Confirm®

Asset Register

v20.10c.AM
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May 22, 2020
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Asset Register

The Asset Register contains details of the Assets that will be managed, maintained and/or valued within the system.

The Asset may be a Street Section, it may be a Grounds Asset such as a flowerbed or grass plot, it may be Building component such as a room, or a linear asset such as a pipe or road section.

All of these are recorded as Assets, together with details of their measurements, their condition, their value, and any other details such a manufacturer or species. Dates can be held against Assets to indicate when they were installed or when they might need replacing.

Assets are placed on Sites, and inherit from the Site the parameters applied to Site for Cost Code, Classification, Customer, Contract Area, Area and Ward. Any defaulting parameter that does not apply can be changed for that particular Asset.

**Note:** The Asset may be called 'Street Section', 'Feature', or 'Tree' depending on which flavour of Confirm you are using. Simply substitute these for the word Feature in the text that follows.

All the information concerning an Feature is held on, or linked to, the Feature form.

The Feature may be viewed in several different ways, each one emphasising a particular aspect of the Feature:

**Feature** on page 8 - this form stores the Feature, with Attributes and Valuation details and associated Inventory Items, and references (with the Inventory module). Features may be created and existing Attributes may be edited in the Feature form.

**Feature Details** on page 49 - This form presents Features in a tabbed form, which allows immediate access to Attributes, allowing them to be edited without the necessity for click on the 'Detail' button to access a sub-form. Features may not be added or deleted in this form, and only existing Attributes may be edited.

**Feature History** on page 32 - (also accessed from the 'History' menu item on the Feature from 'Other' button). The Feature History form shows details of work and inspection carried out on the Feature. It is a 'view only' form and not intended for editing Features.

Clicking on the relevant Feature icon will display the selected form

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Feature

The Feature form displays the basic Feature information in the top part of the form, with associated Inventory, references and attributes in tabs along the bottom. The lower portion of the form remains blank until the form is populated with Features. The associated Inventory and Attributes are added by reference to the Feature Group, and may be edited but not added directly in the form.

The Feature screen will optionally display an image of the Feature currently being viewed. See Feature Identification Image on page 9 for more information.

Site: The name of the Site that contains the Feature.

Note: Entering the Site for a new Feature will automatically populate the Cost Code and Classification fields from the Site.

Asset Id: A free text field into which a reference Feature number can be entered. (Optional)

The system can be set to accept only unique entries in this field.

Feature System Setting

Asset Number: Each Feature must have a unique Plot Number within the Site.

This number can be set automatically by Confirm using the following rules:

1. If the Feature Group of the Feature being created has a range set then this is used. Feature Group - Additional tab on page 102
2. If the Feature Group is not set, the range in the Feature System Settings is used. Feature System Settings on page 148
3. If the two checks above fail, a new Plot Number will be assigned by Confirm from the range 0-99999999.99 - This range cannot be changed.
Start Date: The date at which the Feature became or will become active. The box to the right will show the status of the Feature. It will be one of the following:

- Live for a Feature with a Start Date in the past and no End Date
- Live Until for a Feature with a Start Date in the past and an End Date in the future. The End Date is also shown.
- End Dated for a Feature with an End Date in the past. The End Date is also shown.
- Proposed for a Feature with a Start Date in the future. If it has an End Date, that is shown too.

To: The date at which the Feature has reached the end of its useful life, or is replaced by another version.

Features are end dated using the 'End Date' button, or when the Feature is made 'Dead'

Feature Type: Select from the Feature Type library.

Feature Type on page 98

Entering a Feature Type will bring in default Measurement Types and Units of Measure for the Type (through the Feature Group). Attributes Types, Smart Attribute Types, Date Types, and Inventory Types will also default from the Feature Type through the Feature Group.

Note: It is not possible to manually change the Feature Type of an existing Feature to one which is in a different Feature Group. If this is required, the 'Allocate Feature Type' on page 82' utility must be used.

Location: A free text field for the optional entry of a location.

Location details will be displayed on Works Orders and (optionally) on Works Tickets

Validated Date and Validated By: (Asset Validation module)

These fields are not editable, but show the date and time the Feature passed validation using the 'Batch Validate Features' utility, and the User who ran the utility.

The fields are only visible for a Feature belonging to a Feature Group configured for validation, i.e. one with a Validation Data Source specified.

If a Feature has been validated, then editing the Feature will result in a warning being displayed on saving. If the user chooses to proceed with the save, these fields will be cleared.

See Batch Validate Features for more information.

Update access to Asset Id, Feature Type, Start Date and Location of a feature is controlled by 'Feature Main (Security)' user level security setting within user and group security.

Feature Identification Image

The Feature screen will optionally display an image of the Feature currently being viewed, if this has been activated for the Feature Group (using the 'Show Identification Image' setting on the Display tab), and a suitable image is available.

The image must be an image file (bmp, jpg, png or gif) attached as a Document Link to the Feature. A URL link will not be considered.
The Feature System Settings screen has a ‘Maximum Size for Identification Image’ which can be used to limit the size of the image files considered, to prevent performance issues with large files. By default files up to 1,000kB in size are considered.

A user can indicate the preferred Identification Image on the Document Links screen. If this is not done, an image will be automatically chosen as either the oldest or most recent Document Link for the Feature (depending on the setting on the Feature Group screen), that corresponds to an image file of an appropriate size.

Clicking the image will launch it in the same way as it can be launched from the Document Link screen.

**Feature Form Tabs**

The Feature form contains a range of tabs along the bottom of the form. The tabs which may be seen, and the order in which they appear (left to right) is dictated by the ‘Display’ tab of the related Feature Group. The illustrated example shows the default display option in which all the tabs are visible and appear in the order shown above.

**Feature - Additional tab**

![Feature Form Tabs](image)

Cost Code, Classification, Customer, Contract Area, Area and Ward are defaults from the Site. These can be changed by choosing a new entry from the drop down menu. Drop down menus reference the Site Lookups.

**Hierarchy:**

(Hierarchy module)

Gives the level assigned to this Feature in a hierarchical structure.

The Drop down menu accesses the Hierarchy Lookup.

**Note:** Where the Asset Valuation module is present, the hierarchy field will be populated by default from the Feature Type Lookup, for the selected Feature Type.

**Central Asset:**

This is a unique reference number for this Feature within the whole database, used when linking to mapping data or transferring data to a mobile device.

If a value is entered for a new Feature it must be unique. If no value is entered for a new Feature, one will be generated automatically. See [Central Asset Id Seed Numbers](#) for full details.
The Central Asset Id of an existing Feature is not editable, except where the User has update access to the 'Can edit Central Asset Id' security option. The system will check that a duplicate is not created by editing a Central Asset Id.

Property Id: (Customer Services - Property/address link)

Use the pick button to select the Property this Feature represents.

The pick list references the Address Library.

Site Register/Site - Other button

Survey Date: Displays the date of the last Survey. Asset Survey (if this Feature is generated by an Asset Survey) or Condition Survey, if that was the last Survey carried out to this Feature.

Dead: Flagging a Feature as 'Dead' will remove it from any Inspection Routes that it may appear on if Tasks do not currently exist. SOR Items associated with the Feature's Regimes will also be assessed. If no other Feature on the Site uses any of the SOR Items, the Item will be deleted from the Default Gang Allocation. A warning, with the option to Cancel is provided before the change is saved.

A Feature can be optionally flagged as 'Dead' if the Site is flagged as 'Dead'.

Update access to this tab is controlled by 'Additional Tab (Security)' user level security setting within user and group security.

Feature - Inventory tab

(Inventory Module)

The Inventory tab is only present for those Features which have Inventory Types associated with them. Inventory Types are created on the Inventory tab of the Feature Group.

The Inventory tab shows each relevant Inventory Type as a folder in the left-hand pane.

If a whole folder is selected, the right-hand pane will show a list of Inventory Items contained in the folder. Double clicking an Item will display the Item details in the right-hand pane. In the illustrated example, a lighting point has been selected, and so the details of the lighting point are displayed on the right-hand side.

The way in which an Inventory Type behaves, and the information that may be stored with it depends on the parameters that were set for it against the Feature Group.
The upper part of the right-hand section of the Inventory tab defines the Item:

**Start Date:** The date at which the Feature became or will become active. The box to the right will show the status of the Feature. It will be one of the following:

- Live for a Feature with a Start Date in the past and no End Date.
- Live Until for a Feature with a Start Date in the past and an End Date in the future. The End Date is also shown.
- End Dated for a Feature with an End Date in the past. The End Date is also shown.
- Proposed for a Feature with a Start Date in the future. If it has an End Date, that is shown too.

**Survey Date:** This field will be displayed if ‘Show Survey Date’ is flagged for the Inventory Type in this Feature Group. The date of the last Survey carried out, or imported, will be displayed in this field.

**Start Distance:** This field will be displayed if an Item Type other than ‘No Distance or Width’ has been selected for the Inventory Type in this Feature Group.

The chainage position of a discrete Inventory Item, or the start chainage for a linear or Area Inventory Item should be entered here.

With module 4050, optional ‘Node’ field is available which allows user to select a node and an offset as location reference point rather than just as an absolute start distance from the start of the Section.

**End Distance:** This field will be displayed if any of the Linear or Area Item Types have been selected for the Inventory Type in this Feature Group.

The end chainage for the Inventory Item should be entered here.

With module 4050, optional ‘Node’ field is available which allows user to select a node and an offset as location reference point rather than just as an absolute end distance from the start of the Section.

**Start Width:** This field will be displayed if any of the Linear (Width) or Area Item Types have been selected for the Inventory Type in this Feature Group.

The Start Width for the Inventory Item should be entered here.
End Width: This field will be displayed if the Area (Two Widths) Item Type has been selected for the Inventory Type in this Feature Group. The End Width for the Inventory Item should be entered here.

Measurement: This will be calculated from the Start, End and Width fields if the Inventory Item Measurement is set to ‘Automatic’. A Measurement may be directly entered if the Inventory Item is set to ‘User Entered’.

See Inventory tab for information on defining Inventory Items.

Class: This field will be displayed if ‘Parent Site Class’ is set to ‘Maintain’ or ‘Default’ for the Inventory Type in this Feature Group. The entry will copy the Feature Classification.

See Inventory tab for information on defining Inventory Items.

Customer: This field will be displayed if ‘Parent Customer’ is set to ‘Maintain’ or ‘Default’ for the Inventory Type in this Feature Group. The entry will copy the Feature Customer.

See Inventory tab for information on defining Inventory Items.

These fields will be displayed if this Inventory Item has the Linked Feature set to ‘Optional’ or ‘Mandatory’ for the Inventory Type in this Feature Group.

An entry will be optional if the Feature Group specifies an ‘Optional’ Linked Feature. If the Feature Group specifies a ‘Mandatory’ Linked Feature, then the Feature cannot be saved until an Inventory Items in this Type have a linked Feature selected.

Use the fields to enter the Site and Asset Number location of the Feature that is linked to this Inventory Item.

Click the info button (i) next to the Feature pick button to open another copy of the Feature screen showing details of the Linked Feature.

The lower portion of the field contains a list of all the Attributes that have been associated with this Inventory Type.

Each Attribute may have a value assigned to it in the method defined for the Attribute:

1. Pick List - the value is selected from a drop down list of pre-defined values associated with the Attribute Type in the Attribute Lookup.
2. Number - a number between the minimum and maximum values expressed for the Attribute Type may be entered.
3. Date or Date/time - The field will allow the entry of a date, or a date and time.
4. Text - free entry of any text string is allowed, up to the length defined in the Attribute Type lookup.

Each Attribute field is followed by an optional notes field into which any free text may be entered. The notes fields may be expanded by double clicking in the field.

New Button: To add a new Inventory Item, click on the ‘New’ button on the Attribute Toolbar.

Note: Only one Item may be entered against each Inventory Type, unless the Inventory Type has 'Vary by Attribute' Attribute Type set. If the Inventory Type varies by Attribute, then several Inventory Items may be stored, provided each carries a different value from those allowed by the 'Vary by ' Attribute Type.
In the illustrated example, more than one lighting point has been entered, each one using a different Code from the ‘Code’ Attribute Type that was selected as the ‘Vary by ’ Attribute Type.

Delete Button: To delete the current Inventory Item displayed, click on the ‘Delete’ button on the Attribute Toolbar.

Copy Button: To copy the current Inventory Item displayed, click on the ‘Copy’ button on the Attribute Toolbar.

End Date Button: To End Date the current Element displayed, click on the ‘End Date’ button on the Attribute Toolbar.

Resequence Button: This button is only active when Inventory Items that ‘Vary by a numerical attribute are displayed. It may then be used to re-number all the Inventory Items (for instance to close up the gap after deleting an Attribute). Click on the Resequence button to display the Inventory Resequence filter:

![Inventory Resequence Filter](image)

**Effective Date:** The date entered here will restrict the resequence to Inventory Items ‘live’ on that date. This will default to the current date and may be edited.

**Start Value:** Enter the number to be applied to the first (topmost) Inventory Item in the list.

**Increment:** Enter a number here to define the incremental increase in the numerical sequence for the rest of the items in the list.

Click on ‘OK’ to resequence the Inventory Items.

Links Button: Select this to attach Document Links to the Inventory Item. This is also available on the ‘Referenced By’ tab. See System Fundamentals for further information.

**System Fundamentals\Linking to External Data**

Show:

Select from:

‘Current and Future’ - to display all Items that have no End Date, including those whose Start Date is after today.

‘Current’ - to display all Items with no End Date, whose Start Date is before today.

‘All’ - to display all Inventory Items, including End-Dated items.
Feature - Geography tab

The Geography tab on the Feature form records further information about the current Feature. None of the fields are mandatory.

Notes: A free text notes field
Ext Asset Id: A free text field for the entry of any relevant external reference.

Mapping: Co-ordinates are entered here, which record the location of the current Feature. If the Feature has been plotted on the Map, these may have been entered automatically.

Feature coordinates can be updated automatically when changes are made to their corresponding mapped Feature. For more details see Updating Feature Coordinates via the Map.

Update access to this tab is controlled by `Geography Tab (Security)` user level security setting within user and group security.

Feature - Valuation tab

(Valuation and depreciation module)

The Valuation tab provides the details of the initial value of the Feature, a residual Value, and the 'Active life' of the Feature.
Category: This field will carry the default Asset Category if one is entered against the Feature Type.

To change the Asset Category, select from the pick list. The pick list references the Asset Category Lookup.

Function: The Function shown is the default set against the Asset Category Lookup.

You may select another Function from the drop down list. The drop down list references the Asset Function Lookup.

Control: The Control shown is the default set against the Asset Category Lookup.

You may select another Control from the drop down list. The drop down list references the Asset Control Lookup.

Method: Select a Method from the drop down list. The drop down list references the Valuation Method Lookup.

This field will not be available if the flag of 'Include in Valuation' is not checked in the Asset Control lookup table.

Note: Valuation Method may be batch assigned using the Valuation Method Batch utility.

Repl Unit Cost: The current cost of replacing the Feature, per unit (as defined in the 'per' field below). Calculated using the Unit Cost from the Asset Category and the Factors / Supplements from the Attribute Type Values.

Residual Unit Cost: The value that the Feature will have at the end of its 'Active' period, per unit (as defined in the 'Per' field below). Calculated using the Unit Cost from the Asset Category and the Factors / Supplements from the Attribute Type Values.

Quantity: The Asset Quantity expressed in the units shown in the 'Per' field. This will be entered from the Feature Measurement.

Per: This will default from the Asset Category and may not be edited.

Replace Value: Will be calculated by Confirm, based on the Replacement Cost and Quantity.
Residual Value: Will be calculated by Confirm, based on the Residual Cost and Quantity.

Active From: The date on which the Feature began its 'life'.

To: This may be entered by default, based on the 'Useful Life' entry in the Asset Category Lookup.

The date can also be adjusted by the Life Factor entered against the Attribute Type Value.

Note: The ‘Active To’ date may be updated at a later date, using the Asset Category Batch, the Calculate Active Date utility, or in a manual Value Log entry.

Assessed: If the Useful Life of an Feature has been adjusted by a Condition Assessment, a flag will be set to indicate as such.

Val Cost Code: Use the Pick Button provided to attach a General Ledger Cost Code to a Feature.

To change the Cost Code, select from the pick list. The pick list references the Cost Code Lookup.

Update access to this tab is controlled by 'Valuation Tab (Security)' user level security setting within user and group security.

**Feature - Attributes tab**

All the Feature Attributes are displayed on this tab. These include: Measurements, Text Attributes and Dates. The order in which the Attributes are listed is set by the display order number set in the relevant lookups.
The available Attributes are set by reference to the Feature Group. Attributes may not be added or removed except by adding or removing them from the relevant Feature Group - Attributes tab.

Measurements - Are defined on the Measurement tab of the Feature Group, and require a numeric entry with up to two decimal places.

Dates - A date field is supplied for the entry of the relevant date.

Text Attributes - Only 'Pick List' and 'Text' Attributes may be included as Feature Attributes (as opposed to Inventory Attributes which may be of any type). A value is entered by selection from a drop down list, which references the values assigned to the Attribute Type in the Text Attribute Lookup.

Update access to this tab is controlled by 'Attributes Tab (Security)' user level security setting within user and group security.

**Feature - Smart Attribute tab**

(Extended Attribute module)

Clicking on the Smart Attribs tab displays all the Smart attributes associated with this Feature.
Smart Attributes can acquire their Values by directly entering them against Features. They may also acquire values from the combination of Text Attributes as defined in the Smart Attribute Lookup (with the Smart Attribute module).

**Note:** The functionality to derive Smart Attributes from Text Attributes is only available with the Smart Attributes module.

Update access to this tab is controlled by 'Smart Attributes Tab (Security)' user level security setting within user and group security.

**Feature - Referenced by tab**

The references tab will list all the Inventory Items which have been linked with this Feature in the Inventory tab of other Feature(s)

Where the Inventory Items do not vary by Distance, XSP or an Attribute, they may be edited and created in the linked Feature - 'Referenced by' tab as well as in the Feature - 'Inventory' tab of the Feature to which they relate.

The various fields are explained on Inventory Details.

Update access to this tab is controlled by 'Referenced By Tab (Security)' user level security setting within user and group security.

**Feature - Nodes tab**

Nodes are used for PMS purposes to properly define and maintain the network. They also may be used when importing condition data to simplify and assist in defining the direction of the survey.
To edit information for a node, select the appropriate node from the list in the node window. The data windows then show the details for that node, which may be edited.

To enter a new node, click on the 'Add' button:

- **Node:** A unique code of up to 20 alpha/numeric characters. Enter the node description in the adjacent node details data window.
  - Where PMS - LRP module is not present, you may use the pick button, which will be seen by the 'Add' button, to select Nodes from the Nodes library. You may edit existing Nodes, and create new ones, using this window.

- **Chainage:** 8 numbers before and 2 numbers after the decimal point may be entered. The Chainage should be 0 for the start node and the Chainage of the end node should be identical to the section length chainage. Intermediate nodes should preferably be accurately measured for chainage particularly if the section is to be split.

- **Mode:** The appropriate mode should be picked from the drop-down data window. The Drop down list references the Node Lookup in the Network Manager folder.

