threshold values for tests in the Treatment Selection Rules. The Constants are then used in the Treatment Rule Line tests.

In the case of the predefined rules, there are a large number of constants, defining such things as intervention levels (IL in the name).

Pressing the 'Detail' button will display the Rule Set Constant screen.



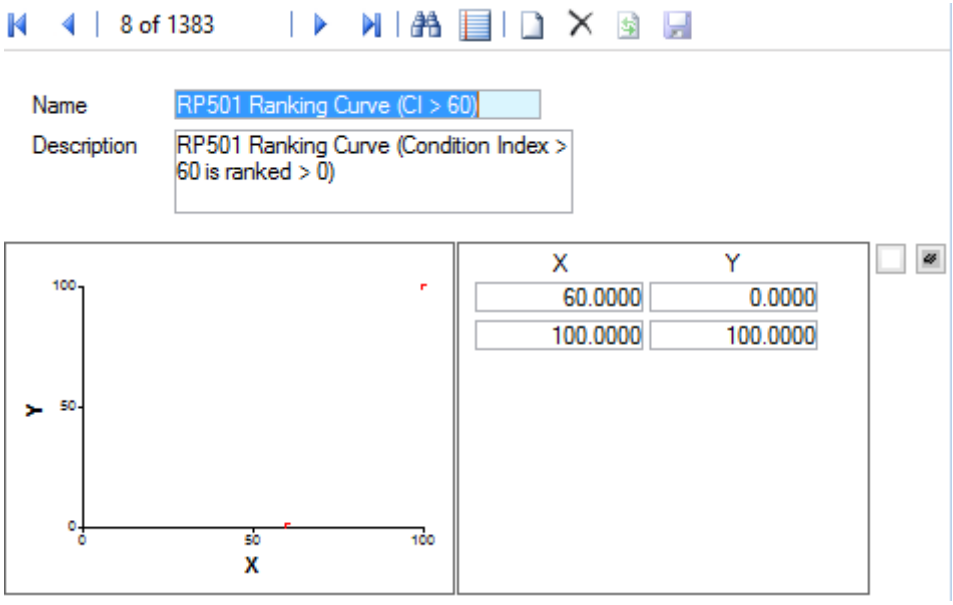
Code:	A unique code of up to 8 alpha/numeric characters.
Description:	A 30 character description as appropriate for each Rule Set Constant
Value:	This field is in 8.4 format, i.e. 8 numbers before and 4 numbers after the decimal point.

Transformation Curve

Transformation Curves are used to transform results from treatment or Index Rules. The curve is basically an X-Y graph, the X being the result passed form the rule, the Y being the returned value.

Transformation Curves can be applied to data for several reasons. An S-shaped curve might be used to reduce the effect of extreme values on calculations, or alternatively a curve could be defined to exaggerate such effects if this is desirable.

In the UKPMS use of Confirm, curves are defined to model rating lookup tables so that all observed values, however recorded, are converted to a value between 0 and 100, so that all can be compared equally. It is also possible to define Transformation Curves to approximate mathematical functions.



Name:	A 30 character name/description as appropriate for each Transformation Curve. Must be unique
Description:	A free text description of the Transformation Curve.

The lower part of the screen displays a graph on the left and a series of data points on the right. The points are edited by typing in new numbers.

New / Clear:	Used to add extra points. Select an existing point, then click on the New/Clear button, a new entry is then inserted above the current point. The defined points are shown on the graph as small red tick marks.
Delete:	Use this to delete a point. Select the point and click on the 'Delete' button. **Note:** Do not click on the larger Delete button, this will delete the entire Transformation Curve.

SOR Group

The SOR Group provides a short cut for producing standard Jobs by providing all the necessary SORs as a Group.

Groups can be used when creating Jobs - from the Jobs form, from Defects (Condition Survey) and from Enquiries (Customer Services).

SOR Group Code:	Up to four alphanumeric characters
Name:	Up to 30 characters
Notes:	An optional free text field

Click on the 'Detail' button to display the SOR Group Item form.

Items are numbered within the Group, beginning with 10 and incrementing in 10s. You may alter the number if you wish.

Enter (or select from the pick list) an SOR Item.

The pick list references the **SOR Item lookup.**

Save the record. A new blank form is displayed for the entry of the next SOR in the Group. Enter all the Required SORs.