- **Easting and Northing:** The co-ordinates are optional and should be entered in the appropriate data windows where required.

  - **Note:** The optional coordinates may be used in spatial representation and connectivity in the future.

To delete an existing Node, select it in the list, and click on the 'Delete' button.

Update access to this tab is controlled by 'Nodes Tab (Security)' user level security setting within user and group security.

**Feature - History tab**

The History tab is used to view the Section History information that is created by the system as changes to the Feature, such as split and merge or end dating, takes place.

The window shows the ways in which the Feature existed in the past (History), and the ways in which it continues to exist (Future).
In the illustrated example, the Feature being viewed is now dead, having been split into two using the 'Split Feature' option from the 'Action' button. The 'Future' pane displays the new Features that were created as a result of the split. Each may be viewed, in the Feature form, by selecting it in the pane, and clicking on the 'Detail' button, which will only be activated when a record exists (or by double-clicking directly on it).

Conversely, each new Feature that was created as a result of the split described above will have the 'History' section of the History tab populated with the details of the original Feature that was split to create them.

Select Features for Map

This utility is used to select the Features that are to be displayed on a map. It has a number of uses depending on the modules activated.
Select: Confirm will attempt to display the selected Features in the current mapping engine as defined by the **Engine** option as shown below.

Update: After updating attributes of a Feature in Confirm, you may wish to update the attributes of that Feature’s spatial representation.

(0400 Mapping Interface module)

If the Feature cannot be found, it will be displayed so that it can be linked to an existing digitisation or it can be digitised.

(0425 Map and 0440 Referential Integrity modules)

Clicking the Update button instructs the next run of the Referential Integrity Agent to update the Map. Therefore the update may not be immediate.

Delete: This button is disabled if the Map module is enabled.

Engine: Select the mapping engine that you wish to view the selected Features. The drop-down list will show the currently available mapping engines. This option is only available when the current User has access to the ‘Can Change Mapping Engine’ User Security option.

Changing the current engine sets a User default in the Confirm database and will override the local settings value.

Clear: Clears all of the currently selected Features.

Batch: Activates the Feature filter which will allow the selection of multiple Features from more than one Site.

* Features Selected: Displays the number of currently selected Features.

**Action Button**

The Action button will contain the following options:
Copy Feature
Select the 'Copy Feature' option from the 'Action' button to create a copy of the selected Feature.

New Asset Number: Set the Asset Number to be assigned to the new Feature. This defaults to the Asset Number of the currently selected Feature.

New Asset Id: Set an Asset Id for the new Feature. This defaults to the Asset Id of the currently selected Feature.

Copy Asset Co-ordinates: This is checked by default. If checked the following will occur when the copy takes place:

1. The Co-ordinates of currently selected feature will be copied to the new feature.
2. If the selected Feature’s Feature Group has the 'Use Confirm Layers' option checked any geometry stored against it will be copied to the new Feature.

(Module 1500 - Asset Valuation & Depreciation)

Copy Asset Contains Details: Select this to copy the linkage to the Features that this Feature contains.

Copy Asset Within Details: Select this to copy the linkage to the Features that this Feature is within.

End Date Feature
The End Date Filter form will be displayed:

The record will be end dated on the date specified in the Effective Date field.
If a new version of the record is to be created, ensure that the tick box is ticked. The new version of the record will be created with its Start Date set to the date specified in the Effective Date field. Confirm will copy all Survey Data, Inventory and associated data across to the new section.
If a Feature is 'End Dated' by mistake it can be undone by removing the Effective Date and not selecting to create a new version. If a future version of the Feature has been created, the End Dating cannot be undone unless that is first deleted.

**Split Feature**

Split Sections is used to split an existing Feature into two new features with an option to keep both or only one of the resulting features. Existing Cross-Section and Survey data will be retained when Features are split and merged. The data held on the existing Features are transferred to the new Features at the correct chainages for those new Features. Any data that is not chainage related is transferred to the primary Feature that is selected by the User.

![Image of split feature form]

**Effective Date:** Sets the Start date for the new Features that will be created. This field defaults to the current date and may be edited.

**Condition Data to Not Assessed:** Check this to remove the current condition grade from the Observation Types carried with the new Features. The current grades will be held with the old (soon to be archived) Feature regardless of the selection made here.

The area of the form below the grey line is divided in half, each half representing the data that will be assigned to each of the two new Features. Both halves are completed with data relating to the current Feature, and need to be edited to reflect the parameters of the two new Features. In particular a new and unique Plot No must be assigned to each new Feature.

**Pick list ‘Split As’:**

- **Primary Section:** Feature that will inherit any non-chainage related data from the original Section.
- **Secondary Section:** Feature that will inherit assigned chainage referenced data appropriately.
- **No New Section:** No new Feature will be created for this part of the split and referenced data will remain on the old Feature.

Click on OK to carry out the split. The original Feature will be End Dated and archived and new Feature(s) will be created according to user selection for ‘Split As’ field(s).

After successful splitting, Feature inventory should be proportionally distributed in section(s) and Jobs/defects/enquiries/inspection route task records linked to feature should now point to new split feature or old original feature depending upon type of sections created.
There will be appropriate entries made on the 'History' tab for each of these three features (if user did not chosen 'No New section' during split) otherwise it would have entry for each of two features (old end dated feature and live feature).

**Merge Feature**

Using the Merge Features option two or more contiguous existing Features can be merged into one, thus forming a single new Feature. The existing cross-section and Survey data will be retained when Features are merged. The data held on the existing Features are transferred to the new Features at the correct chainage for the new Feature.

The top part of the Merge Filter screen shows the Feature details of the Feature from which the Filter was opened. This may be edited to provide the details for the new Feature that is to be created.

The central pane displays Features that are to be merged with the current Feature.

The lower part of the form gives the detail of the Feature currently selected in the central pane.

To add Features, click on the 'Insert' button. This will clear the lower fields for selection of the next Feature that will be included in the merge. You may use the pick buttons to select Site and Plot Number.

To remove Features, select the Feature in the central pane and click on the 'Remove' button.

Click on 'OK' to carry out the merge. Confirm checks that the Merge Feature Filter screen data has been completed and that the data is compatible. A warning will be issued if errors are found.

If the merge can be carried out, a new Feature is created containing all the Inventory and Survey data of the component Features, based on chainage. All original Features are End Dated and archived.

**Add to Inspection**

(Condition Survey module)

A Feature can be added directly to an Inspection Route and Action Officer to Inspect.

**Route:**

Select an Inspection Route to add the Feature to. This is limited to 'Visual' Inspection Routes only.

**Condition Survey\Condition Survey Lookups\Inspection Route**
Action Officer: Select the Action Officer to assign this Feature to. This Feature will then be downloaded the next time a Task Transfer is done for the selected Action Officer (without the need to use the 'Select Features for Inspection' utility). If an Inspection Route is entered which is already assigned to an Action Officer, this field will default to that Officer.

The User will be prompted on close if:

- The Feature is already on an Inspection Batch flagged as Complete. The Feature can be reset and re-assigned.
- The Feature is already assigned to an Officer.

**Note:** This Action menu item will only be visible if the current User has Update access to the Inspection Route window.

### End Date Inventory
End Date Inventory' end dates the Inventory associated with the currently selected Feature.

#### End Date
This will automatically default to the current time operating system date and time and may be edited.

#### Feature Group
This is selected from the drop down of available Feature Groups.

#### Cross Section
This is selected from the drop down of available cross sections that will include PMS and non-PMS cross sections that have been defined.

Click on OK to end date all the inventory on the current Feature that matches the criteria entered.

### Reverse Inventory
'REverse Inventory' will allow the User to reverse the Inventory associated with the currently selected Feature. The 'All Inventory will be reversed' warning screen will be displayed before reversal takes place. There is no filter for this option - all the inventory will be reversed. There is no date associated with the reversal. Clicking on the 'Yes' button will reverse the Inventory stored against the Feature, and also set the reversed check box for those items reversed. When the operation has finished, Confirm will display a message.

The individual items of Inventory are reversed to give the opposite cross-section position and the chainage positions are swapped end for end. The opposite cross-section position is that defined in the Cross Sectional Position screen of Network Lookups in the Reverse XSP window. The Reversed checkbox on the Inventory screen will now be ticked and greyed out.

### Validate
(Asset Validation module)
This option will validate Features against criteria defined in a Data Source.
The functionality is the same as running the Batch Validate Features utility for a single Feature, and this option is only available for a User with access to that utility. The option is also only available for Features where a Validation Data Source has been specified on the Feature Group.

It will run the appropriate validation checks for the selected Feature and display the results. There could be error messages, warning messages or a combination of the two.

If the User has update access to the Batch Validate Features utility, they will have the option to update the 'Validated Date' and 'Validated By' fields on the Feature if it passes validation, and similarly to clear those fields on a previously validated Feature that fails validation.

See Batch Validate Features for more information.

**Resequence**

The Feature screen has the capability to alter the Plot Number of an existing Feature either on the same Site, or to a different Site.

**Note:** To update multiple Features at the same time, the Feature Resequence on page 79 utility can be used.

To Resequence:

In the 'New Site' field, pick the new Site. The pick list defaults to the current Site.

Enter a new Plot Number. Plot Numbers must be unique within a Site.

Click on 'OK' to carry out the Resequencing.

**Note:** Features that have been downloaded to a mobile device cannot be resequenced. If the system detects such a Feature, a warning will be issued, and the update of that Feature prevented.

**Add Attributes**

This allows Attributes, Dates and Measurements to be added to an individual Feature, in addition to those the Feature inherits from its Feature Group.

The user is presented with a list of all Attributes, Dates and Measurements not already present on the Feature, and can select one or more to add.

Access to this ability is controlled by the 'Attributes Tab (Security)' option on the User Security and Group Security screens.

**Delete Attributes**

This allows Attributes, Dates and Measurements previously added to a Feature to be removed. Note that Attributes, Dates and Measurements inherited from the Feature Group cannot be removed.

The user is presented with a list of all Attributes, Dates and Measurements present on the Feature that are not inherited from the Feature Group, and can select one or more to remove.

Access to this ability is controlled by the 'Attributes Tab (Security)' option on the User Security and Group Security screens.
Other Button

The Other button displays a drop-down menu giving access to other, related, information. The list will vary depending on which modules are present in your Confirm licence.

Conditions

The Feature Condition form displays the Observation Types associated with this Feature.

**Note:** Observation Types default to a Feature by the selection of a Feature Type. The Feature Type belongs in a Feature Group. Feature Groups have Observation Types associated with them.

Condition Grades may be added to the Observation Types as a result of a Condition Survey (Condition Survey module). Condition Grades may also be added directly to the Feature.

![Condition Condition form](image)

The upper part of the form displays the details of the currently selected Feature and may not be edited.

The central pane displays all the Observation Type currently associated with this Feature. Where no grade has been assigned, the 'N/A' grade specified in the Parameters associated with the Observation Type will be applied.

- **Condition Rating:** Adds together all Observation Type Grade scores (after multiplying them by the Weighting) that are flagged 'Condition Assessment' on the Additional tab of the Observation Type Lookup.

- **Failure Rating:** (Risk Assessment and Activity Log module) Adds together all Observation Type Grade scores (after multiplying them by the Weighting) that are flagged 'Condition Assessment' and 'Failure Mode' on the Additional tab of the Observation Type Lookup.

The fields in the lower part of the form display the details of the Observation Type that is currently highlighted in the central pane, and may be used to add new Observations Types, edit existing Observation Types, and delete Observation Types.
To amend a Condition Grade:
In the Grade field, enter (or select from the drop down list) the appropriate Observation Parameter. The score will be derived from the selected Observation Parameter. Alternatively you may enter a score, and the grade will be derived from the Observation Parameter. For any Parameter, the score may be edited within the 'Min' and 'Max' range specified in the Observation Parameter lookup for the selected grade.
Click on the 'update' button to save the record.

The drop down list references the Observation Type and Observation Parameter Lookups.

Note: Condition Grades can be batch assigned using the Allocate Condition Values tool.

To Add an Observation Type:
Click on the 'New' button. In the 'Observe Type' field, enter (or select from the pick list) an Observation Type. The pick list references the Observation Type Lookup.

To delete an Observation Type:
Select the Observation Type in the list, and click on the 'Delete' button. Click on 'Update' to save the deletion.

Connectivity
(Connectivity module)
The connectivity form displays connections that have been set up between this and other Features.

To add a Connection:
Click on the 'New' button
In the 'Connects' field, enter (or select from the drop down list) the appropriate Connection Mode.
The drop down list references the Connection Mode Lookups.

Note: Connection Modes and Opposite Modes will be available in the drop down list, allowing the user to express connections from, and connections to.
Enter the Site, Feature Id or Plot Number of the Feature that is connected with this one.
Click on the 'Save' button to save the record.

Note: Entering a connection for this Feature will automatically enter the related connection for the connected Feature. So, entering a Connection Mode from Feature A to Feature B, will enter the Opposite Mode against Feature B to Feature A
Connections, once entered and saved, cannot be amended. You can however, delete an existing Connection, and enter a new one.
To Delete a Connection:
Select the connection in the list. Click on the 'Delete' button.

Cost Code (Overriding)

Cost Codes
(Asset Maintenance module)
Displays the list of overriding Cost Codes and allows new ones to be added.
An overriding Cost Code allows for a different Cost Code (from the one applied to the Feature) to be applied if certain work is carried out. The types of work (SOR Items) which require an overriding Cost Code are defined by Schedule (See Asset Maintenance - SOR Schedules for details on how to assign SORs to Schedules)
When work is raised on this Feature, and SORs applied to define the work, the Feature Cost Code will be replaced by the overriding Cost Code, if the SOR is in the Schedule specified.
Multiple Schedules and overriding Cost Codes can be applied to the same Feature.

To apply an overriding Cost Code:
Click on the New button.
In the Schedule field enter (or select from the drop down) the required Schedule. The drop down list references the Schedule Lookup.

Asset Maintenance\SOR Item Lookups.
In the Cost Code field, enter (or select from the pick list) the Cost Code that should be applied to work carried out under the selected Schedule. The pick-list references the Cost Code Lookup.

Site Register\Site Lookups\Operational Site Lookups.
Click on Update to save the Overriding Cost Code.
Note: Overriding Cost Codes can be batch applied using the Allocate Overriding Cost Codes filter.
Hierarchy
(Hierarchy module)

A Hierarchy level must be assigned to this Feature before the Hierarchy form can be opened.

An appropriate Hierarchy level must also be applied to Features which contain this one (higher level), and to Features which will be contained within this one (lower level).

The Hierarchy form displays this Feature in relation to other Features:

The Feature Hierarchy form allows the currently selected Feature to be viewed in relationship with the Feature it is Within, and the Features it Contains.

The 'Within' section of the form will display the Feature that the current Feature is 'within'. Site, Feature Id, Location and Plot Number are displayed and are not editable in this form.

The following fields display the current Feature. Site, Feature Id, Location and Plot Number will be shown and are not editable in this form.

The 'Contains' section of the form will display the Feature contained by the current Feature. You may select an Feature by clicking on it. The fields below are then populated with the Site, Feature Id, Location and Plot Number relating to the selected Feature. Click on the 'Feature' button to view the currently selected Feature in the Feature form.

To add a 'Contains' Feature

Click on the 'New' button and enter the new Feature details in the fields below the 'Contains' list:

Site: Enter a Site, or select from the pick list. The pick list references the Site Register.

Feature Id: Enter or select from the pick list. The pick list references the Asset Register and displays all Features in the currently entered Site.

Note: Plot Number will be entered automatically on selection of a Feature Id.
Plot No: Enter or select from the pick list. The pick list references the Asset Register and displays all Features in the currently entered Site.

**Note:** Feature Id will be entered automatically on selection of a Plot number

**Note:** You may only add 'Contains' Features that have a hierarchy level lower than the hierarchy level assigned to the current Asset.

**To delete a 'Contains' Feature**
Select the Feature by clicking on it in the list, and click on the 'Delete' button.

**Feature History**
(Asset Maintenance module)
The Feature History of Routine and Non-Routine work carried out is held against the Feature. Condition Survey Inspections and Defects logged are also recorded where the Condition Survey module is present. The history can be viewed in the Feature History form.

Features must be recalled into the form using the 'Find' button.
The Feature History form then displays the following information in the main part of the form:
Site, Area, Feature Id, Plot number, and Location. These cannot be edited in the Feature History form.
The small drop down menu at the right of the main form allows the selection of the level of details to view:
- 'History' - To view archived work and Defects.
- 'Current' - To view current work and Defects.
- 'All' - To display the full history of archived and current details.

History is stored on the tabs along the bottom of the form:

**Defect:** Lists Defects raised against this Feature (Condition Survey module). Use the Detail button to view the Defects in the Defect form.
Job: Lists Jobs raised and committed or archived against this Feature. Use the Detail button to view the Jobs in the Job form.

Inspections: Lists Condition Survey Inspections carried out on this Feature (Condition Survey Module). Use the Detail button to view the Inspection details in the Inspection Batch Feature form.

Regime History: Lists the 'Routine' Regimes that were used on committed Routine Works Orders, and the Financial Periods for which the Orders were raised.

' Ciclic' Regimes result in Jobs, therefore the history relating to maintenance under these Regimes is held as Jobs on the Job tab.

Jobs
(Asset Maintenance Module)
Displays current Jobs, and allows the entry of new Jobs for this Feature.

See 'Maintenance Management - Job' for details on Jobs.

Document Links

Document Links can be created to point to any file in the system, allowing relevant photographs or text documents to be associated with a record.

Click the Links button to display the Document Links form, listing the documents linked to the corresponding record. If there are already Document Links associated with the record then the Links button will be highlighted with a border.

Confirm 33 of 166
The screen lists the currently linked files. The fields below the list give specific information about the selected Link.

**Note:** For Documents Links created from Street Works Notice, Inspections and Fixed Penalty Notices an extra column will be displayed. This column will notify whether this document was received via EToN or not. This column will not be displayed for Document Links on Features, Enquiry or Jobs.

**To add new Links:**
Click on the New button and enter the document details.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>A free text field used to annotate the file. This field is required while publishing a document from Street Works, otherwise it is optional.</td>
</tr>
<tr>
<td>Document Location</td>
<td>Enter or select the path to the required document.</td>
</tr>
<tr>
<td>Copy Button</td>
<td>Copy Button: This button will copy the fully-qualified path of the Document Location to the clipboard, resolving any location prefixes.</td>
</tr>
<tr>
<td><strong>Document Date</strong></td>
<td>A date and time for the Link. This defaults to the current system time but can be edited freely.</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Last Modified (by)</strong></td>
<td>The date and time when this Link was last modified, and the User who made the change. This cannot be edited.</td>
</tr>
</tbody>
</table>
| **Upload to Document Store** | This is only available if a 'Document Store Folder' or a 'Web Service URL' has been specified in the **Document Link System Settings** screen.  
If this is ticked, the Document will be transferred from its current location to a central document store when the screen is saved. After uploading the file to a central document store the 'Document Location' value will be changed to reflect the new location of the document, and depending on the type of document store being used the location may be prefixed with either `$Document Store$` if the central document store is set to 'Folder', or `$Document URL$` if set to 'Web (PUT)' or 'Web (POST)'. This prefix will be applied to all links uploaded to a Folder document store, but this may not be true for a 'Web' document store if no part of the returned URL matches the 'Document Link URL Prefix'.  
For more information on Document Stores see **Document Link System Settings**. |
| **Delete Original File after Upload** | This is only available if Upload to Document Store is ticked.  
If this is ticked, the local file will be deleted after it has been successfully transferred to the Document Store. |
| **Download** | Allow to browse to an accessible location and download the attachment. |
| **Identification Image** | This is only available when viewing Feature Document Links, where the Feature belongs to a Feature Group for which an image is shown on the Feature screen.  
By default, the first appropriate Document Link in the list will be used as the image. This field may be ticked to override this behaviour and choose a specific image for display. The Description of the Document Link record will be updated to show that this has been done.  
For more details see **Feature Identification Image**. |

Once the details for one or more Links have been entered, click Save to store the details.

**Document Location Prefixes**

If a document was selected for transfer to a central document store, or was a Street Works link that was published, then part of the path or URL to that file is often replaced with a prefix. There are several prefixes in use and each has a different value.

<table>
<thead>
<tr>
<th><strong>Prefix</strong></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>$Document$</code></td>
<td>This is used for photos uploaded from a hand held device via the Confirm connector. Its value is equivalent to the 'Document Store Folder' setting in the Document links System Settings screen.</td>
</tr>
<tr>
<td><code>$Document Store$</code></td>
<td>This is used for documents uploaded to a central document store that is set to be a 'Folder' type. Its value is also equivalent to the 'Document Store Folder' setting in the Document links System Settings screen.</td>
</tr>
<tr>
<td><code>$Document URL$</code></td>
<td>This is used for documents uploaded to a central document store that is set to be a 'Web (PUT)' or 'Web (POST)' types. Its value is also equivalent to the 'Document Link URL Prefix' setting in the Document links System Settings screen.</td>
</tr>
</tbody>
</table>
Asset Register

| $ORG_PREFIX$ | This is specific to Street Works document links and is used when a document is Published. It's value is dependant on the Organisation that the document link is related to. The value is equivalent to the 'Attach. URL' setting in the Organisation screen, for the Organisation that the link is related to. |

To modify an existing Link:
Click the link in the list and modify the Description or Document Location as required, then click Save.

To view a currently linked file:
With the required file highlighted, click on the 'Launch' button. The associated program is launched and the file displayed.

To delete a Link:
Click the link in the list, then click the 'Delete' button. The link will be removed from the list, but the file will not be deleted.

Security of Linked items:
There is a generic User Security option which can be used to selectively prevent Users from either adding, deleting or modifying (e.g. changing the Description or Document Location) items linked to entities in Confirm. This option appears in the Security section of the menu when configuring privileges on the User Security and Group Security screens.

Document Links in Street Works
The document links feature within Street Works has extended functionality. Refer to the document links section of the Street Works help for more information.

Street Works\Document Links

Problems Uploading to the Document Store
Problems may be encountered when using the 'Upload to Document Store' setting, especially when using a web service document store, where the document may travel across a network to an external application.

If problems do arise then any changes made to the document link details, such as dates and description, will still be saved to the Confirm database, however the document link will not be updated and the document will remain in its original location. It will not be deleted, even if 'Delete Original File after upload' was selected.

Uploading to a Web Service is highly dependant on external applications, and it is not possible for Confirm to interpret all of the possible errors that may arise once the document is sent out. If an error does occur then Confirm will display "Failed to upload - the following error was returned by the Web Service:" followed by the error message that is returned to it from the external application.

Regimes
(Asset Maintenance Module)
Displays the currently allocated Regime(s)

**To add a Regime to the Feature:**
Click on the 'New' button.

**To remove a Regime from this Feature:**
Select the Regime in the list.
Click on the 'Delete' button.

**Note:** Regimes can be batch removed using the Remove Regimes function.

Regime: Enter in the 'Regime' field (or select from the pick list) the required Regime.

**Note:** Regimes can be batch allocated using the Allocate Applicable Regimes function.

**Asset Maintenance\Allocate Applicable Regimes**

Cycle: If the Regime has been flagged as Cyclic, the Allocated Regimes form displays the Cycle in which this Feature will have the work carried out. Use the spin buttons to change the cycle.

**Note:** Cyclic Regimes can be allocated using Allocate Regimes function, which will also allow the cycle to be set for batches of Features.

Date next Due: If a date is entered here, it can be used in Cyclic maintenance to Raise Jobs from Regimes, based on the date when the work is due.
Also used by Repeating Job regimes in order to create the first Job. The actual date has no impact on when the Job is due to be created. Subsequent Jobs will be created based on the Repeating Period set against the Regime.

Contract: Supply a Contract which will be used as a default when Jobs are created. This is only available for 'Repeating Jobs' Regimes.
This lookup references the **Contract lookup**.

Gang: Supply a Gang which the created Jobs will automatically be assigned to. This is only available for 'Repeating Jobs' Regimes.
This lookup references the **Gang lookup**.

Officer: Supply a Officer which will be used as a default when Jobs are created. This is only available for 'Repeating Jobs' Regimes.
This lookup references the **Action Officer lookup**.

**Valuation Log**

The Valuation Log will amend Valuation results in line with changes in the component factors (such as Active To date, or Replacement Value) that make up the valuation. Therefore a Valuation log need only be created where such changes have occurred. The ongoing Valuation is derived from the Asset Valuation Report.
An entry can only be made through running the Asset Value Log Batch utility or creating a manual Log record. Creating a new entry will end date the previous record.

Site: Copied from the Feature form - cannot be edited.
Asset Id: Copied from the Feature form - cannot be edited.
Asset Number: Copied from the Feature form - cannot be edited.
Log No: Each Log entry will be automatically numbered.
Log Time: Automatically populated by Confirm.
Log Effective From: The date at which an entry is made into the Valuation Log.
   Note: If the Log Effective From date predates existing log records, then those records will be invalidated by this entry.
Log Effective To: Upon a new record being made in the Valuation Log, the previous Log entry will be end dated.
Logged by: The user who created the entry.
   Populated by the batch process, and not editable on manual entries.
Method: The Valuation Method used.
Asset Register

Copied from the Valuation tab of the Feature form when the Value Log Batch process was run but available for editing on manual entries. Select from the drop down list references the Valuation Method Lookup.

Reason: The reason why the Valuation entry was made. Allows differentiation between different types of transactions.

Populated by the batch process but available for editing on manual entries.

Active From / To: Copied from the Valuation tab of the Feature form.

Replace Unit Cost: Copied from the Valuation tab of the Feature form when the Value Log Batch process was run.

Editable on manual entries.

Per: This will default from the Asset Category and may not be edited.

Quantity: Copied from the Valuation tab of the Feature form when the Value Log Batch process was run.

Editable on manual entries.

Residual Unit Cost: Copied from the Valuation tab of the Feature form when the Value Log Batch process was run.

Editable on manual entries.

Residual Value: Will be calculated by Confirm, based on the Residual Cost and Quantity.

Replace Value: Will be calculated by Confirm, based on the Replacement Cost and Quantity.

Actual Cost: A multi-purpose expenditure field.

Can be used to record the cost of an Asset, or the value at which it was sold. Alternatively, it could be used to record any significant investment in the Asset, e.g. major rehabilitation. This figure could then be compared with the change in the value of the Asset to determine a profit / loss for the transaction.

Current Value: When either the Asset Value Log Batch utility is run, or a manual entry made, the system will calculate the Current Valuation using the Log Effective Date as the Valuation date. The Current Value will never be entered at less than the Residual Value.

Note: where a valuation method is used which is flagged 'Use Current Value in Formula', the Current Value field is available to be edited. This will then use the Valuation Method to calculated depreciation using the previous log's Current Value, or Replacement Value if there are no existing logs. See Valuation Method.

Current Value, if manually entered, is not changed when other values in the form are changed.

Previous Value: When either the Asset Value Log Batch utility is run, or a manual entry made, the system will calculate the Current Valuation using the Log Effective Date as the Valuation Date.

If a previous Log entry exists, Confirm will calculate what the value would have been, at the new Effective From Date, based upon the old Replacement Costs, Method and Active From and To dates.
This can then be compared with the Current Value.

**Acc Depreciation:** Calculated by the system. The Accumulated Depreciation is equal to the Replace Value less the Current Value. If the 'Surplus/Deficit in Revaluation Reserve' flag for the chosen Reason is ticked this field will be zero. See **Valuation Reason**

**Surplus/Deficit:** Calculated by the system. The Surplus/Deficit is equal to the Current Value less the Previous Value and the Actual Cost. If the 'Surplus/Deficit in Revaluation Reserve' flag for the chosen Reason is ticked this field will be zero. See **Valuation Reason**

**Revaluation Reserve:** Calculated by the system. The Revaluation Reserve is the sum of all the Revaluation Increments for the life of feature. This will always be zero if the 'Surplus/Deficit in Revaluation Reserve' flag for the chosen Reason is not ticked. See **Valuation Reason**

If a log is performed for a Reason that does not have the 'Surplus/Deficit in Revaluation Reserve' flag set after a log that did use the flag, then the money in the Revaluation Reserve will be moved into the Revaluation Reserve Increment. Generally this case does not arise since the flag settings are usually consistent.

**Revaluation Increment:** Calculated by the system. This is directly equivalent to the Surplus/Deficit but will always be zero if the 'Surplus/Deficit in Revaluation Reserve' flag for the chosen Reason is not ticked. See **Valuation Reason**

**Valuer:** The people or organisation undertaking the valuation. Populated by the batch process but available for editing on manual entries. Select from the drop down list references the **Valuer Lookup**.

**Notes:** Where the entry was created by the batch process the text of 'Calculated by batch process' will be entered automatically. Available for editing on manual entries.

The Asset Valuation Log may also be used to make auditable changes to the value of an asset, as a result of price increases, or an extension or curtailment of the 'Active life' of the Asset, or a re-valuation of the Asset.

**Activity Log**

*(Asset Register - Activity Log)*

The Activity Log allows users to maintain a record of future proposed activities, with associated costs. This information, when combined with a Condition Survey to apply an assessment of the Feature in terms of a Failure Mode Observation Type, will provide reporting on the possible future costs of maintaining the Feature to an approved standard.
Site, Feature ID, and Plot Number are copied from the Feature and cannot be edited.
Use the drop down to select 'Proposed', 'Cancelled', 'Actioned' or 'All' Activities to view.

**To add an Activity to the Activity Log:**

**Activity Class:** Select an Activity Class from the drop down list. The drop down list references the Activity Class lookup.

**Status:** Select a Status - Proposed, Actioned or Cancelled.

**Date:** Enter a date, which can either reflect the logged date, or the date by which a proposed action should be actioned. The date will provide a filter option in the Prioritised Action Report, and appear in the report.

**Fin Period:** Select a Finance Period

**Description:** An optional free text field. Text entered here will be displayed in the Prioritised Action Report.

**Notes:** An optional free text field.

**Budget Cost:** Enter a cost for the Activity.

**Logged:** The User name and current date are entered and cannot be amended.

Click on 'Update' to add the Activity. Several Activities can be logged against the Feature. Click 'New' to add a new Activity. Click 'Delete' to remove an unwanted Activity.
Maintaining the Activity Log:
The Activity log is manually maintained by updating the Status (to ‘Actioned’ or ‘Cancelled’) and adding any appropriate notes.

Links button

*Action button*

The Action button on the Activity Log screen allows a Job to be raised from the selected Activity Log record and for existing Jobs to be viewed.

Select from:

‘Raise Works’ - Select this to raise a Job for the currently selected Activity Log record. Once a Job has been raised, the selected Activity Log record will be updated to ‘Actioned’.

‘View Works’ - Select this to view the Jobs that have been raised for the current Activity Log.

To Raise Works

Once ‘Raise Works’ has been selected, the Job Creation Filter will open so that the key Job details can be provided.

![Job Creation Filter]

Site & Feature details: The Site and Feature details will be pre-populated when the filter opens and cannot be modified.

Priority: Select from the drop down menu the Priority that should be assigned to the Job.

SOR Group: Select from the pick list an SOR Group.

Length, Width, Depth, Quantity: Enter the values to be allocated to the SOR items within the selected SOR Group. **Note:** Confirm will check each SOR Item's Unit of Measure and only apply the relevant values.

Cost Code: Leave blank to use the Feature Cost Code (or overriding Cost Code). Select from the pick list to use another Cost Code.
Option: Select from:

'Create Job and finish' - This will create the Job but does not display the Job afterwards.

'View Created Job' - This will create a Job and display it in the Job screen.

'Create Works Order' - This will create a Job and Works Order. This option does not display the Job or Works Order afterwards.

'Commit Created Works Order' - As above, but will attempt to Commit the Order.

'Print Committed Works Order' - As above, but will display the Order Print Filter, ready to print the Works Order.

The following fields need only be completed if 'Create Works Order', 'Commit Created Works Order', or 'Print Committed Works Order' are selected from the 'Option' drop down list:

Contract: Select from the pick list. The pick list references awarded Term Contracts and Non Term Contracts.

Contractor: Entered automatically if a Term Contract is selected. If a Non Term Contract has been selected, select a Contractor from the pick list.

Work Type: Select from the drop down menu.

Price Factor: Select from the drop down menu. The drop down list references Price Factors associated with the selected Contract.

Action Officer: Specify the Action Officer that the created Job will be assigned to. This defaults to the currently logged in Action Officer (if the Action Officer is linked to a User record) but can be changed if required.

External Ref: An optional free text field which will populate the Order header 'External Ref' field.

The Activity Class and Description from the selected Activity Log record will be transferred to the Job Description field.

Click 'OK' to process the Job (and Order, if selected) through to the stage requested in the 'Option' field.

Surveys
Displays the Survey Section form. This is described fully in the Network Manager manual.

Note: only sections of a Feature Type which are in a Feature Group of the Feature Group Class Linear Asset may be correlated.

Cross References - Sites
(SG Level 3 Compiler module)
The Cross-Reference Site option will display the Cross Reference Section to Street form, displaying Streets (of all Street Record Types) cross-referenced with this Section (ESU). (Gazetteer level 2 and 3 cross-references).

The current Section details are displayed in the upper part of the form and cannot be edited. The lower fields display the Street currently selected in the Cross Reference Sites pane.

**To add a new cross-reference**

Click on New and select the cross-referenced Site in the lower fields. Click on 'Update' to save.

**To remove a cross-reference**

Select the Site in the Cross Reference Sites pane, and click on the 'Delete' button.

**Note:** Only sections of a Feature Type which are in a Feature Group of the Feature Group Class Linear Asset may be correlated.

**Network Correlation**

(SG Level 3 Compiler module)

ESUs may be correlated with maintenance Sections (PMS Sections), so that changes to the Maintenance Sections will update the cross-referenced ESUs.

Correlating consists of relating lengths of ESU to lengths of maintenance Section, as defined by a start and end chainage for each.

Maintenance Sections may include several ESUs, parts of ESUs, or may themselves be split over several ESUs

**Note:** Only sections of a Feature Type which are in a Feature Group of the Feature Group Class Linear Asset may be correlated.
Click on the New button and use the lower fields to identify the correlated Section and define the correlation:

**Chainage From:** Enter the distance from the start point of the current Section, that corresponds to the from point of the Section that is being Cross referenced.

**To:** Enter the distance from the start point of the current Section that corresponds to the To point of the Section that is being Cross referenced. **Note:** The To field may contain a point closer to the start point than the From field. In other words, the link may run backwards.

**Site:** Select the Site that contains the section which is being correlated with this one.

**Asset ID / Asset Number:** Select the Section that is being correlated with this one.

**Chainage From:** Enter the distance from the start point of the Section being cross-referenced that corresponds to the from point of the current Section.

**To:** Enter the distance from the start point of the Section being cross-referenced that corresponds to the To point of the current Section.

Where Cross-references are split between Sections, part of one section is cross-referenced with the first Section, and the remaining Chainage is cross-referenced with the next Section.

**Note:** These cross-references are purely functional within Confirm in order to be able to maintain ESUs data from Maintenance Section data. All Gazetteer Cross-references (Street to Street, and Section to Street) are stored at Site level and may be viewed from the Street Other button.

**Traffic Count Survey**

(Traffic Count Data module)

Traffic Count Survey screen displays the existing Traffic Surveys on the Asset.

The Surveys section will display all the Traffic Count Surveys against the selected Asset. The data will be sorted on the basis of the Start Date and the End Date of the Surveys.
Survey Number: An 8 digit number. This is automatically entered by Confirm from the next available Seed Number.

Survey Name: A 30 character name or description as appropriate for each Traffic Count Survey.

Survey Type: Select from the Survey Type lookup. Only Survey Types that have a Source Type of 'Traffic Count' are displayed.

It is only possible to change the Survey Type of an existing Traffic Count Survey to ones of a similar Survey Type, i.e. same Time Slot Level and Attribute Type as the existing Survey Type.

Start Date: Select the Start Date of the Survey.

End Date: Select the End Date of the Survey.

Notes: A free form text field used for storing notes about the Survey.

Count Data: The Count Data button will open the Traffic Count Data screen, which will display the Traffic Count data associated with the Survey.

Validation is applied to the Start and End Date fields of a Traffic Count Survey. If there is Traffic Count data associated with the Survey then the Start Date of the Survey cannot be changed to be after the earliest date of the Traffic Count data, and the End Date of the Survey cannot be changed to be before the latest date of the Traffic Count data.

**Traffic Count Data**

(Traffic Count Data module)

The Traffic Count Data screen displays the existing Traffic Count Data against a Traffic Count Survey. There are two types of Traffic Count Survey, Automatic and Manual, which is determined by the Survey Type selected against the Traffic Count Survey. Manual Traffic Count Surveys are identified as ones which have a Survey Type with an Attribute Type specified. The Traffic Count Data screen is displayed very similarly for both types of Traffic Count Survey, with just minor differences if it is being opened for a Manual Traffic Count Survey. These differences are highlighted below when they occur.
The Traffic Count Data section will display all the Values for Survey Data against the selected Traffic Count Survey. The data will be sorted on the basis of the Date and Time Slot of the Traffic Count Data.

The Traffic Count Data section will have the necessary Time Slots pre-populated on the basis of:

- The Time Slot Level of the Survey Type.
- The Start Date and the End Date of the Traffic Count Survey.

Only Time Slots which are not marked as 'Dead' will be displayed, unless Count Data has already been stored against them.

Value: Enter the Value for the Traffic Count Data.

Notes: A free form text field used for storing notes about the Traffic Count Value.

For Manual Traffic Count Surveys, the Traffic Count Data section will have an additional column to display the Attribute Values for the Attribute Type specified against the Survey Type. The Traffic Count Data section will have the necessary Time Slots pre-populated on the basis of:

- The Time Slot Level of the Survey Type.
- The Attribute Values for the Attribute Type.
- The Start Date and the End Date of the Traffic Count Survey.

The Attribute Values will be sorted on the basis of the Display Order against them. Only Attribute Values which are not marked as 'Inactive' will be displayed, unless Count Data has already been stored against them.
Entity History Report

(Audit Trail Module)

Click on 'Entity History Report' to view an Entity History Report for all the Historical Log entries associated with this Feature record.