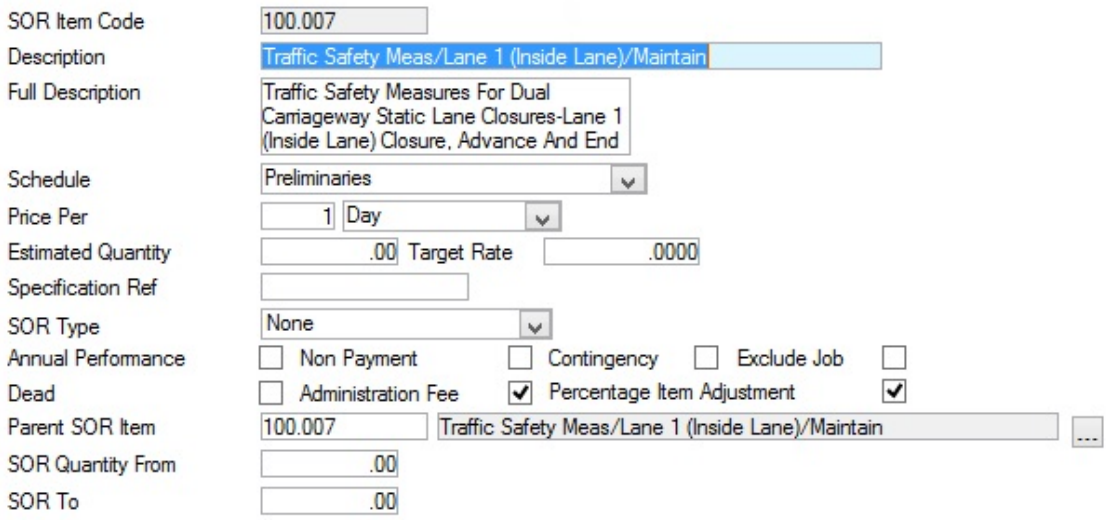
SOR Item

SOR Item Form

An SOR (Schedule of Rates) Item is the unit of work. The SOR Item will usually be defined in the Contract as the items of work the Contractor has bid on.

SOR Items need not necessarily be priced, or included in Contract. Within Confirm the function of an SOR is to provide an instruction for work of a particular kind to be carried out.

All the SOR Items are defined in the SOR Item library. Their function, and the way they will interact with the system, is also defined within the SOR Item library.



SOR Item Code:	Up to eight alphanumeric characters
Description:	Up to 55 characters
Full Description:	An optional free text field. The full description may be optionally displayed on Works Orders, Work Tickets and reports
Schedule:	Select the Schedule from the drop down list. The drop down list references the **Schedule lookup.**
Price Per:	Enter a number in the first field (other than zero). Select a Unit of Measure from the drop down of the second field. The drop down list references the **Unit of Measure Lookup.**
Estimated Quant-ity:	(Optional) Entering an Estimated Quantity (i.e. Unit of Measure per year) will provide that information on the Contract Bill of Quantities. It is unnecessary to enter an estimated quantity for programmed work since this can be derived by the system from Maintenance Regimes. **Note:** An Estimated Quantity for Non Routine work can be calculated by running the Quantity Calc utility in the SOR Item Lookups. This will derive a quantity based on Non-routine work orders in the system for a past period.