See 'Entity History Report' for more information on Entity History Report.
Feature Details

The Feature Details form displays Features with the emphasis on the details held on the lower tabs of the Feature Form. These details are tabbed in the same way (Measurement Type, Attributes and so on) but the data contained on those tabs is immediately accessible for editing without the necessity to click on a Detail button.

This makes the Feature Detail form the ideal tool for editing Measurement types, Text and Smart Attributes and Dates.

The form also has tabs for viewing Defects, Connections and Connection Defects (with the Condition Survey and Connectivity modules).

The Feature Details forms cannot be used to create new Features, or to add Measurement Types, Dates Type, Text or Smart Attributes Types to existing Features. Only the Values can be edited.

Feature Details must be recalled in to the form using the 'Find' button. The Feature Details form then displays the following information in the main part of the form:

Site, Feature Id, Location, Plot number, Area, Plan Number and External Ref. These cannot be edited in the Feature Details form

Additionally, the Site Category is displayed, and an indication as to whether Works have been raised or committed against this Feature. These fields cannot be edited.

Classification (Net Priority) is displayed, and is the only one of these fields that can be edited. Use the drop down list to change the Classification.
Feature Details - tabs

Text Attribs: (Extended Attributes module)
All the currently assigned Text Attributes Types are displayed, and can have new Values assigned to them by entry from the Drop down lists.

The drop down list references the Attribute Type Lookup.

Smart Attribs: (Extended Attributes module)
All the Smart Attributes Types associated with this Feature are displayed as a list.

To edit the Value, select the Type in the list, and enter (or select from the pick-list) the new Value in the field below.

The pick list references the Smart Attribute Type Lookup.

Measures: All the currently assigned Measurement Types are displayed, and can have new values assigned to them by typing in the relevant fields.

Dates: (Extended Attributes module)
All the currently assigned Date Types are displayed, and can have new values assigned to them by entering new dates.

Defects: (Condition Survey module)
Displays Defects recorded for this Feature

Connect: (Connectivity module)
Displays the connections set up for this Feature.

Con Defects: (Condition Survey and Connectivity modules)
Displays Defects recorded against connected Features.

Other button

The Other button displays a drop down menu giving access to other, related, information. The list will vary depending on which modules are present in your Confirm licence.

Feature: Displays Feature Form for this Feature.

History: (Asset Maintenance module)
Displays the Feature History form for this Feature.

Jobs: (Asset Maintenance module)
Displays the Job form with Jobs carried out for this Feature. New Jobs can be entered for this Feature.

Defects: (Condition Survey module)
Displays the Defects form, with Defects raised against this Feature. New Defects can be entered for this Feature.
Feature History

(Asset Maintenance module)

The Feature History of Routine and Non-Routine work carried out is held against the Feature. Condition Survey Inspections and Defects logged are also recorded where the Condition Survey module is present. The history can be viewed in the Feature History form.

Features must be recalled into the form using the 'Find' button.

The Feature History form then displays the following information in the main part of the form:

- Site, Area, Feature Id, Plot number, and Location. These cannot be edited in the Feature History form.

The small drop down menu at the right of the main form allows the selection of the level of details to view:

- 'History' - To view archived work and Defects.
- 'Current' - To view current work and Defects.
- 'All' - To display the full history of archived and current details.

History is stored on the tabs along the bottom of the form:

**Defect:** Lists Defects raised against this Feature (Condition Survey module). Use the Detail button to view the Defects in the Defect form.

**Job:** Lists Jobs raised and committed or archived against this Feature. Use the Detail button to view the Jobs in the Job form.

**Inspections:** Lists Condition Survey Inspections carried out on this Feature (Condition Survey Module). Use the Detail button to view the Inspection details in the Inspection Batch Feature form.

**Regime History:** Lists the 'Routine' Regimes that were used on committed Routine Works Orders, and the Financial Periods for which the Orders were raised.
‘Cyclic’ Regimes result in Jobs, therefore the history relating to maintenance under these Regimes is held as Jobs on the Job tab.
Feature Activity Log

(Asset Register - Activity Log module)

The Feature Activity log provides the means of logging future proposed actions against in Feature, with an expected cost as a Budget.

These future actions, or Activities are classified into Activity Classes, which provide a means of filtering and reporting on classes of Activities.

The Prioritised Activity Report will depend on the Feature carrying a Condition rating (as a result of having Condition Grades with Scores applied) or a Failure Rating (as a result of having Condition Grades applied to ‘Failure Mode’ observation Types, with scores). These ratings are then used to prioritise the report (highest scoring Feature Activities appearing at the top of the list - lowest scoring at the bottom).

The Feature Activity Log is used to display current Activities, and to add new ones.

The Feature Activity Log may be accessed in two ways:

• From the menu item in the Asset Register folder.
• From the Feature ‘Other’ button. If accessed from the Feature, the Activity Log will display all Activities currently logged against the currently displayed Feature.

Where the Activity Log is accessed from the Feature - ‘Other’ button; Site, Feature ID, and Plot Number are copied from the Feature and cannot be edited. otherwise the Site and Feature details must be entered or picked.

Activity Class: Select an Activity Class from the drop down list. The drop down list references the Activity Class lookup.

Status: Select a Status - Proposed, Actioned or Cancelled.

Description: An optional free text field. Text entered here will be displayed in the Prioritised Action Report.

Date: Enter a date, which can either reflect the logged date, or the date by which a proposed action should be actioned. The date will provide a filter option in the Prioritised Action Report, and appear in the report.
Budget Cost: Enter a cost for the Activity.

Notes: An optional free text field.

Fin Period: Select a Finance Period.

Logged: The User name and current date are entered and cannot be amended.
Risk Management

The Risk Management module provides the functionality to dynamically run a risk analysis on a set of assets to determine the risk factor they impose on their environment.

The risk analysis is based on a matrix combination of assets 'current state' data and risk model data. This module includes the definition of asset failure modes, risk classifications, consequences of failure, associated consequence severities and the calculation of failure probabilities based on condition or age.

The risk analysis results can be used to identify the mitigation activity required. These mitigation activities along with other information about the activity can be recorded against the relevant assets with the ability of updating their failure probabilities/condition and/or features classifications with the revised values as a result of the mitigation carried out.

The module includes extensive summary and detailed level reporting facilities that allow filtering on all major risk data fields plus various sorting options.

History log functionality can be activated in order to track and report on the risk management processes being carried out in the system.
The risk management folder contains all the libraries, utilities and reports for assigning values to risk factors, and for extracting information concerning the risks associated with particular Assets.

**Consequence of Failure**

The Consequence of Failure Grid defines for each Failure Mode in each Risk Class for each Feature Group the Severity of Outcome of each Consequence.

For example Structural Failure (Failure Mode) of a Sewer Pipe (Feature Group) in the central city located under a building and 1200mm in diameter (Risk Classification) will result in a Major (Severity of Outcome) Loss of Service (Consequence).
Failure Mode: Each entry in the Observation Type lookup which has been flagged ‘Failure Mode’ will appear in this column

Consequence: Each entry in the Consequence Type lookup will be entered here

Severity: Select the appropriate Severity for this combination of Failure Mode and Consequence from the drop down list. The drop down list references the Severity ratings entered against the Consequence Type.

If the Outcome Severity is not applicable for one of these combinations leaving the Severity unpopulated will omit it from the Risk Assessment.

This in turn gives the total Cost of Failure or weighted Consequence Score associated with the given Failure Mode for the Asset.

Note: If a different Risk Type is assigned to a Feature Group, a new group of Consequence of Failure records will need to be populated in the Grid.

If however, the original Risk Type is reassigned to the Feature Group, when a new record is created in the matrix, the Severity of Outcomes that were originally stored will be populated again automatically.

Feature Activity Log

(Asset Register - Activity Log module)

The Feature Activity log provides the means of logging future proposed actions against in Feature, with an expected cost as a Budget.

These future actions, or Activities are classified into Activity Classes, which provide a means of filtering and reporting on classes of Activities.

The Prioritised Activity Report will depend on the Feature carrying a Condition rating (as a result of having Condition Grades with Scores applied) or a Failure Rating (as a result of having Condition Grades applied to ‘Failure Mode’ observation Types, with scores). These ratings are then used to prioritise the report (highest scoring Feature Activities appearing at the top of the list - lowest scoring at the bottom).

The Feature Activity Log is used to display current Activities, and to add new ones.

The Feature Activity Log may be accessed in two ways:

• From the menu item in the Asset Register folder.
• From the Feature ‘Other’ button. If accessed from the Feature, the Activity Log will display all Activities currently logged against the currently displayed Feature.

Where the Activity Log is accessed from the Feature - ‘Other’ button; Site, Feature ID, and Plot Number are copied from the Feature and cannot be edited. otherwise the Site and Feature details must be entered or picked.

Activity Class: Select an Activity Class from the drop down list. The drop down list references the Activity Class lookup.

Status: Select a Status - Proposed, Actioned or Cancelled.

Description: An optional free text field. Text entered here will be displayed in the Prioritised Action Report.

Date: Enter a date, which can either reflect the logged date, or the date by which a proposed action should be actioned. The date will provide a filter option in the Prioritised Action Report, and appear in the report.

Budget Cost: Enter a cost for the Activity.

Notes: An optional free text field.

Fin Period: Select a Finance Period.

Logged: The User name and current date are entered and cannot be amended.

Batch Allocate Activities

You may assign activities to the features in the Allocate Smart Attributes or Allocate Condition Values, both of which are found in the Feature Batch Allocation folder.

The upper part of the form is used to define the parameters that will be set on the Feature. The fields under the grey line are used to define those Features which will have the specified parameters applied.
To create Activities:

Check the Activity checkbox on the right-hand side under the buttons to display the Feature Activity Log filter:

- **Activity Class:** Select an Activity Class from the drop down list. The drop down list references the Activity Class lookup.
- **Notes:** An optional free text field.
- **Date:** Enter a date, which can either reflect the logged date, or the date by which a proposed action should be actioned. The date will provide a filter option in the Prioritised Action Report, and appear in the report.
- **Fin Period:** You may select a Finance Period
- **Budget Cost:** Enter a cost for the Activity.
- **Status:** Select a Status - Proposed, Actioned or Cancelled.
Click on OK to return to the batch allocate filter. Run the batch allocation to make the changes specified in the batch allocation filter, and to create an Activity log for each of the features specified in the batch allocate filter.

**Risk Analysis Breakdown Report**

The Risk Analysis Breakdown Report shows total cost and weighted scores broken down based on Report Level.

All the report options give you a Feature Count which details how many features fall within the category being detailed.

![Image of Risk Analysis Breakdown Report Filter](image)

The top section of this filter determines what features you want included in this risk report.

The bottom section of this filter form specifies the following:

**Period Multiplier:** This uses simple probability theory to adjust the probability of failure. The analysis over multiple time periods using the following formula:

\[ \text{Probability over } T \text{ time periods} = 1 - (1 - p)^T \text{ where } p = \text{probability over one time period} \]

The reports adjust the costs and scores according to this new probability of failure.

**Report Level:**

The Risk Report Data can be broken down to one of the following levels:

- 'No Detail' - Total cost & score for each Risk Class/Feature Group.
- 'Consequence' - Total cost & score for each Consequence within each Risk Class/Feature Group.
- 'Failure Mode' - Total cost & score for each Failure Mode within each Risk Class/Feature Group.
- 'Feature' - Total cost & score for each Feature within each Risk Class/Feature Group.

With the Filter populated according to the Risk Report you require click on the OK button.

The Feature Risk Analysis Report results will display.

**Feature Risk Analysis Report**

The Feature Risk Analysis Report shows total cost and weighted scores for each feature.
This report has the Named Selection functionality so that you can save assets as a group for future risk mitigation activities/assets requiring investigative inspections, etc. if desired.

The top section of this filter determines what features you want included in this risk report. The bottom section of this filter form specifies the following:

**Cost From - To:** The Features with a Risk Cost between these two values will be included in this Risk Report. These cost ranges are used on the final calculation of cost (after the period multiplier has adjusted the probability of failure).

**Weighted Score From - To:** The Features with a Risk Rating (Weighted Score) between these two values will be included in this Risk Report. These score ranges are used on the final calculation of score (after the period multiplier has adjusted the probability of failure).

**Period Multiplier:** This uses simple probability theory to adjust the probability of failure. The analysis over multiple time periods using the following formula:

\[
[P \text{roportion over } T \text{ time periods} = 1 - (1 - p)^t \text{ where } p = \text{probability over one time period }]
\]

The reports adjust the costs and scores according to this new probability of failure.

**Type of Report:** The Report can be sorted by either of the following ways:

- 'Site' - Default
- 'Cost' - Descending
- 'Score' - Descending

With the Filter populated according to the Risk Report you require click on the OK button. The Feature Risk Analysis Report results will display.
Detailed Risk Analysis Report

The Detailed Risk Analysis Report details:

- The Severity Cost, Scores and Weightings for each Consequence
- The Projected Severity Cost and Weighted Scores for each Consequence factoring in the Features Probability of Failure.
- Each Features Total Risk Cost and/or Risk Rating for each feature.

This report has the Named Selection functionality so that you can save assets as a group for future risk mitigation activities/assets requiring investigative inspections, etc. if desired.

The top section of this filter determines what features you want included in this risk assessment report.

The bottom section of this filter form specifies the following:

- **Feature Group:** The Feature Group to include in this Risk Report
- **Risk Class Type:** This is automatically populated with the Risk Classification this Feature Group is assessed by (as defined in the Risk Classification Applicability topic)
- **Risk Class:** The Risk Classification Value to include in this Risk Report
- **Failure Mode:** The Failure Mode to include in this Risk Report
- **Consequence:** The Consequence to include in this Risk Report
- **Severity:** The Severity of the specified Consequence above you wish to include in this Risk Report
- **Period Multiplier:** This uses simple probability theory to adjust the probability of failure. The analysis over multiple time periods uses the following formula:
  
  \[
  \text{Probability over } T \text{ time periods} = 1 - (1 - p)^T \text{ where } p = \text{probability over one time period}
  \]

  The report adjusts the costs and scores according to this new probability of failure.

With the Filter populated according to the Risk Report you require click on the OK button.

The Detailed Risk Analysis Report results will display.
Risk Lookups

The Risk Lookups folder contains all of the lookups needed for configuring Risk Management. Many of the lookups are the same as available in the Feature Lookups folder.

Activity Class

(Activity Log module)

Activity Classes group Activities for reporting purposes (reporting is by Activity Class)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFE2</td>
<td>Essential work within 2 days</td>
</tr>
</tbody>
</table>

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

Consequence Type

The Failure of an Asset may result in many Consequences. These are high-level categories by which the effect of the failure is classified.

The Consequence Type library stores all the Consequence Types with their related Severities of Outcome

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV1</td>
<td>Environmental</td>
<td>5.0000</td>
</tr>
</tbody>
</table>

Code: (4) A code that uniquely identifies the Consequence Type.
Name: (30) A short description of the Consequence Type.
Weighting: (8, 4 d.p) This field is where you specify the weighting of this consequence relative to the others. These are used to calculate the Overall Risk Rating.
Severity of Outcomes

Each Consequence may have different Outcome Severities.

For example, the 'Environmental Impact' Consequence could vary in severity from 'Extreme Damage to the Environment' to 'Insignificant Effect'.

Severity of Outcome is opened from the Consequence Type form by clicking on the Detail button.

Consequence Name: This field is automatically populated with the selected Consequence Type.

Code: (4) A code that uniquely identifies the Severity of Outcome within this Consequence Type.

Name: (30) A short description of the Severity of Outcome.

Severity Score: (8, 4 d.p) The associated score of this Outcome Severity (used to determine the Risk Rating)

Severity Cost: (12, 2 d.p) The associated cost of this Outcome Severity (used to determine the Risk Cost)

Feature Group Risk Classes

The Feature Group Risk Classes lookup allows you to specify which Feature Group(s) are assessed for Risk using this Risk Classification.

Feature Group Column: The list of Feature Groups existing in Confirm

Risk Class Smart Attribute Column: The corresponding Risk Classification that the Feature Group will use for risk assessment, selected from the Smart Attribute lookup library.
**Note:** When you specify a Feature Group a Risk Classification, Confirm will assign this Smart Attribute to all Features of this Feature Group Type, where it currently doesn't exist, WITHOUT A PROMPT. This initial assignment will set the Risk Classification to the default of 'Not Applicable'.

**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 - 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
Smart Attributes

Risk Classifications are a way of grouping similar assets that are risk managed in the same way. The Feature Risk Classification of an Asset is determined from all of the attributes about that type of Asset that could affect the Consequences of Failure Outcomes.

For example Sewer Pipe Risk Classifications may be derived from the location classification (under building), footpath purpose/size (main interceptor/1200mm).

Each of these contributory factors are defined as Text Attributes, and used in combination in the Smart Attribute Type to derive values, or Risk Classifications.

Text Attributes are created in the Attribute Types Lookup.

- **Code:** Up to four alphanumeric characters.
- **Name:** Up to thirty characters.
- **Not Applicable Value:** This value will be used on any Feature which has this Type applied and has not yet been assigned a Value. This has a default of NA, the description may be changed.
- **Display Order:** Affects the order in which the Type appears in the Feature tab. 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.

Applying Dependants

(Smart Attribute module only)

Smart Attribute Values can be derived from the combination of Text Attributes. The Text attributes that will make up the Smart Value are known as 'Dependants' and are added on the Dependants tab of the Smart Attribute form:

![Dependants Table]

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL - Lamp Type</td>
<td>✔️</td>
</tr>
<tr>
<td>SL - Lamp Wattage</td>
<td>✔️</td>
</tr>
<tr>
<td>SL - Operating Regime</td>
<td>✔️</td>
</tr>
<tr>
<td>Measurement</td>
<td>✔️</td>
</tr>
</tbody>
</table>
Smart Type: Entered from the Type tab. Not editable.

Attribute 1 - 5: Select the required Attributes from the drop down list in each field. The drop down lists reference the Attribute Type Lookup. You may enter up to 5 Attributes.

Measurement: Not applicable to Risk Assessment.

Adding Smart Attribute Values

Click on the ‘Value’ button to display the Smart Attribute Value form:

- **Code:** Up to 10 alphanumeric characters
- **Description:** Up to 30 characters.
- **Notes:** A free text field

**Measurement (Wattage):**

This field will only be present if: you have the Smart Attribute module, and you have selected a Measurement Type on the Dependents tab of the Smart Attribute form.

If you have entered a Measurement Type on the Dependents tab, then that Measurement Type is used here to title this field. You can then enter a measurement which will be associated with this Value, and entered on any Feature which acquires this Value.

**Short Code:** You may enter a Short Code (up to four characters) in this field, which can be used (with the Smart Attribute module) to set the Feature Type for a Feature that acquires this Smart Value.
Setting Depend Values

Having defined the dependants, and set values you must now say which combinations of dependants (Text Attributes) will generate which Smart Values. This is done in a grid that allows user to specify a combinations of attributes and corresponding Smart Value.

To set up the grid, click on the 'Depend' button in the Smart Attribute form, the Smart Depend Value form is displayed:

The lower part of screen allows user to select attribute combinations that will have a corresponding Smart Value.

The drop-downs contain individual text attribute values that can be selected.

Use the Add button to add another combination of text attribute values.

The Smart Values can be entered with each row or once all the required rows of text attribute combination have been added. Use the Down Arrow key to move the highlight to the next row, and enter a Smart Value for that combination.

The Pick list against Smart Value references the Smart Value library.

Click Save to save the attribute combinations with Smart Value to the database. Note that only those rows from the grid will be saved which have a Smart Values against them and others will be lost on screen close. Save will also validate if any rows are duplicate and prompt for correcting it.

Delete button can be used to Delete a row from the grid.

**Note:** Features will not acquire Smart Values until the Allocate Smart Attribute utility has been run and saved.

Allocate Smart Attributes

(Extended Attributes module)

The Allocate Smart Attribute tool has several functions within Confirm:

- To directly allocate a particular Smart Type and Value as set in the filter.
• To calculate a Smart Value for the given Smart Type, based on the information in the Smart Attributes Lookups
• To enable the entry of a Feature Type for the selected Features, based on the Smart Value or the text attributes from which that value is derived.

The filter can be used at any of these levels of functionality.

**Note:** The functionality to derive Smart values from Text attributes, and to derive Feature Types from Smart Values, is only available with the Smart Attributes module.

---

**To Assign and calculate Smart Attribute values**

Enter the Smart Type in the Smart Type field. The drop down list references the Smart Attributes lookups.

Use the centre section of the form (between the grey lines) to define the Features that will take on this Smart Type.

In the lower portion of the filter (under the grey line):

- **Derive Values:** Make sure the box is checked.
- **Default Value:** Enter the Value to be used if the system cannot calculate a value - usually ‘NA’.
- **Derive Feature Type:** Leave blank.
- **Update measure:** Not applicable to Risk Assessment.
- **Show Unchanged:** Check this to show calculated Values that are the same as values currently assigned to the Features. Otherwise, only Features whose values have changed will be displayed in the preview.

Click OK to display a preview of the Features and values that will be assigned as a result of the calculation. Save the preview to make the allocation.
Risk Management Reports

The Risk Management Reports folder contains a List Report for each Risk Management Lookup Library and Feature Activity Reports.

Open the desired List from the Explorer.

The Lists are:

Consequence Type List
This report lists all the Consequence Types with their associated Weighting defined in the Consequence Type Library.

Consequence Severity List
This report lists all the Severity of Outcomes with their associated Cost and Score for each Consequence Type. Consequence Weighting is included.

Consequence of Failure List
This report lists how the Consequence of Failure Grid was populated.
It lists for each Failure Mode in each Risk Class for each Feature Group the Severity of Outcome of each Consequence with the associated Weightings, Costs, Scores and Totals.

Activity Class List
This report lists all the Activity Classes defined in the Activity Classes Library.

Feature Activity List
This report lists features with their corresponding activity, status, description and note details.

Feature Activity Cost List
This report lists features with their corresponding activity, status, cost and finance period details.

Risk Entity History
(Risk Management module)

Entity History is used to track changes made to the particular Entities where it has been enabled in Entity History Settings. It can be used to Report on the changes made, who made them, and when. Each area of Confirm that records Entity History will have Settings particular to that Entity.
## Entity History Report

### Key Codes

Entity History can be recorded for the following:

<table>
<thead>
<tr>
<th>Entity</th>
<th>Key</th>
<th>Module Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature</td>
<td>Site Code / Plot Number</td>
<td>0115 – Audit Trails</td>
</tr>
<tr>
<td>Feature Attributes</td>
<td>Site Code / Plot Number / Type Code</td>
<td>0115 – Audit Trails</td>
</tr>
<tr>
<td>Feature Measurements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature Dates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature Smart Attributes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory</td>
<td>Site Code / Plot Number / Inv Item Id</td>
<td>0115 – Audit Trails</td>
</tr>
<tr>
<td>Inventory Attributes</td>
<td>Site Code / Plot Number / Inv Item Id / Type Code</td>
<td>0115 – Audit Trails</td>
</tr>
<tr>
<td>Enquiry Customer Details</td>
<td>Customer Number</td>
<td>1200 – Customer Services</td>
</tr>
<tr>
<td>Enquiry Contact Details</td>
<td>Enquiry Number</td>
<td>1200 – Customer Services</td>
</tr>
<tr>
<td>Defect</td>
<td>Defect Number</td>
<td>0500 – Condition Survey</td>
</tr>
<tr>
<td>Job</td>
<td>Job Number</td>
<td>0700 – Asset Maintenance</td>
</tr>
<tr>
<td>Job Attribute Type</td>
<td>Job Number / Type Code</td>
<td>0715 – Job Attributes</td>
</tr>
<tr>
<td>Job Status</td>
<td>Status Code</td>
<td>0700 – Asset Maintenance</td>
</tr>
<tr>
<td>Tender Bids</td>
<td>Tender Number / Contractor Code</td>
<td>0945 – Non-Term Bidding</td>
</tr>
<tr>
<td>Standing List Prerequisite</td>
<td>Work Band Key / Credential Code</td>
<td>1810 – Contractor Standing Lists</td>
</tr>
<tr>
<td>Listed Contractor</td>
<td>Work Band Key / Contractor Code</td>
<td>1810 – Contractor Standing Lists</td>
</tr>
<tr>
<td>Contractor Credentials</td>
<td>Contractor Code / Credential Code</td>
<td>1810 – Contractor Standing Lists</td>
</tr>
<tr>
<td>Consequence Type</td>
<td>Consequence Type Code</td>
<td>2300 – Risk Management</td>
</tr>
<tr>
<td>Consequence Severity</td>
<td>Consequence Type / Severity</td>
<td>2300 – Risk Management</td>
</tr>
<tr>
<td>Consequence of Failure (Matrix)</td>
<td>Feature Group / Risk Type / Risk Class / Failure Mode / Consequence Type / Severity</td>
<td>2300 – Risk Management</td>
</tr>
<tr>
<td>Feature Activity</td>
<td>Site Code / Plot Number / Activity Number</td>
<td>2300 – Risk Management</td>
</tr>
<tr>
<td>Statement Item</td>
<td>Organise Code / Statement Number / Statement Item Number</td>
<td>3400 - Street Works Register</td>
</tr>
<tr>
<td>Import Transformation (includes Contractor Import and Export Transformation)</td>
<td>Transformation Key</td>
<td>None</td>
</tr>
</tbody>
</table>
**Asset Register**

**Note:** Plot Number is stored without trailing zeroes. For example, Entity History for a Feature with a Plot Number of 100.00 is stored with a Key value in the form 47701370/100 rather than 47701370/100.00.

**Note:** Entity History will only record the first 500 characters of text fields, such as Feature Location, Feature Description, Defect Notes, Attribute Notes etc.

Click on the OK button to retrieve the results.

The Entity History Report will open and display the results that met the filter criteria. Displaying all Historical Log entries associated with Entity Date along with any changes made.

**Note:** For Enquiry, only ‘Updates’ to an existing Enquiry are recorded in Entity History.

---

**Entity History Filter**

<table>
<thead>
<tr>
<th>Changed By</th>
<th>Change Date From</th>
<th>Entity Type</th>
<th>Column Changed</th>
<th>Key Like</th>
<th>Show Inserts</th>
<th>Show Updates</th>
<th>Show Deletes</th>
</tr>
</thead>
</table>

**Changed By:** Select a User from the User library. *System Administration\Security\User Security*

**Change Date From** Select the date range to report on.

**To:**

**Entity Type:** Enter the section of data to report on. The drop down list shows the data sections as defined in the Entity History System Settings.

**Column Changed:** A list of fields will be displayed which will reflect the selection made in the Entity Type field. Select from the list.

**Key Like:** A free Text field in which key codes may be entered. Each code is separated by a slash. See the ‘Key Codes’ section for example codes.

**Show Inserts:** Check this to include newly created records in the report.

**Show Updates:** Check this to include changes to existing records.

**Show Deletes:** Check this to include records that have been deleted from the database.

---

**Entity History Cleardown**

The Entity History Cleardown will delete Entity History records based on the parameters set in the filter.
Asset Register

Entity History Cleardown Filter

- **Changed By**: Restricts the Cleardown utility to clear changes made by the selected User only.
- **Change Date From** to **Change Date To**: Restricts the removal of Entity History records to only those created between the dates set. These are optional and if not provided then no date restriction will be applied.
- **Entity Type**: Restricts the Cleardown utility to only particular Entity Types. The drop-down list shows the entire list of Entities that Entity History can be recorded for.

The Preview Report will display the Entity History records retrieved based on the filter criteria, and all of these displayed records will be removed from Confirm. The records will not be removed until the ‘Save’ button is clicked, and upon completion the Report Title will change from “Entity History Cleardown Report” to “Entity History Cleardown – Result”.

**Risk Entity History Settings**

The Risk Entity History Settings define the Risk data for which changes are tracked and recorded.

- **Consequence Type**: To record changes to the Consequence Type lookup.
- **Consequence Severity**: To record changes to the Consequence Severity lookup.
- **Consequence of Failure**: To record changes to the Consequence of Failure Grid.
- **Feature Activity**: To record changes to Feature Activity Log.
Feature Batch Allocation

The Batch Allocation tools allow work to be carried out across a batch of Features. Features can be batch created, batch renumbered, and batch copied.

Values can be batch assigned to Feature parameters, such as Feature Types, Attribute Types, and Conditions, to insert a particular Value where the filter parameters are met.

Values can also be batch assigned to parameters inherited from Site, such as Cost Code, Customer, and Area. In this case the user can elect to update the Site as well as the Features.

The Smart Attribute batch allocation tool has the additional function of calculating Smart Attribute Values based on the combination of Text Attributes defined in the Smart Attribute lookup (Smart Attribute module only).

Feature Resequence

The Feature Resequence allows Features to be renumbered, either on the same Site, or to a different Site.

Resequencing will keep the Features intact with all their history of work (as opposed to copying which merely creates a copy of the existing Feature, and leaves the work history with the original Feature)

**Note:** To update a single Feature, the **Resequence** on page 27 option on the Feature screen can be used.

To Resequence:

In the ‘Enter Feature’ section of the form, pick the Site and Feature to be resequenced.

In the ‘New Site’ field, pick the new Site

**Note:** The pick list displays the current Site list - if a new Site is required it must first be created in the Site form
Enter a new plot number

**Note:** Plot numbers must be unique within a Site, you cannot therefore enter here a plot number that is already being used on the Site.

Click on 'New' to add the Feature to this list above, and clear the "enter Feature' section for the entry of the next Feature to be resequenced.

When the list is complete, click on 'Update' to carry out the resequencing.

**Note:** Features that have been downloaded to a mobile device cannot be resequenced. If the system detects such a Feature, a warning will be issued, and the update of that Feature prevented.

**Batch button:**
The batch button displays the Feature Resequence filter, which allows a batch of Features to be moved to a new Site. The top part of the filter allows the selection of the Features.

Enter the new Site in the New Site field at the bottom of the filter.

**Note:** The batch button does not permit the renumbering of Features. Features are moved to the new Site with their present plot numbers.

**Feature Creation**
The Feature creation tool allows Features to be batch created. The Feature creation tool assumes the same Feature Type, with the same Plot Number and Primary Measurement, across a range of Sites.

The top part of the filter (above the grey line) defines the new Feature.

**Plot Number:** The new Feature will be given this plot number in all the Sites in which it is created. There must therefore not be a Feature already carrying this plot number on any of the proposed Sites.

**Feature Type:** From the Feature Type Lookup

**Feature Quantity:** A quantity for the Primary Measurement. (Primary measurement is defined in the Feature Group to which the selected Feature Type belongs.)

The lower part of the filter (below the grey line) defines the Sites on which this Feature will be created.

Click on OK to display a preview list of Sites and new Features. Save the Preview to create the proposed Features.

**Feature Copy Batch**
The Feature Copy tool allows batch copies to be made from one Site to another.

The top part of the filter (above the grey line) defines the current and new Sites for the selected Features.

The lower part of the form (below the grey line) further defines the features to be copied, within the above-specified Site.

**Note:**
- Features will be copied with their current plot numbers. These numbers must therefore be available in the new Site. Features can be resequenced first if there is a conflict of numbering.
- Only Features whose Feature Group's Class is set as 'Discrete Asset' will be retrieved by the filter.

Click on OK to display a preview list of new (copied) Features. Save the Preview to create the proposed Features.
Allocate Feature Additional Data

The Allocate Feature Additional Data utility allows a selection of Features to be updated. The utility can be used to update any of the following fields:

- Cost Code
- Classification
- Customer
- Contract Area
- Area
- Ward

The top part of the form (above the grey line) allows the selection of a new value for any or all of the six fields mentioned above. Only those fields with a new value entered will be updated.

Tick ‘Update Sites’ to also change the values on the Sites which contain the Features being updated.

The lower portion of the form defines the Features that will take on the new values.

Click on OK to display a preview list of the Features that will take on the new values. Save the Preview to effect the change.

Allocate Overriding cost codes

An overriding Cost Code allows for a different Cost Code (from the one applied to the Feature) to be applied if certain work is carried out. The types of work (SOR Items) which require an overriding cost code are defined by Schedule (See Asset Maintenance - SOR Schedules for details on how to assign SORs to Schedules)

When work is raised on the Feature, and SORs applied to define the work, the Feature Cost Code will be replaced by the overriding cost code, if the SOR is in the Schedule specified.
The top part of the form (above the lower grey line) is used to define the Features that will take on the overriding Cost Code.

The lower portion of the form (below the lower grey line) sets the Schedule (from the Schedule lookup)

**Asset Maintenance\SOR Item Lookups**

The overriding Cost code (from the Cost Code lookup)

**Site Register\Site Lookups\Operational Lookups**

'Existing Cost Code' - Choose whether to 'Ignore' (i.e. add this to an existing overriding Cost Code on the Feature as a second overriding Cost Code); or to 'Overwrite' (i.e. replace an existing Overriding Cost code on the Feature).

Click on OK to display a preview list of the Features that will take on the overriding Cost code. Save the Preview to effect the change.

**Allocate Feature Type**

The top part of the form (above the grey line) has a field for the entry of the new Feature Type.

The pick list references the Feature Type lookup. New Feature Types must therefore have been entered in the lookup before they can be entered here.

The lower portion of the form defines the Features that will take on the new Feature Type.

Click on OK to display a preview list of the Features that will take on the new Feature Type. Save the Preview to effect the change.

**Allocate Smart Attributes**

(Extended Attributes module)

The Allocate Smart Attribute tool has several functions within Confirm:

- To directly allocate a particular Smart Type and Value as set in the filter.
- To calculate a Smart Value for the given Smart Type, based on the information in the Smart Attributes Lookups
- To enable the entry of a Feature Type for the selected Features, based on the Smart Value or the text attributes from which that value is derived.

The filter can be used at any of these levels of functionality.

**Note:** The functionality to derive Smart values from Text attributes, and to derive Feature Types from Smart Values, is only available with the Smart Attributes module.
To Assign a Value to a Smart Attribute

Enter the Smart Type in the Smart Type field. The drop down list references the Smart Attributes lookups.

Use the centre section of the form (between the grey lines) to define the Features that will take on this Smart Type.

Use the 'Default Value' field, in the lower portion of the form (under the grey line) to enter the Smart Value for this Type and these Features. The pick list references the Smart Attribute lookups.

Since this is a straightforward allocation of a given value, make sure all the check boxes are unchecked, and the Update Measure field has 'Never' selected from the drop down menu.

Click OK to display a preview of the Features that will take on this Type and value. Save the preview to make the allocation.

To Calculate a Value for a Smart Attribute

A Smart value can be calculated based on the combination of two or more Text Attributes. A Measurement Type can also be set for the Smart Type, and each Value within that Type can then have a quantity assigned to it, which will be assigned to Features deriving that Value. The way in which these values are calculated, and the text attributes that will be used to make them up, are set up in the Smart Attribute lookup.

Enter the Smart Type in the Smart Type field. The drop down list references the Smart Attributes lookups.

Use the centre section of the form (between the grey lines) to define the Features that will take on this Smart Type.

In the lower portion of the filter (under the grey line):

- Derive Values: Make sure the box is checked

- Default Value: Enter the Value to be used if the system cannot calculate a value - usually 'NA'
Derive Feature Type: Leave blank - see “To assign a Feature Type according to the Smart Value” below

Update measure: The measure update option will update the Feature Primary measure in line with the measurement entered against the Value in the Smart Attribute Lookup (if one is entered). The drop down list offers the choice of updating:

- 'Always' - the Feature measurement will be updated in line with the Value assigned to the Smart Attribute
- 'If value changed' - the Feature measurement will be updated only if the Smart value changes.
- 'If null or Zero' - the Feature Measurement will only be updated if it is currently zero.
- 'Never' - the Feature measurement will not be updated.

Show Unchanged: Check this to show calculated Values that are the same as values currently assigned to the Features. Otherwise, only Features whose values have changed will be displayed in the preview.

Click OK to display a preview of the Features and values that will be assigned as a result of the calculation. Save the preview to make the allocation.

To assign a Feature Type according to the Smart Value

The Smart Attribute can be used to generate a Feature Type for the Feature. Each Value within a Smart Type can have a corresponding Feature Type set. When the Smart Value is set for the Feature (either directly, or by calculation) the Feature takes on the appropriate Feature Type. This link between Feature Types and Smart Attributes is set in the Smart attributes Lookup. See “” on page 83

Enter the Smart Type in the Smart Type field. The drop down list references the Smart Attributes lookups.

Use the centre section of the form (between the grey lines) to define the Features that will take on this Smart Type.

In the lower portion of the filter (under the grey line):

- Derive Values: Check to calculate values, leave unchecked to enter values.
- Default Value: If 'Derive values' is checked, enter the Value to be used if the system cannot calculate a value - usually 'NA'
  
  If 'Derive Values' is not checked, enter the Value you wish to assign to the selected Features.

- Derive Feature Type: Check this to enter Feature Types against the Features according to Smart Value.

- Update measure: The measure update option will update the Feature Primary measure in line with the measurement entered against the Value in the Smart Attribute Lookup (if one is entered). The drop down list offers the choice of updating:
  
  - 'Always' - the Feature measurement will be updated in line with the Value assigned to the Smart Attribute.
'If value changed' - the Feature measurement will be updated only if the Smart value changes.

'If null or Zero' - the Feature Measurement will only be updated if it is currently zero.

'Never' - the Feature measurement will not be updated.

Show Unchanged: Check this to show calculated Values that are the same as values currently assigned to the Features. Otherwise, only Features whose values have changed will be displayed in the preview.

Click OK to display a preview of the Features, values, and Feature Types that will be assigned as a result of the filter entries. Save the preview to make the allocation.

**Allocate Attribute Values**

The allocate Attributes tool allows the value within an Attribute Type to be changed. Only Features already assigned this Attribute Type can be included.

Use the top part of the filter (above the grey line) to define the Attribute Type, the old (present) value, and the new value.

Attribute Type and Value fields reference the Attribute Type lookup.