Target Rate:	(Optional) Entering a Target rate will provide information for reports on the estimated cost of Routine Work, based on Target Rate, and for costing non-Routine Jobs, based on Target Rate. This must be populated for Confirm to correctly to estimate Treatment Costs for UKPMS purposes.
Specification Ref:	An optional free text field for the entry of the specification reference
SOR Type:	Select from the drop down: None: for any item other than the 'Liquidated Damages' Item and the 'Retention' Item Liquidated Damages: for the Liquidated Damages Item. Where Liquidated Damages will be calculated against Non Routine Work. In order to provided the tool for applying a value to the Liquidated damages, one SOR Item is created, measured 'per Pound (£), and identified as a 'Liquidated Damages' Item. Retention item: for the Retention Item. Where part of the value of Non Routine Work will be retained for a guarantee period. In order to provided the tool for applying a value to the retention, one SOR Item is created, measured 'per Pound (£), and identified as the 'Retention' Item Percentage Item: See 'To create Percentage Items' below.
Annual Performance:	(Applicable to the Contract Management module) Check this box to identify the Item as an 'Annual Performance' Item. Annual Performance Items represent a yearly cost for an item of work (so that 'per 100 Sq. metres' is read as 'per 100 square metres per year'), which will be paid for (under the Contract Management module) in equal instalments over a year.
Non-Payment:	(Applicable to the Contract Management module) Check this to identify items that will be included on Routine Maintenance Works Orders but will not be paid for. This might be inspection items, which need to be programmed but for which the Contractor is not paid. Alternatively, there might be a need for instructive items where an Annual Performance Item is being used to make the payments. **Note:** These are not intended for use with Non-Routine Works.
Contingency:	(Applicable to the Contract Management module) Check this to allow this SOR item to be 'hidden' on a Works order. There is usually only one Contingency item - priced per Pound (£), which is used to build extra value into a non-routine works order. The extra value can be hidden on the Order, but registers in committal and budget reports.
Exclude Job:	Check this to exclude Jobs carrying this SOR from being automatically batched onto Orders on upload from the mobile device.
Administration Fee:	(Administration Fee Recovery Module) Check this to allow an administration fee to be calculated on this SOR. **Note:** the field will only be visible where the Administration Fee Recovery module is active.
Percentage Item..:	Checked by default. Uncheck this to exclude the value of this SOR item from the total value of the Job for percentage Item calculation purposes.

The following three fields relate to the SOR Banding module. The default entries should be left in place if the SOR Banding is not being used for this SOR Item.

Parent SOR Item: The current SOR Item will be entered here by default. Where this is a child SOR Item, the Parent SOR Item which it references should be entered here.

Note: The following SOR Item Types are not applicable to SOR Banding and will always have their Parent SOR Item Code field set to their own SOR Item Code:

1. Liquidated Damage SOR Item.
2. Retention SOR Item.

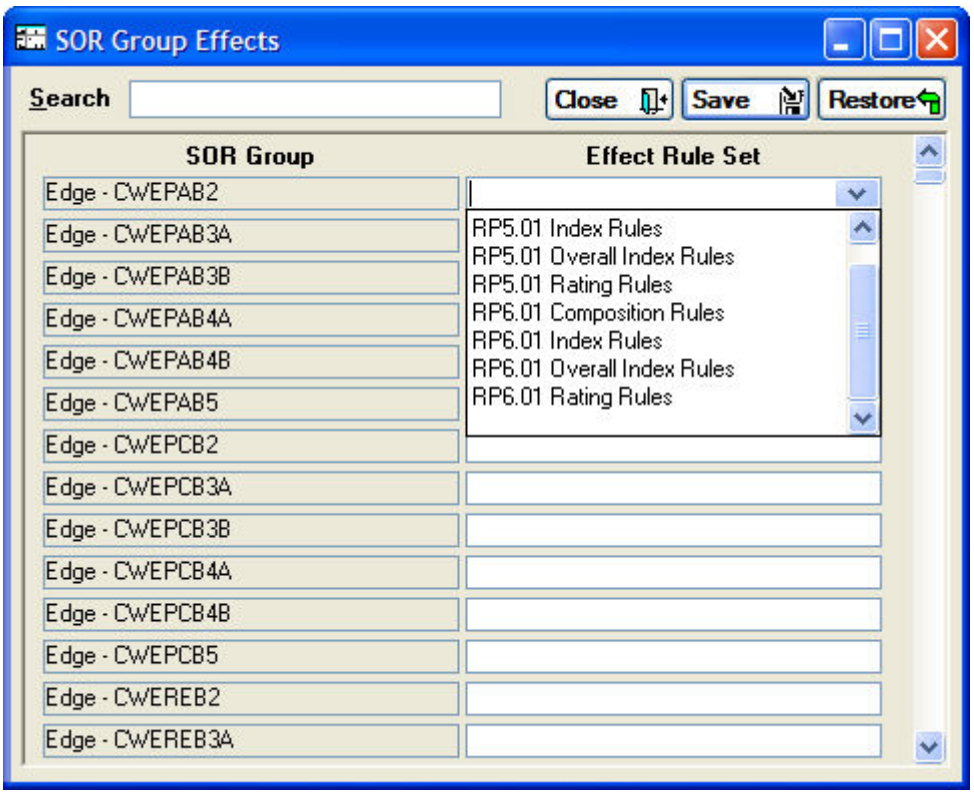
SOR Quantity From: Enter the lower limit of the band. The Ordered Quantity must be 'more than or equal to' this quantity to use this band.