Use the lower part of the filter (below the grey line) to restrict the Features that will have the values changed.

Click OK to run the utility. A Preview will be displayed, listing the Assets retrieved along with the old and new Attribute Value. Upon pressing Save, the Assets will be updated.

**Note:** This utility will check that Mandatory Attributes are not being updated to blank or ‘Not Applicable’ values.
Allocate Condition Values

The Feature Condition batch allocate tool allows a Condition Grade to be set for an existing Observation Type (Observation Types must be linked to the Features through the Feature Group).

Use the top part of the form (above the grey line) to select the Observation type, and the Grade to assign. The Drop down lists reference the Observation type, and the Observation Parameter lookups.

Type of Change: The following choices are available form the drop down list:

'Set Grade' - The grade dropdown menu displays the Grades associated with the selected Observation Type Parameter. Selecting one of these Grades will update the Score field with the value of the Grade.

'Set Score' - The Grade field will be disabled and Score enabled. By entering an applicable value in the Score, the corresponding Grade will be set.

'Add' - Grade will be disabled and cleared. The Score will be added to the Features current value. The Score will not change the Grade value on the filter.

'Subtract' - Grade will be disabled and cleared. The Score will be subtracted from the Features current value. The Score will not change the Grade value on the filter.

Use the lower portion of the form (below the grey line) to limit the Features that will take on this change in Condition grade.

Batch Populate Failure Matrix

(Performance Monitoring module)

The Failure Matrix specifies the correlation between Feature Groups, Site Classification, and the Failure to be applied if an 'unacceptable' Condition Grade is applied to Feature during a Condition Survey on that Feature.

The Failure Matrix is found on the 'Other' button of the Feature Group lookup form, and may be completed individually for each Feature Group.

The Batch Populate Failure Matrix utility allows several Failure Matrices to be populated at once according to the parameters specified in the filter:
The top part of the form defines the parameters that will be searched for to identify those matrices to be updated, and includes Feature Group and Site Classification (Network priority) and well as existing Failure Types and Follow Ups.

The lower part of the form is for specifying the changes to be applied. All available fields must be populated.

**Note:** Where the selected Failure Type is not flagged for re-inspection, the Follow up field will no be available, and, if such a Failure Type is selected in the First Inspection field, the Re-inspection fields will also remain unavailable.

**End Date Features**

This utility will apply or remove End Dates on features that meet specified criteria.

The Action box provide two options

**End Date**

This option will End Date features that are live and whose start date is earlier than the entered End Date.

The End Date Features filter offers a range of filter options below the grey line which specifies criteria to restrict the Features that will be End Dated. When the utility is run, a list of all Features selected will be displayed, with notation indicating whether or not the feature can be updated. Features that cannot be updated will be displayed first in the list, with the reason why the update cannot take place in the 'Status' column. It is not possible to update Features which have any Inventory Items with a Start Date later than the entered End Date.

It is not possible to create new versions of Features with this utility.

Click on the 'Save' button in the preview window to update any records with 'OK' appearing in the 'Status' column. If there are no records marked 'OK' then the 'Save' button will be disabled. If there are one or more Features on Inspection Route(s) then the User is provided with option to delete them from those route(s) or leave them as is. An option to not save any changes is also provided on the same warning message.

**Undo End Date**

The Undo End Date option is similar to the End Date option except it will remove End Dates on Dead Features meeting the criteria. It is not possible to undo the End Date on a Feature where a later version of that Feature exists. The End Date field is not applicable to this option and it will be disabled.

The Undo End Date Features filter offers a range of filter options below the grey line which specifies criteria to restrict the Features that will have their End Dates removed. When the utility is run, a list of all Features selected will be displayed, with notation indicating whether or not the feature can be updated. Features that cannot be updated will be displayed first in the list, with the reason why the update cannot take place in the 'Status' column. If the 'Unique Feature Ids' setting is checked on the Feature System Settings then a Feature cannot be updated if another Feature exists with the same Feature Id.

Click on the 'Save' button in the preview window to update any records with 'OK' appearing in the 'Status' column. If there are not records marked 'OK' then the 'Save' button will be disabled.

**Batch Validate Features**

(Asset Validation module)

This utility will validate Features against criteria defined in a Data Source.
The Batch Validate Features filter offers a range of filter options from which to select the Features to be validated. The Data Source to be used for validation is determined from the Feature Group, and only Features where a Validation Data Source has been specified will be included.

The utility will run the appropriate validation checks for each of the selected Features and display the results. For each Feature there could be error messages, warning messages or a combination of the two.

For Features that have passed validation, i.e. those with no error messages, a successful Validation Status will be shown, along with any associated warning messages. For those that have failed validation the error and warning messages returned by the Validation Data Source will be shown.

Click on the ‘Save' button in the preview window to update the ‘Validated Date’ and ‘Validated By’ fields on Features that have passed validation. ‘Save’ will also clear out past validation information of any Feature that failed validation in the current run.

**Note:** This functionality can also be invoked for a single Feature via the ‘Action’ button on the Feature screen.

For details on configuring the Data Source to be used see Validation Data Sources

### Delete Features

This utility will delete Features that have no Inventory, Hierarchy, Jobs, Inspections or Enquiries on them, according to the filter criteria. It will delete corresponding records in tables where it is used as a lookup, such as Regime History.

The Delete Features filter offers a range of filter options from which to select the Features to be deleted. When the utility is run, a list of all Features selected will be displayed, with notation indicating whether or not the Feature can be deleted (those Features that cannot be deleted will be displayed first in the list, with the reason why the deletion cannot take place in the ‘Can be deleted?’ column).

Click on the ‘Delete’ button in the preview window to delete records with ‘YES' entered in the ‘Can be deleted?’ column.

### Aggregate Inventory Measurements

This utility will aggregate the Measurements held against Inventory Items and apply a total to the Feature.

The aggregation is of the measurements held in the 'Measurement' field(s) of the specified Inventory item. The Inventory Group to which the item belongs must have a Primary Measurement Type specified, which is the same as a Measurement Type applied to the Feature.

The Inventory Group Primary Measurement is applied in the [Inventory Feature Group form](#).

Feature Measurement Types are applied through the [Feature Group](#).

If Asset Valuation is enabled the utility will query the Inventory, add up the quantities and enter this value in the Quantity field on the Valuation tab if it is the Valuation measurement that is being updated. It will also update the Replace Value and Residual Value for each Feature.

Use the upper part of the form to define the Feature(s) that will have measurements aggregated.

Use the lower portion of the form to specify the Inventory Item(s) which will contribute to the aggregation.

Click on Ok to view the preview. The Aggregation will total Inventory Primary Measurements, and apply the total to the same Measurement Type in the Feature. So if Inventory Items all carry the Primary Measure: 'Length', then the total of all these measures will be applied to the Measurement Type 'Length' on the Feature.

Click on ‘Save' in the preview window to save the aggregations.
Asset Register

Feature Attribute Dependent Update

The Feature Attribute Update utility will update Feature Attributes in line with the Attribute dependencies set up in the Attribute Type Lookup.

The utility will not add Attribute Types to Features, nor carry out any updates other than those dictated by the Attribute Type dependencies set up in the Attribute Type Lookup.

Use the top part of the filter to restrict the selection of Features for update. You may leave the top section blank to update all Features.

The bottom part of the filter screen is for the selection of Attribute Type Values to be updated.

- **Attribute Type:** You may select an Attribute from the drop down list. Only those Attribute Types with a Dependent Attribute Type can be updated. Hence, only these will be seen in the drop down list.
- **Attribute Value:** You may specify a value to restrict the update to the attributes currently holding that value.
- **Depend On Type:** This will be entered automatically by reference to the Attribute Type if you have entered one in the Attribute Type field. Otherwise you may pick an Attribute Type from the drop down list to restrict the update to the attributes dependent on that attribute type.
- **Depend On Value:** You may specify a value to restrict the update to attributes dependent on the above attribute type, which have that value.
- **Include:** Select from:
  - 'All Attribute Values' - To update values without reference to the current value.
  - 'Disallowed Attribute Values' - To update only those values that are disallowed according to the Dependency rules set up for the Attribute Types.
  - 'Allowed with Warning only' - To update only those values that are flagged to give a warning in the Dependency rules set up for the Attribute Types.
  - 'Disallowed and Allowed with Warning' - To update all values that are disallowed or flagged to give a warning in the Dependency rules set up for the Attribute Types.

Click on OK to run the utility and display the preview.

Inventory Attribute Dependent Update

The Inventory Attribute Update utility will update Inventory Attributes in line with the Attribute dependencies set up in the Attribute Type Lookup.

The utility will not add Attribute Types to Inventory Items, nor carry out any updates other than those dictated by the Attribute Type dependencies set up in the Attribute Type Lookup.

Use the top part of the filter to restrict the selection of Inventory Items for update. You may leave the top section blank to update all Inventory Items.

The bottom part of the filter screen is for the selection of Attribute Type Values to be updated.

- **Attribute Type:** You may select an Attribute from the drop down list. Only those Attribute Types with a Dependent Attribute Type can be updated. Hence, only these will be seen in the drop down list.
- **Attribute Value:** You may specify a value to restrict the update to the attributes currently holding that value.
Depend On Type:  This will be entered automatically by reference to the Attribute Type if you have entered on in the Attribute Type field. Otherwise you may pick an Attribute Type from the drop down list to restrict the update to the attributes dependent on that attribute type.

Depend On Value:  You may specify a value to restrict the update to attributes dependent on the above attribute type, which have that value.

Include:  Select from:

'All Attribute Values' - To update values without reference to the current value.

'Disallowed Attribute Values' - To update only those values that are disallowed according to the Dependency rules set up for the Attribute Types.

'Allowed with Warning only' - To update only those values that are flagged to give a warning in the Dependency rules set up for the Attribute Types.

'Disallowed and Allowed with Warning' - to update all values that are disallowed or flagged to give a warning in the Dependency rules set up for the Attribute Types.

Click on OK to run the utility and display the preview.
Feature Reports

Feature reports will draw on information in the Asset Register in various ways. The 'Feature by ' reports will produce Feature lists grouped by the selected parameter. So a Feature by Customer report will list all the features selected in the filter, grouped by Customer.

Features with no Regimes, and Features with inappropriate regimes will draw on the information about Regimes held against the Feature (and viewed by clicking on the Other button, and selecting 'Regimes ' from the menu).

The remaining reports will be available with the relevant modules, and will produce reports calling on that specific information.

Features by

The 'Feature by ' reports will produce Feature lists grouped by the selected parameter.

A Feature by Customer report, for instance, will list all the features selected in the filter, grouped by Customer.

The way in which the Features are shown for each Customer (Cost Code, Area, Contact Area or Measurement) will depend on the level of Detail selected in the 'Report Level' field in the report filter:

'Detail' - lists the selected Features, alphabetically by Site, and in plot number order for each Site. Only the Primary Measurement will be shown.

'Feature Type Order' - lists the selected Features, alphabetically by Site, and alphabetically by Feature Type for each Site. All the Measurement Types associated with the Features are shown.

'Site summary' - lists the Sites alphabetically, and summarises the Features within each site as Feature Types. All the Measurement Types associated with the Features are shown, with the total measurement for all the Feature of the same Type within the Site.

'Feature Type Summary' - summarises the Feature types, with all the available Measurement Types summarised.

Features with no Regimes

This report lists all the selected Features that have no allocated Regime.

Features with Inappropriate Regimes

This report will detail Features that have been allocated 'inappropriate' regimes, and Feature that should have a Regime and do not. This is judged by checking the Regime applicability against the Feature Type.

An 'appropriate' allocation is one in which a Feature carries only the Regimes which are applicable to the Feature Type.

Other Regimes are described as:

'Additional Regime' - where a Regime that is not applicable to the Feature type has been applied to the Feature.

'Missing Regime' - where a feature does not a have a regime which is applicable.

If the filter returns 'No Records Found', then all the Features have 'appropriate' Regimes.
Feature Hierarchy

Lists the selected Features with details of the Hierarchy level that has been applied. The filter allows for the level to be selected so that all Features at a particular Hierarchy level can be reported on.

Overall Feature Condition

This report depends on a score having been applied to Observation parameter, thus providing a total score for Feature based on the Observation Types they carry, the Grades assigned to those Observation Types, and the Weighting for the Feature Group.

The report lists the selected Features with their overall score (the total score of all the Observation Types for that Feature). The report can be a summary of the scores (the report level ‘Summary’ is the default), or each Observation Type listed and the totalled (when the Report level ‘Detailed’ is selected). The report filter allows for a range of Scores to be selected.

Feature all Attributes list

Lists all the selected Features displaying all the Text Attributes and notes that have been assigned to them.

**Note:** The Feature Group Attribute Type must have the ‘Show on Works Order’ box checked, for each Feature Group you wish to report on. See Feature Group - Attributes tab on page 106

Prioritised Activity Report

(Asset Register - Activity Log)

Will report on the Condition and Failure ratings applied to Features, and the Activities logged against Features in the Activity Log Module. The report is prioritised by either Failure or Condition Rating (according to the filter selection) and the budgets for each proposed Activity are given. The final column of the report shows the budgets accruing down the list.

Elapsed Asset Report

(Asset Valuation module)

The Elapsed Asset report will display a list of Assets that have elapsed, that is, passed their ‘Active To’ date, after the date entered as the Calculation date.

The report may be limited by any of the filter options given, or run with the filter blank (other than the Calculation Date) to report on all assets that have elapsed after the Calculation Date.

Asset Valuation Report

(Asset Valuation module)

The Asset Valuation report will establish the Valuation Log entry that is valid at the Calculation Date (i.e. the most recent prior to that date). It will then provide details on the current replacement value, the depreciated replacement value (Current Value), as well as the depreciation to date for those assets defined in the filter criteria.

Valuation Log Movement Report

(Asset Valuation module)

The Valuation Log Movement report provides information on the changes in the value of assets, for whatever reason, such as rehabilitation, acquisitions and disposal.
For each change, the Replacement Value, Residual Value, and Expend/Income Value (Actual Cost) will be shown for Previous and Current Valuations. A Profit/Loss column is derived from the difference between the Previous and Current log values. The Valuation Reason, and Active To dates are also shown. Each line shows the Depreciation since the previous Log (or since the start of the reporting period for the first Log shown). An extra line appears for each Feature showing the Depreciation from the last Log to the end of the reporting period.

The report may be limited by any of the filter options given, or run with the filter blank to report on all assets (although not advised).

**Note:** Specifying a Valuation Reason on the filter restricts the report to show all Assets with a Valuation Log of that Reason within the date range. It does not restrict which Valuation Logs are displayed for those Features, as that would give a misleading picture of the changes to a Feature where there were other Valuation Logs within the date range.

**Asset Depreciation Report**

(Asset Valuation module)

The Asset Depreciation List will show each Asset at the Hierarchy levels selected in the filter, giving current values and depreciated values. Values are shown as: ‘Basic’ - the value of the Asset shown, and 'Component' - the value of any components (assets lower in the hierarchy which are 'within' this asset, but not included in the range of hierarchies selected in the filter).

**Unlinked Inventory Item List**

(Inventory module)

This report will display all Inventory Items that could be linked to Features, but are not.

This will be Inventory Items of an Inventory Type for which the 'Linked Feature' field has been set to 'Optional'. This provides fields against an Inventory Item in a Feature for specifying the linked Feature. This report will list all Inventory Items in which those fields are blank.

**Feature Attribute Dependency Exceptions**

**Feature & Inventory Attribute Dependency Exceptions**

These reports will display Feature / Inventory attributes that are disallowed according to the dependant Attribute Type definition.

The report filter will allow selection of Features and Attribute Types, and allow an 'Include' level to be set:

'Disallowed Attribute Values' - To show those values that are disallowed in the Dependency rules set up for the Attribute Types.

'Allowed with Warning only' - To show those values that are flagged to give a warning in the Dependency rules set up for the Attribute Types.

'Disallowed and Allowed with Warning' - To show values that are disallowed or flagged to give a warning in the Dependency rules set up for the Attribute Types.

**Traffic Count Data Report**

(Traffic Count Data module)
The Traffic Count Data Report will show Traffic Count Surveys and their related Count Data. The Report will also display Aggregated Time Slots if the Traffic Count Surveys have a Survey Type with an Aggregate Time Slot Level specified against it.

If the 'Show Attribute Type Breakdown' tick box is ticked then the Report will only show Traffic Count Surveys which have a Survey Type with an Attribute Type specified against it. Otherwise the Report will only show Traffic Count Surveys which have a Survey Type without an Attribute Type specified against it.

The Start Date and End Date on the Report filter will only display the Count Data for Traffic Count Surveys which overlaps those dates.

In order for the Report to display Combined Count Data it relies upon the Asset Id of the Features it finds having a '/'. The Asset Id is then split in the following method:

- Site Number - The part of the Asset Id before the '/'.
- Channel - The part of the Asset Id after the '/'.

If the Report finds Features with Asset Ids without a '/' then these will not be included in the Combined Count Data calculations, the Site Number field will display the whole Asset Id of the Feature and the Channel field is displayed as blank.

**Combined Primary Count and Aggregates**

The Traffic Count Data Report will display an additional page showing the Combined Primary Count and Aggregates totals if there are multiple Features with Traffic Count Data and match the following criteria:

- Have the same Survey Date.
- Have the same Survey Type.
- The Features have matching Site Numbers.
- The Features do not have exactly the same Asset Id on the same Street.

The combined Asset Ids and Survey Numbers are listed on the Combined Primary Count and Aggregates totals, and the Channel field is changed to 'All Channels'.

**% Flow Combined**

If the Traffic Count Data Report is run with the 'Show Attribute Type Breakdown' tick box ticked, and the additional page for Combined Primary Count and Aggregates is displayed, then a % Flow Combined value will also be displayed for each Aggregate Time Slot for every Attribute Value. The % Flow Combined value for each Aggregate Time Slot is calculated by:

\[
\frac{\text{Attribute Value for an Aggregate Time Slot}}{\text{Sum of all Attribute Values for that Aggregate Time Slot}} \times 100.
\]

**Hourly Aggregate Total**

If the 'Show Attribute Type Breakdown' tick box is ticked then the Traffic Count Data Report will also display Hourly Aggregate Total for each Primary and Aggregate Time Slot. This will display the sum of all Attribute Values corresponding to every Time Slot. If Count Data for any of the Attribute Types is missing, then the Hourly Aggregate Total value of the corresponding Time Slot will be displayed as Blank.

**Note:** The Report displays a maximum of 15 Attribute Values for Traffic Count Surveys which have a Survey Type with an Attribute Type specified. Any additional Attribute Values will not be displayed on the Report, but the hourly Aggregate Total will display the correct value.
Traffic Count Summary Report

(Traffic Count Data module)

The Traffic Count Summary Report is used to normalise the Traffic Count Data gathered within Confirm in order to adjust it to be a representative value for any month or year.

The Traffic Count Summary Report can be used to monitor the Traffic Flow on a Road Network, and help identify increases in the Flow over a period of time which could result in traffic calming schemes being proposed.

The Report has two Report Levels, Annual and Monthly.

Annual

The Traffic Count Summary Report with Report Level as 'Annual' will display the Average Annual Weekday Flow (AAWD) for all the selected Features with Traffic Count Surveys that match the specified filter criteria.

The Report will only include Traffic Count Surveys in its AAWD calculations that have the following criteria:

• a Survey Type with an Aggregate Time Slot Level specified.
• an Aggregate Time Slot which has a duration of 16 hours.

The AAWD field will be calculated by averaging the 16 hours Aggregate Time Slot for Weekdays for all the Traffic Count Surveys found, for a year.

The Report will also display the total number of Traffic Count Surveys that were included in the calculations, and the total number of months and days with Traffic Count Data.

The Number of MCC field will display the number of Manual Classified Counts (MCC) which were included in the AAWD calculation. MCC are Traffic Count Surveys with a Survey Type which have an Attribute Type specified.

The Report will then display all of the Attribute Values for the MCC's Attribute Type with a unique External Reference as individual columns. The Report will combine the Count Data for Attribute Values with the same External Reference, and a percentage is calculated for each column compared to the total for all MCC Data found by the Report. The Attribute Values with blank External References will not be displayed.

Use of Factors and Indices

Factors and Indices can be applied to the Traffic Count Data found by the Traffic Count Summary Report to normalise it and to calculate the AAWD for a year when there is incomplete Traffic Count Data for that year.

The Report Filter allows a set of Factors and Indices to be specified, which will be applied to the Traffic Count Data found. The sets of Factors and Indices and their values can be specified on the Traffic Count Rule Set screen.

Factors - The Report will apply Factors to a Feature's Weekday Traffic Count Data if the following are true:

• A Feature's Traffic Count Data does not exist for every Weekday of a week.
• The Feature does not have a Continuous Count Type. This is calculated by comparing the 'Traffic Count Type' and 'Traffic Count Type Continuous Value' fields on the Feature System Settings to the Feature's Attribute Type. If the Feature has a different Attribute Value to the 'Traffic Count Type Continuous Value' specified against it as a Feature Attribute then the Report will apply Factors to the Feature's Traffic Count Data. Where the Feature's Attribute Value does match the 'Traffic Count Type Continuous Value' then the Report will not apply Factors to the AAWD calculations.

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**Indices** - The Report will apply Indices to a Feature's Traffic Count Data if the Traffic Count Data found by the Report does not exist for all the months in a year. If the Report finds a Feature whose Traffic Count Data does cover every month of the year then it will not apply Indices in it AAWD calculations.

**Monthly**

(Traffic Count Data module)

The Traffic Count Summary Report with Report Level as 'Monthly' will display the Average Weekday Flows (Av5d) and Average All Days Flows (Av7d) for all the selected Features with Traffic Count Surveys that match the specified filter criteria.

The Report will only include Traffic Count Surveys that meet the following criteria:

- a Survey Type with an Aggregate Time Slot Level specified.
- an Aggregate Time Slot which has a duration of 16 hours.
- an Aggregate Time Slot which has a duration of 24 hours.

The Av5d16hr & Av5d24hr fields will be calculated by averaging the 16 hours Aggregate Time Slot & 24 hours Aggregate Time Slots respectively, for Weekdays for all the Traffic Count Surveys found, for every month.

The Av7d16hr & Av7d24hr fields will also include the Weekend data along with Weekday data for 16 hours and 24 hours Aggregate Time Slots respectively.

The **Weekday Data** and **Weekend Data** fields will specify the number of Weekdays and Weekends covered by the Traffic Count Data found by the Report. The Report will also display the total number of days with Traffic Count Data and whether data for Saturdays and Sundays was present.

The Report will then display all of the Attribute Values for the Manual Classified Count's (MCC) Attribute Type with a unique External Reference as individual columns. MCC are Traffic Count Surveys with a Survey Type which have an Attribute Type specified. The Report will combine the Count Data for Attribute Values with the same External Reference, and a percentage is calculated for each column compared to the total for all MCC Data found by the Report. The Attribute Values with blank External References will not be displayed.

**Use of Factors**

Factors can be applied to the Traffic Count Data found by the Traffic Count Summary Report to normalise it and to calculate the different values on the Report for a month when there is incomplete Traffic Count Data for that month.

The Report Filter allows a set of Factors to be specified, which will be applied to the Traffic Count Data found. The sets of Factors and their values can be specified on the Traffic Count Rule Set screen.

**Factors** - The Report will apply Factors to a Feature's Weekday and Weekend Traffic Count Data if the following are true:

- A Feature's Traffic Count Data does not exist for every Weekday of a week.
- The Feature does not have a Continuous Count Type. This is calculated by comparing the 'Traffic Count Type' and 'Traffic Count Type Continuous Value' fields on the Feature System Settings to the Feature's Attribute Type. If the Feature has a different Attribute Value to the 'Traffic Count Type Continuous Value' specified against it as a Feature Attribute then the Report will apply Factors to the Feature's Traffic Count Data. Where the Feature's Attribute Value does match the 'Traffic Count Type Continuous Value' then the Report will not apply Factors to the calculations.
Feature Import

The Feature Import Folder contains the tools for importing Tab Delimited text files. The Tab Delimited files must be set up in a particular way - the method for setting up the import files is described in the Import Specification.

Click on the appropriate Import utility, and enter (or select from the pick button) the path to the import file location, for each file required. Not all of the files are always required. If information is already in the libraries then the library file can be omitted. For instance - A Feature Type import would omit the Measurement Types file if the Confirm Measurement Type library already contained all the Measurement Types referred to in the Group file and the Group Measurement file.

Click on OK to run the import utility. A preview will be displayed, indicating whether all the records can be successfully imported. If a record cannot be imported, an error message will be displayed. The import can be continued, but the erroneous record(s) will be omitted from the import.

Save the Preview to carry out the import.

The import would usually be carried out in the following order:

1. Import Feature Types
2. Import Feature

The remaining imports can then be carried out in any order.

Imports may be carried out to populate an empty database, or to add to already existing records, providing Codes are unique. Records carrying codes already existing in the database will be rejected - existing records cannot be overwritten.

Imported Features will automatically create default Attributes, Conditions, Dates, Measures, Regimes and Smart Attributes for each record. These defaults will be inherited from the Feature Group of the imported Features, except for Regimes, which will be set from the Feature Type, except where a Classification has been specified and that Classification is not the same as that of the Feature. Measurements will only be created where they are not supplied as part of the import.

Import Data can be used to import Traffic Count Survey.

Note: Import Specification provide detailed information on all Import Specifications used throughout Confirm.
Feature Lookups

Feature Lookup libraries contain data for completing Feature form fields and for generating default entries.

The Feature Group lookup provides the tool for grouping Feature Types and providing parameters (from other Lookups) that will be common to all the Types. This ensures that when a Feature Type is selected for a Feature, it will automatically have entered against it all the Measurement Types, Text and Smart Attribute Types, Date Types and Observation Types, it may use. All these Types will either have no value, or the Value ‘NA’, ascribed to them. These are entered (or selected from linked Value libraries) for the individual Feature.

The following Lookups must be completed before Features can be created: Unit of Measure, Measurement Type, Feature Group, and Feature Type.

Feature Type

A Feature Type will define a Feature for the purposes of maintenance and/or valuation. Because Features Types are assigned to Feature Groups, and Feature Groups carry a set of Measurement Types, Text and Smart Attributes Types, Inventory Types, Observation Types; and Date Types, setting the Feature Type will set default Types for a Feature by reference to the Group.

Feature Types may also be called: Species (Confirm Arboriculture), or Carriageway Type (Confirm Street Works and Confirm Highways). Please see the Confirm Books Overview manual for details.

Confirm Books Overview\Terminology in Confirm Products

- **Code**: Up to four alphanumeric characters.
- **Description**: Up to thirty characters.
- **Feature Group**: Select from the drop down list. The drop down list references the Feature Group Lookup.
Note: It is not possible to change the Feature Group of an existing Feature Type if any Features or Inventory Items exist.

(Asset Valuation Module)
Feature Types may be linked with Asset Categories and Hierarchy Levels to provide defaults for associated Features.

Asset Category: Enter or select from the pick list. The pick list references the Asset Category Lookup. This Asset Category will be the default for new Features of this Type.

Hierarchy: Select from the pull down list. The pull down references the Hierarchy Level Lookup.

Order: You may assign a display order to the Feature Type. The lower the number, the higher up the lookup list the Feature Type will appear. Where several Feature Types are assigned the same sort number, they will sort alphabetically by Feature Type Name within the sort number.

Note: Types with no Order number assigned will appear first in the list, followed by those with Order numbers in the assigned order.

Number of Lanes: (PMS - Observation Data module)
Enter the number of Lanes that this Feature Type will have.

Number of Nearside ...: (PMS - Observation Data module)
Enter the number of surveying directions for this Feature Type.

External Reference: (Condition Survey - BCI Reports module)
When using the Structures Data Export utility to export Structures data this field is exported and must be exactly the same as the Structures Toolkit values. See Structures Toolkit Export System Setting for full details on configuring your Structures data.

Maintenance Regimes will be automatically entered for their related Feature Types when the 'Allocate Applicable Regimes' utility is run. See Asset Maintenance - Allocate Applicable Regimes.

Regime Applicability
Maintenance Regimes can be manually added for the Feature Type by clicking on the Detail button, and selecting the appropriate Maintenance Regime from the Regime pick list. The pick list references the Maintenance Regimes.

See Asset Maintenance\Maintenance Regime

Feature Group

The Feature Group provides the means of grouping Feature Types so that parameters, which are common to a group of Feature Types, can be applied. The parameters include Measurement Types, Text Attributes and Observation Types. The Groups also provide a means of selecting which Features will be available for Ad hoc inspection (Condition Survey Module), whether Text Attributes and Smart Attributes will be shown on Works orders (Extended Attributes module) and a means of applying a condition grade Weighting within the Feature Group.

Where the Inventory module is present, Groups may have Inventory Types assigned to them so that Features in that Group can have Inventory Items in the specified Inventory Types added to them. In-
Inventory Types are in turn allocated to Inventory Groups to assign the Attribute Types that are to be available for an Inventory Item.

- **Code**: Up to four alphanumeric characters.
- **Name**: Up to thirty characters
- **Primary Measurement**: Select from the drop down list. The drop down list references the Measurement Type Lookup. (The Primary Measurement will be entered in the Measurement field of the Feature tab of the Feature form)
- **Valuation Measurement**: (Asset Valuation module) Enter (or select from the drop down list) the Measurement type that will be used when calculating the value or depreciation for Assets in this Group.
  - Where the Asset Valuation module is not present, this field can be left blank.
- **Select for Adhoc Inspections**: (Condition Survey module) Check this box to include all Features in this Group in the list of Features available for Ad Hoc inspection on mobile devices.
Features that are not available for Ad Hoc inspection cannot have Ad Hoc Defects raised against them from a mobile device. However, on the Host, this setting does not apply and any Feature can have a Defect raised against it.

See Condition Survey for details of Ad Hoc inspections. If the Condition Survey module is not used - this check box can be ignored.

**Maintain History:** (Asset Register - Audit Trails module)

Check this box to include all Features in this Group in a Feature Entity History report on changes made to Features.

**Feature Group Class:** (Asset Register - Linear Assets)

This field will only be visible if the Linear Assets Module is present. Select from:

- 'Linear Asset' - To allow linear parameters in Features of this Group.
- 'Discrete Asset' - To disallow linear parameters in Features of this Group.

**Device and Web Data Key:**

In ConfirmConnect, this controls what Features can be created. A user can only create a Feature of a Feature Group to which they have at least View access. It has no impact on what Features are visible on ConfirmConnect but it does restrict the Features that can be added as Inventory links or references.

In Confirm web interface, this controls what Features are visible on the Enquiry map. A user will only see Features of a Feature Group to which they have at least View access.

**Cost Code:**

Select a Cost Code which is to be used for the creation of Features in this Feature Group when imported from the mobile. If this is not set then the Features will inherit the Cost Code from the Site.

**Contract Area:**

Select which Contract Area is to be used for the creation of Features in this Feature Group when imported from the mobile. If this is not set then the Features will inherit the Contract Area from the Site.

**Customer Code:**

Select which Customer is to be used for the creation of Features in this Feature Group when imported from the mobile. If this is not set then the Features will inherit the Customer from the Site.

**Confirm Database Map Layer**

When first setting up Confirm to use a Confirm Database Map Layer, some configuration steps are required, if these steps have not been performed you may receive errors. Please refer to the section in the help for further advice on how to set up your database to support using internal Confirm tables as map layers.

**Feature Group - tabs**

The tabs are used to define the ways in which the Feature on the Groups may be accessed and viewed, as well as defining the parameters that will default to a Feature when a Feature Type is selected. (Feature Types are placed in Groups in the Feature Type lookup).

The following can be added: Measurement Types, Text Attributes, Smart Attributes, Date Types and Observation Parameters. All the tabs can be left blank if there are no parameters required - including a parameter does not force a Value to be added for any particular Feature.
Types can be added to the tabs at any time after the creation of the Feature Group. Adding Types to the Feature Group will offer the option of adding the Type (with no Value) to all the pre-existing Features. This may be accepted or refused.

**Feature Group - Additional tab**

![Image of Additional tab](image)

**Site Group**
The default Site Group will be entered and may be altered by selection from the drop down list.

The default Site Group is set in the Site System Defaults.

**Site Register\Site Lookups\General Site Lookups**

Site Groups are stored in the Site Group Lookup.

**Site Register\Site General\General Site Lookups**

Assigning a Feature Group to a Site Group allows Features in that Feature Group to be added to Sites in the associated Site Group.

**PF Smart Attribute Type**

If you wish to set up a Price Factor Matrix for this Feature Group, you must select the Smart Attribute whose values will be used in the Price Factor matrix. See ‘PFactor button’ below for information on setting up a Price Factor matrix. The drop down list references the Smart Attribute Lookup.

**Discrepancy Data Source**

Select a Data Source that will be used for Feature Discrepancy checks.

These checks will be run whenever a Feature is created or updated in the Feature screen, of a Feature Group that has a Discrepancy Data Source specified. This is to validate the entries made for the Feature against a user-defined set of criteria, in addition to the standard validation carried out by Confirm.

The Data Source is run and a message displayed to the user if anything is returned. Note that this does not prevent or undo the update, but just provides a warning to the User.

For details on configuring the Data Source to be used see **Validation Data Sources**

**Validation Data Source**

(Asset Validation Module)
If the Batch Validate Features utility is to be used for Features in this Feature Group, select the Data Source that will be used for this validation.

See **Batch Validate Features** for more information.

**Asset Number Range From / To**

Supply a range of numbers which will be used to automatically allocate the Asset Number for new Features created in this Feature Group.

If these settings remain blank, Confirm will use the range set in the **Feature System Settings**. If these are blank, a number between 0-99999999.99 will be used when Features are created.

**Asset Number Increment**

Supply an increment which will be used for each Feature created.

**Mapping Options:**

**Use Confirm Database Map Layer**

Select this option to create a map layer containing all Features from the selected Feature Group that have spatial information recorded against them in the Confirm database. Spatial data for all the valid and unmapped point features will also be created if Map Layer Geometry Type is set to 'All', 'Point' or 'Multipoint'. The layer's name will be the Feature Group name and it will be stored in the Confirm database with the Feature data. The layer will be available for selection from the Workspace Manager.

De-selecting this option will remove the layer from the Workspace Manager and it will no longer be available for selection. The original layer will remain on any Workspaces it was assigned to before it was deleted.

A 'Referential Integrity Map Layer' can still be picked when this option is selected which will export Feature changes to the selected layer but this would not be the layer that is maintained.

**Mapping Options:**

**Map Layer Geometry Type**

Selecting a Layer Type will only allow spatial geometry of that specific geometry type to be created for Features belonging to this Feature Group.

Only available when "Use Confirm Database Map Layer" is enabled and is defaulted to "All".

The "All" option will allow any supported **Spatial Geometry Types**.

On saving a Feature Group, that uses the "Use Confirm Database Map Layer" option, a warning message may display a list of geometry types which already exist for Features in this Feature Group.

Changing this value will not change the Geometry data for Features stored in Confirm.

**Mapping Options:**

**Do Not Use Confirm Database Map Layer**

Selecting this option will mean that Feature Group layers will not be created for the selected Feature Group.

Instead there will be an option to use a Referential Integrity Layer (selected underneath this option) to maintain Feature geometry.

**Referential Integrity Map Layer**

(0440 - Referential Integrity module and 0425 Map module)

If the 'Do Not Use Confirm Database Map Layer' option is selected then this field can be used to select a registered layer as a designated Referential Integrity Layer for the selected Feature Group.

When Features in this Feature Group are created or updated the attributes on this map layer will also be updated when the Referential Integrity Agent runs. The spatial representation on this layer will be placed at the Centroid coordinate. If the Feature's spatial representation already exists it will only be updated if the map shape is a point.
### Feature Group - Display tab

The display tab allows you to add Feature Groups as menu items in the Confirm Explorer, and to configure a display order for the tab on the Feature form.

**Specific Menu Option**

Check this to indicate that this Feature Group should be available in a menu option in the Asset Register folder in the Confirm Explorer. Up to 85 Feature Groups can be configured to appear in the Explorer.

In the above example the 'Trees' group has the flag set, which results in a new menu option appearing in the Confirm Explorer.

Feature Groups with a Feature Group Class of 'Linear Asset' will also appear in the Network Manager folder. Up to 15 Feature Groups can be configured to appear there.

**Note:** You will need to log out of Confirm (for example use the Coffee Cup icon), and log back in for the menu item to become available. It then needs to be added to the program rights of each user who will need the menu item, by selecting it in the User Security form (for an individual User), or in the User Security Group form (for all users in that Group, when the 'Users' button is clicked).

**Show Identification Image**

The Feature screen will show an Identification Image, selected from the Document Links attached to a Feature, if this functionality has been activated.

Select here whether to default to showing the oldest or most recent Link as the Identification Image (according to the 'Document Date' field).

See [Feature Identification Image](#) on page 9 for more information.

**Tab Display Order**

Each tab may be assigned a number, which will place it in order in the Feature window from left to right. In the illustrated example, the Attribute tab will be the first tab on the left for Features in this Feature Group, followed by the Additional tab, then Geography and Smart Attributes.

Where no number is entered the tab will be hidden when viewing Features in that Feature Group. In the above example the Valuation Tab and the References tab will not be seen when viewing Features in the Trees Group.

### Feature Group - Measures tab

The Measures tab lists all Measurement Types (including the Primary Measurement) associated with this Group and makes them available in the Feature Windows.
To add a new Measurement Type:
Click on Detail to display the Group Measurement form.

The Primary Measure will already be entered. Click on the 'new page' button, and select from the drop down list to add a Measurement Type. The drop down list references the Measurement Types lookup

Show on Works Order: Check this box to display the Measurement Types and associated measurements on a Non-routine Works Order.

Feature Group - Conditions tab

The Conditions tab lists all Observation Types associated with this Group and makes them available in Condition Grades window off the Feature form (found under 'Conditions' on the 'Other' button).

To add a new Observation Type:
Select the Condition tab and click on Detail to display the Group Condition form.
Select from the pick list to add an Observation Type. The pick list references the Observation Types lookup.