SOR Quantity To: Enter the upper limit of the band. The Ordered Quantity must be 'less than' this quantity to use this band.

SOR Group Effects

The SOR Group Effects screen displays all of the SOR groups. This screen is then used to link an Index Rule Set to each group which then determines how the Treatment Effects process will behave.

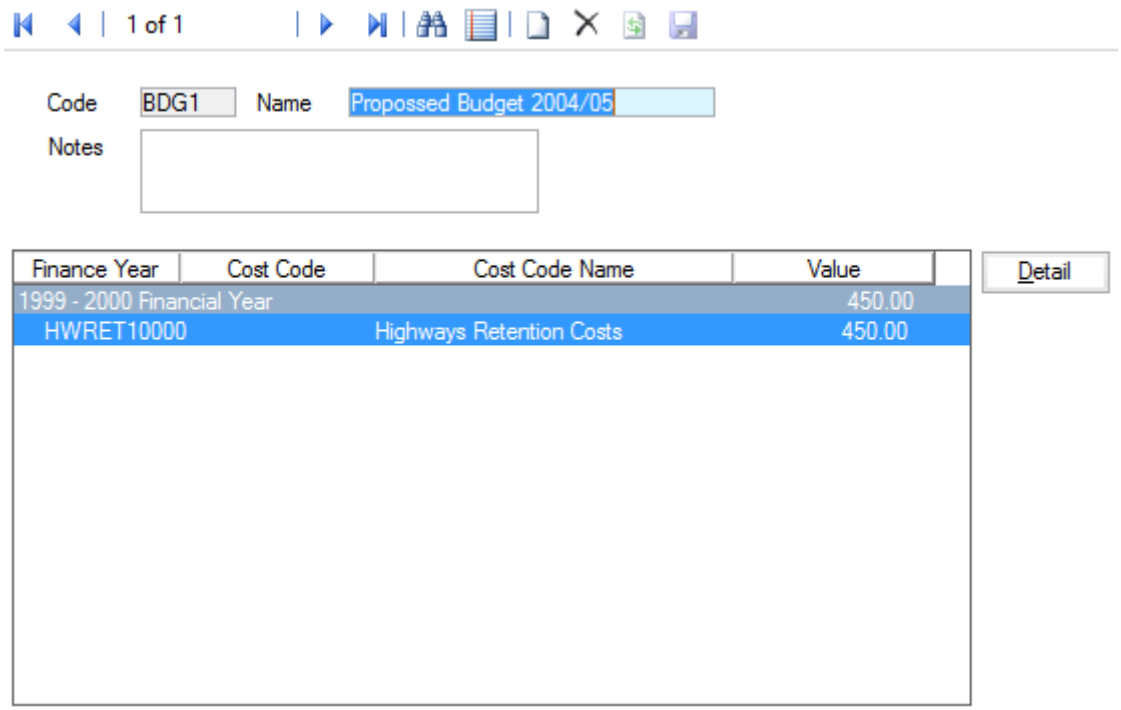
Note: This is not used for T2 or T3 UKPMS processing.



Budget Instance

The Budget Instance screen is used to define different Budget scenarios to be used in the allocation of funds to suggested treatments. Entries made in the Budget Instance form do not appear in other parts of Confirm and are not counted as actual income/expenditure.

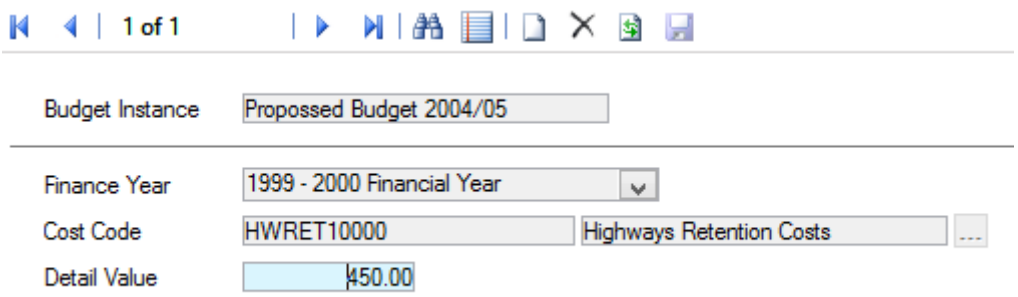
When running a **Survey Treatment Summary** on page 23, you will be asked for a Budget Instance against which to allocate costs.



Code:	Supply up to 6 characters for the Code for the Budget Instance.
Name:	Up to 30 characters. This should ideally allow easy identification of differing Budget Instances in Confirm.
Notes:	Free text, supply further information on this Budget Instance.

Budget Instance Detail

On the Budget Instance Detail screen, you can allocate money to different cost codes to be used to carry out treatments. Money may be allocated to a number of different Cost Codes.



Budget Instance	This will be completed automatically based on the current Budget Instance.

Finance Year	Choose from an existing Finance year. (Finance Years are defined in the Finance and Budgets module of Confirm).
Cost Code	Enter the cost code or use the pick button. to select from the available Cost Codes.
Detail Value	Enter the figure to be allocated to the cost code.

Priority

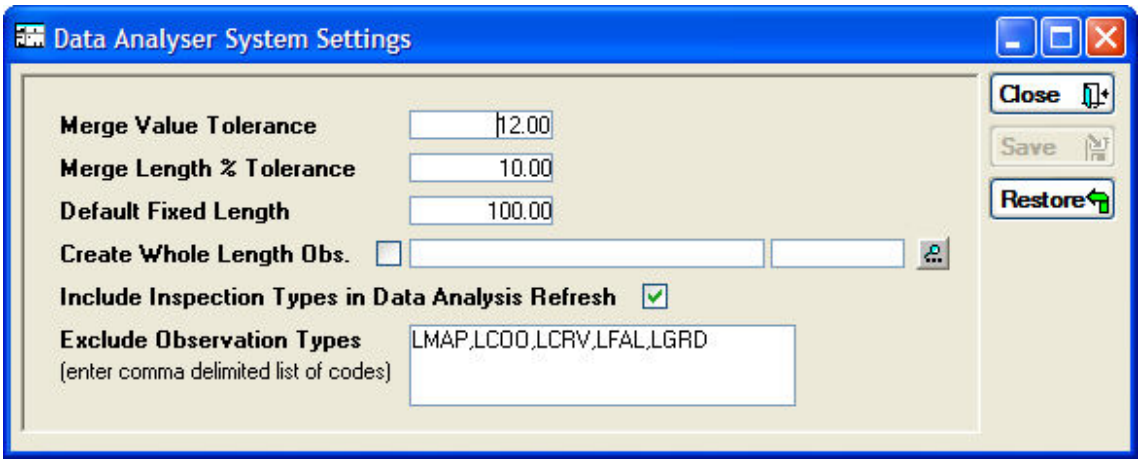
The Priority library provides the means of linking Status, Price Factor and Follow Up to create the starting point, and proposed duration, for a Job. One Priority is set as the default, providing a new Job with a Price Factor, and its first Status. An estimated completion for the Job may also be calculated based on the Follow Up entered in the 'Completion' field (if the Contract Management System Settings allow it).

Priority Code	Up to four alphanumeric characters.
Dead	If a Priority is flagged as dead, this will prevent this Priority from being selected interactively by a user creating or updating a Job (or Defect).
Name	Up to 30 characters.
Notes	Free text to supply more information about this Priority.
Status	Enter (or select from the pick list) the status for this Priority. The pick list references the Status Lookup.
Price Factor	Select the Price Factor for this Priority. The drop down list references the Price Factor lookup.
Completion	Select a time-scale. The drop down references the Follow Up lookup. **Note:** When raising Street Works Notices from Jobs, Confirm does NOT count the current day in the duration calculation for the Work Type. The Completion Follow Up should therefore be set one day shorter than normally required. E.g. a Minor Works is normally 3 Working Days which therefore requires a 2 Working Day Follow up.
Device Creation of Orders	Select from: 'Do Not Create' - do not create an Order for Jobs with this Priority. 'Group but do not Commit' - group the Jobs with this Priority onto an Order but do not commit the Order. 'Group and Commit' - group the Jobs with this Priority onto an Order and commit. 'Do not group and do not commit' - each Job with this Priority will be placed on it's own uncomitted Order. 'Do not group but commit' - each Job with this Priority will be placed on it's own committed Order.
Device and Web Data Key	Optionally specify a Data Key to restrict which Users will have this lookup available on a mobile device or via Confirm on the web. **Note:** For mobile devices, this lookup will still be transferred, it will simply be hidden from the User when logged in.

Urgency	(Street Works Initiation module) This field can be used to automatically trigger the creation of Street Works Notices from Jobs. Refer to the **Street Works Initiation from Jobs** help section for more information.
Raise a Defect Job	(Condition Survey module) This is checked by default for a new record, and will set the 'Raise Job' flag on the Defect automatically when this Priority is selected for the Defect. Uncheck this for Priorities in which a Job will not be automatically raised from the Defect. This setting is also used when uploading Defects from a device to tell Confirm if a Job should be raised. **Note:** Confirm will ignore this setting if a Contract, Cost Code or Items are supplied with a Defect imported from a device. A Job will be raised so that this information is not lost.
Ranking Order	(PMS Treatment Selection - Automatic module) Enter a ranking which will be used to when running the Budget Optimisation Report. Confirm will allocate available funds to all priority 1 treatments before it proceeds to look at priority 2 and so on.
Scheduling Priority	Enter a ranking which will be used to when running Smart Scheduling. Confirm will allocate available Resources to priority 1 Jobs before it proceeds to look at priority 2 and so on.
Nominal Value	(Applicable for **Defect Priority Calculation** in ConfirmConnect® only) This field indicates the numeric value for a defect priority. This should be greater than or equal to its Minimum and less than its Maximum. Valid Range: 0.01 till 9999999.99 (both values inclusive). **Note:** Nominal Value is required for Defect Default Priority. If not populated than Default Priority won't be adjusted automatically.
Minimum/Maximum	(Applicable for **Defect Priority Calculation** in ConfirmConnect® only) These fields specifies the range of a defect priority. Maximum is un-editable and is derived from the minimum of next priority if available. Valid Range: 0.01 till 9999999.99 (both values inclusive).

Data Analyser System Settings

This screen is used to pre-set the default values to be used for Data Analysis.



Merge Value Tolerance:	The default Value for the Merge process tolerance is set here. This can be overridden in the Process Type with the Merge process selected.
Merge Length % Tolerance:	The default Length Percent for the Merge process tolerance is set here. This can be overridden in the Process Type with the Merge process selected.
Default Fixed Length:	The Default Fixed length for the Fixed Length process is set here. This can be overridden in the Process Type with the Fixed Length process selected.
Create Whole Length Obs.:	This setting is used by the Refresh Data filter to set the 'Create whole length observations' check box. An appropriate Observation Type should also be specified. Confirm will create Whole Length Observations of this Type for all Features being analysed. This ensures that rules will be executed even if no condition data is present. If a Feature has no other data, then a single observation is created on the default XSP for the Feature's Feature Group. If real data does exist, then a Whole Length Observation will be created for every XSP/Group combination where data exists. Confirm does not keep these Observations once they are created. Where it is required to carry the Observations forward through processing this must be coded up in the rules/processes as for other Observations. **Note:** Add Data From Analysis' does not have the option to create Whole Length Observations.
Include Inspection Types... :	Tick this to include Inspection Types in the Data Analysis Refresh option.
Exclude Observation Types:	Supply a comma delimited list of Observation Type codes that should be excluded during the Refresh Data stage of the Data Analysis. **Note:** Care should be taken to not exclude data that would affect the results of the Analysis.

Econometric System Settings

These settings are used with the Economic optimisation module (2210).

Contract for Costing:	Specify a Contract to be used for estimating Treatment costs.

Price Factor (Financial):	Used with the Contract above to estimate the financial cost of a Treatment.
Price Factor (Economic):	Used with the Contract above to estimate the financial cost of a Treatment.
Do Nothing SOR Group:	Used by "Create Strategies" when creating a "Do Nothing" Treatment, and to determine which Treatments (those other than "Do Nothing") require a new Strategy to be created
Do Nothing Priority:	Used by "Create Strategies" when creating a "Do Nothing" Treatment.
Rehabilitation years:	Used by "Create Strategies" to determine how many Strategies to create for a Treatment, e.g. if Rehabilitation Years is set to 3 it will create one Strategy for carrying out the Treatment at the current date, one for the following year, and one for the year after that.
Treatment Cost Obs. Type:	If this is set then the "Treatment Effects" Sub-Process will create an Observation of this Type and store the Treatment Cost in it.
Economic Cost. Obs. Type:	Used by "Calculate Benefit", which looks at the value of an Observation of this type to get the Economic Cost of a particular Treatment. If not set, it will just take the Financial Cost to be the Economic Cost.
Economic Ind. Obs. Type:	Used by "Calculate Benefit", which looks at the value of an Observation of this type to get the Benefit of a particular Treatment.
Economic Indicator Type:	To specify if the Economic Indicator specified above is a cost rather than a benefit, in which case its value will be reversed.

Network Analysis Data Export Settings

These settings are used to specify the format that will be used when the HDM4 data is exported via the Network Analysis Data Export report. A driver must be specified to create a .dbf file when the report is run.

For further details on how to set these fields please refer to your HDM4 documentation.

Network Analysis Data Export Observation Types

Used to configure HDM4 fields against Confirm Observation Types for export with the Network Analysis Data Export report.

Survey Seed Numbers

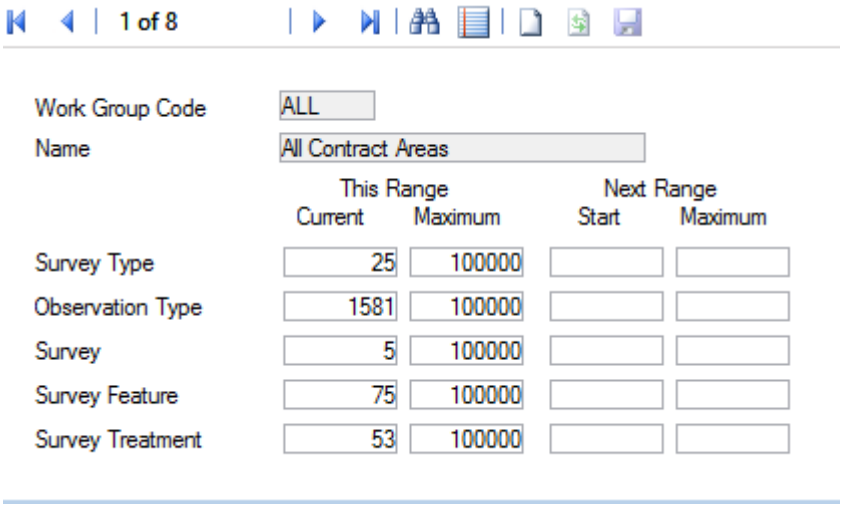
Seed numbers are set in Condition Survey Seed Numbers within each Work Group for:

- Survey Type
- Observation Types
- Surveys
- Survey Features
- Treatments

Two ranges are available allowing you to issues two batches of non-contiguous numbers.

Bear in mind that each Work Group must have a unique range of numbers, but if you issue one range to start with, which proves to be too few numbers, you can later come back and use the second range. You can also amend the 'Maximum' number to make room for a range of numbers for a new Work Groups.

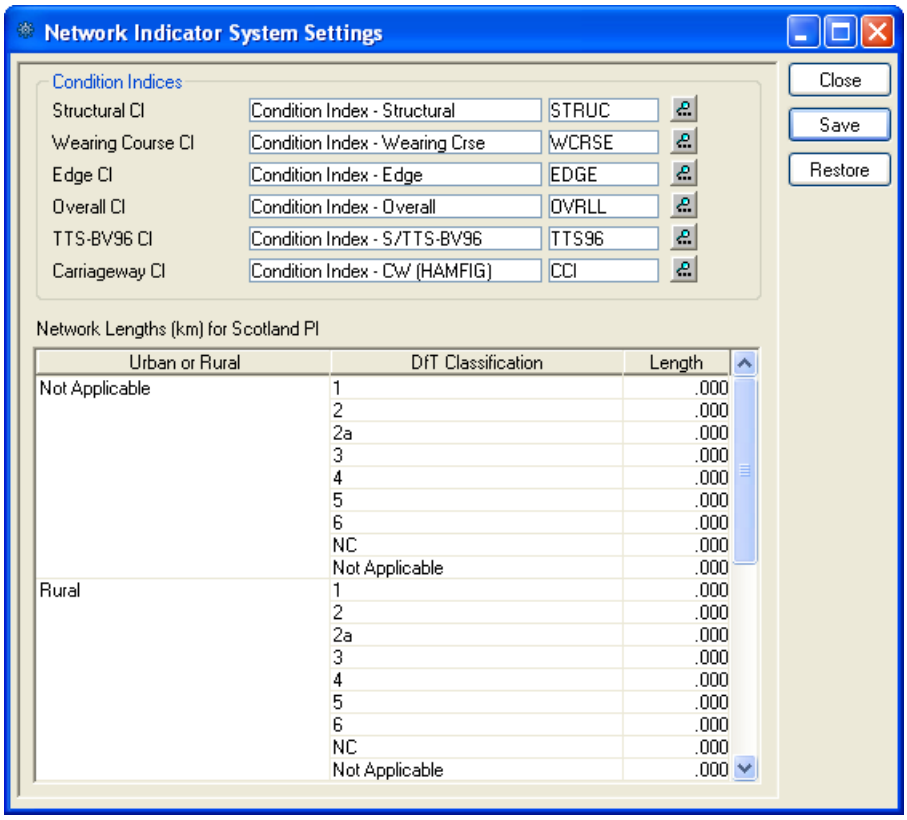
The total range of numbers is from 1 to 99999999. These numbers need to be distributed amongst the Work Groups working with the Data Analyser.



Work Group:	Enter a Work Group Code, or use the 'Find' button to recall all Work Groups. **System Administration\Security**
Survey Types:	Enter the number ranges for this Work Group.
Observation Types:	Enter the number ranges for this Work Group.
Surveys:	Enter the number ranges for this Work Group.
Survey Features:	Enter the number ranges for this Work Group.
Treatments:	Enter the number ranges for this Work Group.

Network Indicator System Settings

Network Indicator System Settings contain the settings for which Observation Types represent the various Condition Indices required by the Network Indicator List BVPI Reports.



Condition Indices: These fields define which Observation Types contain the data for the appropriate Condition indicator.

Note – the UKPMS Network Depreciation Report will use the value of the 'Carriageway CI' Observation Type when calculating depreciation based on results of an Automatic Pass Analysis.

Network Lengths ... : Used for the Scotland Performance Indicator. Enter Network Lengths for each combination of Environment and DOT Classification to be used in the calculations.

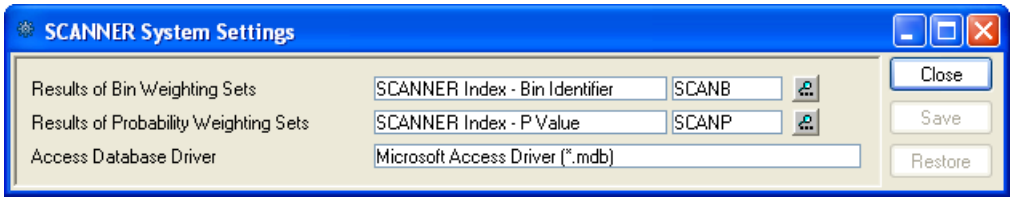
Condition Projection System Settings

Projection Rule Set: Select the Rule Set that is used by default for Condition Projection.

Projection Log File: Specify a log file that the transactions for Projection Process data will be written to.

SCANNER System Settings

The SCANNER System Settings screen holds the defaults required for running the SCANNER Road Condition Indicator.



Results of Bin Weighting Sets:	Select the Observation Type into which the results of Bin Weighting Set analysis will be put. **Note** – the UKPMS Network Depreciation Report will use the value of this Observation Type when calculating depreciation based on results of a SCANNER Road Condition Analysis.
Results of Probability Weighting Sets:	Select the Observation Type into which the results of Probability Weighting Set analysis will be put.
Access Database Driver:	Supply the driver which will be used for connection to the Access database. This is set to 'Microsoft Access Driver (*.mdb)' by default.