**Note:** Selecting an Observation Type to link with this Group will make these Types available within the Condition Survey module when an Inspection batch is raised. You should therefore include against a Group all the Observations you will wish to make when you inspect.

**Weighting:** Enter a number here to weight the score associated with the Observation Parameters linked to the Observation Type. The weighting multiplies the score so that a 'Poor' parameter, scored at 8, will acquire greater weight for Features in a Feature Group weighted at 3 (the score becomes 24), than for Features in a Feature Group weighted at 1 (the score becomes 8).

Where a score has been applied, there must therefore be a weighting of more than zero (because multiplying by zero will return zero score).

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

**Feature Group - Attributes tab**

The Attributes tab lists all Attributes associated with this Group and makes them available in the Feature screens.

**To add a new Attribute:**
Select the Attributes tab and click the 'Detail' button to display the Group Attribute Type form.
Select from the drop down list to add an Attribute Type. The drop down list references the Attribute Types lookup and displays all Attribute Types of a 'pick list' or 'text' Type. Adding an Attribute Type to a Feature Group will automatically create the Attribute with its default value against all Features of the Feature Group – for Pick List Attribute Types this is the Not Applicable Value, for Text Attribute Types it is blank.

**Note:** Only Pick List and Text Attribute Types may be added. To add numeric or date values to Features, use the 'Measures' and 'Date Types' tabs respectively.

**Mandatory:** Check this to ensure that this Attribute is supplied before a Feature carrying it can be saved. This check will be performed on the Feature and Feature Details screens when Feature Attributes are being edited. Confirm will prevent the save if a Mandatory Attribute is left with the 'Not Applicable' value (or for Text Attributes, is left as blank or just containing space characters).

The Feature screen will also prevent the save if any Mandatory Attributes for Inventory Items have not been supplied.

**Show on Works Order:** Check this box to display the Text Attribute Types and Values associated with the Feature on a Non-routine Works Order.

**To Delete an Attribute**

Deleting an Attribute Type from a Feature Group where there are existing Features with a value set for the Attribute will display a warning to the user. The user then has the choice to either delete the Attributes from all the Features, or to leave those with values set and delete only the Attributes still set to the default value.

**Feature Group - Date Types tab**

The Date Types tab lists all Date Types associated with this Group and makes them available in the Feature Windows.
To add a Date Type:

Select the Date Type tab and click on Detail to display the Group Date Type form.

Select from the drop down list to add a Date type. The drop down list references the Date Types lookup.

**Show on Works Order:** Check this box to display the Date Type and associated Dates on a Non-routine Works Order.

**Feature Group - Smart Attributes tab**

The Smart Attributes tab lists all Smart Attributes associated with this Group and makes them available in the Feature Windows.
**To add a Smart Attribute:**
Select the Smart Attrib tab and click on Detail to display the Group Smart Type form.

Select from the drop down list to add a Smart type. The drop down list references the Smart Attribute Types lookup

**Show on Works Order:** Check this box to display the Smart Type and associated values on a Non-routine Works Order.

---

**Feature Groups - Inventory tab**

(Inventory module)
The Inventory tab will only be present if the Inventory module is 'turned on'.

The Inventory lists all the Inventory Types associated with this Group and makes them available in the Features window. Inventory Types are assigned to one or more Inventory Feature Groups. This allows Attributes to be specified for the Inventory Type such that attributes may be assigned to them in the Feature window.

The illustrated example results in the Inventory items which are seen in the illustrated Feature. Inventory Items may be viewed or added by clicking on the 'Detail' button.

**Inventory Items**
Tab Name: This will default to 'Inventory', indicating that any inventory items added here will be shown on the Inventory tab of the Feature window. You may type in another name to create a new tab of that name, which will become available in the Feature window for Features in this Group. Once new tab names have been created they become available for subsequent selection from the Pick button.

Display Order: Affects the order in which the Inventory Type appears in the Feature window tab. 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.

Code: Up to four characters
(PMS) - This will be the code from the Rules & Parameters set being used. (This is a 2 letter code in UKPMS.)

Description: Up to 30 characters
(PMS) - Normally the description should be the same as that in the Rules & Parameters set being used.

Item Type: Make a selection to define the way in which the measurement will be derived, and whether or not Inventory Items in this Type vary by distance, i.e. more than one Inventory Item may be assigned to the Feature provided they are in different positions on the Feature.
Select from:
‘No Distance or Width’ - No measurement is required against the inventory Item on the Feature. This selection is appropriate to Inventory Items that represent discrete assets whose position is not calculated relative to chainage.
An item with no Distance or Width may not vary by distance (but may vary by XSP).

'Point (No Width)' - Provides a 'Start Distance' field against the Inventory Item on the Feature. The measurement entered in the 'Start Distance' field is copied into the 'Measurement' field against the Inventory Item on the Feature, if the Measurement is set to 'Automatic'.

'Point (Width)' - Provides a 'Start Distance' field and a 'Start Width' field against the Inventory Item on the Feature. The measurement entered in the 'Start Width' field is copied into the 'Measurement' field against the Inventory Item on the Feature, if the Measurement is set to 'Automatic'.

Multiple 'point' items may exist against a Feature providing that no two Items are placed at the same point (in the same XSP. Items may exist at the same point in a different XSP).

'Linear (No Width)' - Provides a 'Start Distance' field and an 'End Distance' field against the Inventory Item on the Feature. The 'Measurement' will be derived from the difference between the End distance and the Start distance, if the Measurement is set to 'Automatic'.

'Linear (Width)' - Provides a 'Start Distance' field, an 'End Distance' field and a 'Start Width' field against the Inventory Item on the Feature. The 'Measurement' will be derived from the difference between the End distance and the Start distance, if the Measurement is set to 'Automatic'.

Multiple 'Linear' items may exist against a Feature providing that no two Items have overlapping chainage (in the same XSP. Items may exist in the same chainage in a different XSP).

'Area (One Width)' - Provides a 'Start Distance' field, an 'End Distance' field and a 'Start Width' field against the Inventory Item on the Feature. The 'Measurement' will be derived from the difference between the End distance and the Start distance multiplied by the Start Width, if the Measurement is set to 'Automatic'.

'Area (Two Widths)' - Provides a 'Start Distance' field, and an 'End Distance' field with a 'Start Width' field and an 'End Width' field against the Inventory Item on the Feature. The 'Measurement' will be derived from the difference between the End distance and the Start distance multiplied by half the sum of the Start and End Widths (i.e. an average width), if the Measurement is set to 'Automatic'.

Multiple 'Area' items may exist against a Feature providing that no two Items have overlapping chainage (in the same XSP. Items may exist in the same chainage in a different XSP).

Measurement: Make a selection to define the way in which a Measurement may be entered into the 'Measurement' field of the Inventory item in a Feature.

Select from:

'Automatic' - The Measurement field of the inventory item will not be editable, and the entry will be calculated from the 'Start Distance', 'End Distance', 'Start Width', 'End Width' entries, as defined for Item Type above.

'User Defined' - The Measurement field of the inventory item will be editable, and no calculation will be made.

'Hidden' - The Measurement field will not appear at all for Inventory Items on the Feature. This should be selected if 'No Distance or Width' is selected as the Item Type.

Lane Location: (PMS)

Select from 'Inside', 'Outside' or 'Centre'
Asset Register

Parent Site Class: Select from:

'Maintain' - To apply the Feature Site Classification to the Inventory Item, and to update the Inventory Item in line with changes to the Feature. This will result in the Inventory item always carrying the same Site Classification as the Feature to which it is applied.

'Default' - To apply the Feature Site Classification to the Inventory Item when it is first created, and to ignore subsequent changes to the Feature. This may result in the Inventory item carrying a different Site Classification from the Feature to which it is applied.

'Hidden' - The Site Classification will not be shown against the Inventory item.

Parent Customer: Select from:

'Maintain' - To apply the Feature Customer to the Inventory Item, and to update the Inventory Item in line with changes to the Feature. This will result in the Inventory item always carrying the same Customer as the Feature to which it is applied.

'Default' - To apply the Feature Customer to the Inventory Item when it is first created, and to ignore subsequent changes to the Feature. This may result in the Inventory item carrying a different Customer from the Feature to which it is applied.

'Hidden' - The Customer will not be shown against the Inventory item.

Vary by Cross Sectional Position: Check this to allow several occurrences of this Inventory Type against a Feature, provided that each occurrence is in a different Cross Sectional Position.

Show Survey Date: Check this to display the 'Survey' field against the Inventory Item on the Feature. The Survey field displays the date of the last Survey carried out which involved this Inventory Item.

Allow Multiples (full XSP model): The box is checked when the item can have more than one occurrence at the same chainage for a Full Cross Section Position.

Show Temporary: Check this to display the 'Temporary' checkbox against the Inventory Item on the Feature.

Allow Multiples (minimal XSP model): The box is checked when the item can have more than one occurrence at the same chainage for a Minimal Cross Section Position.

Show Reversed: Check this to display the 'Reversed' checkbox against the Inventory Item on the Feature.

Vary by Attribute: An Attribute Type may be selected so that the associated values may be used to add more than one Inventory Item in this Inventory Type to the Feature. If not 'Vary by ' attribute is specified, than there may only be one instance of this Inventory item against the Feature.
For example:

In the illustrated example the Text Attribute 'Electrical - Type of Point' has been specified. The Values associated with this Attribute Type are for the various type of electrical outlet (mains, shaver point, cooker).

This allows one Inventory Item to be added to the Feature in each of the Values - an Item for all the 'Mains' points, an Item for all the 'Shaver points', an item for all the 'Cooker' points and so on.

See Feature - Inventory tab on page 11 for an illustration of Inventory Items on a Feature.

Linked Feature: Select from:

'None' - To indicate that this Inventory item will not also exist as a Feature.

'Optional' - To indicate that a linked Feature may be optionally specified against the Inventory Item on the Feature.

'Mandatory' - To indicate that a linked Feature must be specified against the Inventory Item on the Feature, i.e. the user will not be permitted to save the Feature until the Inventory Item has a linked Feature specified.

Copy 'Referenced By' of linked Feature: Defaults to unchecked, only available when 'Linked Feature' is set to 'Optional' or 'Mandatory'.

Check this to copy the details from the 'Referenced By' tab on the Feature screen to a new version of a Feature during the End-Dating process.

Data Key: Set a Data Security Key in order to limit the availability of this record to Users with rights to this Data Security Key through their Data Security Group.

Users will only be able to view / update Inventory Type and Inventory Item if they have been granted access to the Data Key associated with the Inventory Type.

Select from the drop down list. The drop down list references the Data Security Key library.

Note: This option is only visible if the current user has "Assign Data Key Manually" enabled in User Security.

Inventory Types - Transform button

(PMS)

The 'Transform' button on the Inventory Type input screen opens the Feature Group Transformations window, and provides the facility to control whether or not to allow Transformation or mapping of imported observations, e.g. condition data surveyed as belonging to a particular inventory group, to the inventory group held in the database for that section.
The Feature Group Transformation table is a matrix of all the Inventory Feature Groups assigned to that Inventory Type (as defined on the Inventory Feature Groups tab). Where an Inventory Type has no Feature Group specified, there are no entries in the Transformation table. The columns for Observation Feature Group and Inventory Feature Group are automatically completed by Confirm when the Transformation screen is launched.

Only the 'Transform' column may be edited. To change the option for transformation click in the Transform column for the appropriate row and select from:

- 'Yes' - Observations are transformed to the inventory's feature group.
- 'No Transform' - Observations are considered valid but keep their original feature group.
- 'Not Allowed' - Observations will be discarded.

Clicking on the desired option will place it in the transform field. When all the desired changes have been made click on the 'Save' button to save the changes to the database and return to the Inventory Type screen.

**Inventory Types - Default Widths tab**

(PMS)

The Inventory Default Width is set using the base unit for linear measure, normally metres. Any item that has width e.g. carriageway, channel block etc., and has a Feature Group Class of 'Linear Asset', can have a default width set that will automatically be applied in the absence of specific details being entered against the Feature. The user may then override this width for an individual inventory item at the appropriate input stage. For any item without width or for which a default is inappropriate, default width should be set at 0.00.

Select the Default Widths tab and click on the 'detail' button to display the Inventory Default Widths screen.

The top part of the form will show the current Feature Group and Inventory Type, and may not be edited.
Feature Type: Select from the pick list. The pick list references all Feature Types associated with the current Feature Group.

**Note:** The Feature Group must be of the Feature Group Class 'Linear Asset' in order for a selection of Feature Type to be made.

Default Width: Enter a number that represents the default width of Features in this Feature Type. The default width entered is based on the users estimate or the considered 'normal' or average width for the type of inventory being defined. Default widths will be used in PMS calculations where no detailed inventory data exists.

**Inventory Types - Inventory Feature Groups tab**

The Inventory Feature Groups tab defines the Inventory Feature Group (as distinct from the Feature Group) to which the Inventory Item belongs. This in turn allows Attributes to be specified for the Inventory Item.

Select the Inventory Feature Groups tab and click on the 'Detail' button to display the Inventory Feature Groups window:

- **Inventory Feature Group:** Enter a code and name to create and Inventory Feature Group for this Inventory item. The code must be unique within Inventory Feature Groups and Feature Groups.
- **Certainty within Type:** (PMS) Enter a number to set the priority of transformation within an Inventory Type for Feature Type Transformations.
- **Allow Transformation:** (PMS) Check this to allow transformation from one observed Feature Group to another during the Automatic Pass Process.
Asset Register

Linked Feature Group: This field is only available if the 'Linked Feature' field in the Inventory item window is set to 'Mandatory' or 'Optional'. If either of those is set then a selection must be made in this field to determine the Feature Group from which a selection of linked Features may be made for the Inventory item on the Feature.

The drop down list references the Feature Group lookup.

Primary Measurement: Enter here the Measurement Type that applies to the measurement shown against the Inventory Item in the Feature.

Note: The Measurement field will only display if the Inventory Type has 'Automatic' or 'User Defined' entered in the Measurement field of the Inventory Type form.

Inventory Feature Groups tab - Attributes

Attribute Types may be associated with Inventory Feature Groups to make them available in the Inventory type on the Feature.

Click on the 'Detail' button to display the Feature Group Attributes window:

<table>
<thead>
<tr>
<th>Feature Group</th>
<th>Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute Type</td>
<td>Province</td>
</tr>
<tr>
<td>Vary by</td>
<td></td>
</tr>
<tr>
<td>Priority Level</td>
<td>Relevant to Pavement Management System - all other asset types should leave the default entry.</td>
</tr>
<tr>
<td>Show on Works Order</td>
<td>Check this box to display the Text Attribute Types and Values associated with the Inventory Item.</td>
</tr>
</tbody>
</table>

The 'Vary by ' Attribute Type will already be entered by default.

Attribute Type: Select from the drop down list to add a Text Attribute Type. The drop down list references the Attribute Types lookup for all Attribute Types.

Priority Level: Relevant to Pavement Management System - all other asset types should leave the default entry.

Show on Works Order: Check this box to display the Text Attribute Types and Values associated with the Inventory Item.

Inventory Feature Groups tab - Other button

SOR Item Update Attributes

Inventory Item Attribute parameters may be updated automatically when work is raised on Features in this Feature Group, using any of the SORs specified in the SOR Item Update Attributes window. This is done to update a number attribute in line with the quantities specified in a Job so that, for instance, the quantity is added to the number when a Job is completed to install Inventory items. The update is carried out when:

• When the Job is subject to Request Checking if the 'Update Attribs\Warranties when Request Checking' flag is set in the Payment System Settings.
• When Payment on the Job is committed
Note: The Attribute Types that may be updated at the Payment Batch commit or Request Checking stage are restricted to numeric ones that are valid for the Feature Group.

Click on the Inventory Feature Groups tab - Other button, and select SOR Item, to display the SOR Item Update Attributes window:

The top part of the form displays the current Inventory Feature Group and the Feature Group class, and may not be edited.

The central pane displays all the SORs currently assigned to this Inventory Feature Group.

The fields in the lower portion of the form displays additional information about the SOR currently selected in the SORs pane.

To add a new SOR and define its behaviour:

Click on the 'New' button to the right of the SORs pane to move to a new row and clear the fields in the lower part of the form.

SOR Item: Enter, or select from the pick list, the required SOR Item. The pick list references the SOR Item library.

Full Description: From the SOR Item, may not be edited.

Attribute Type: The 'Vary by' Attribute Type is entered (as defined in the Inventory Items window) and may not be edited.

Note: only 'pick list' Attribute Types may be used in this context. Where the Vary by attribute is not a pick list type then no automatic attribute updates may be carried out.

Attribute Value: Select the Attribute Value of the Inventory Item that is to be updated. The drop down list references the Values for the 'Vary by' attribute.
Type of update: Select from:
'Add' - To add the SOR Item quantity on the Job to the Attribute specified below.
'Remove' - To remove the SOR Item quantity on the Job from the Attribute specified below.

Update Attribute Type: Select the Attribute type whose value is to be updated. The drop down list references Attribute Types added to this Inventory Type, of the type 'Number' as defined in the Text Attributes Lookup.

You may add as many SORs items as required, and each SOR will have its behaviour set in the related fields.
Click on 'Update' to save the SOR Item Update Attributes.

Spatial Geometry Types

Feature Group Geometry Types

When Feature Groups are using Confirm Database Map Layers, the Feature's spatial representation will be stored in the Confirm Database. When configuring these Feature Groups, a summary of the Geometry Types of Features within this Feature Group will be shown.

Below, is a list of geometry sub-types that fall within the Geometry Type options available on the Feature Group screen.

1. Point Types
   • Point

2. Multi-Point Types
   • MultiPoint

3. Line Types
   • LineString
   • MultiLineString
   • Curve
   • MultiCurve

4. Polygon Types
   • Polygon
   • MultiPolygon

The following types may also appear in the confirmation message when setting the Map Layer Geometry Type value.
   • Geometry
   • GeometryCollection
   • CircularString
   • CurvePolygon
   • CompoundCurve
   • Surface
   • MultiSurface
   • PolyhedralSurface
   • TIN
   • Triangle
Feature Group - 'Other' button

The ‘Other’ button gives access to the following options.

**Note:** The ‘SOR Item’ option is only available if Module 0745 (Warranty Dates) is active.

**Price Factor Matrix**

You may optionally set up a relationship between Smart Attribute values, and Priorities, such that a Price Factor is automatically selected on Non Routine Jobs when a Feature carrying a particular Smart value is used together with a particular Priority. The Price Factors to be used in each combination of Smart Attribute and Priority is determined in the Price Factor matrix.

Click on the PFActor button to display the Price Factor Matrix:

![Price Factor Matrix](image)

The top part of the form shows the Feature Group and PF Smart Attribute Type selected in the Feature Group form.

This column will list each Value found in the Smart Attribute specified as the PF Smart Attribute Type.

This column will list every Priority found in the Priority Lookup.

**Asset Maintenance>Maintenance Lookups**

This column will be blank in a new matrix, and is for the selection of the Price Factor that should be used when the accompanying combination of Smart Attribute Value and Priority is found. You may select from the drop down list. The drop down references the Price Factor Lookup.

**Using the Price Factor Matrix**

Where a Price Factor Matrix exists for a particular Feature (as determined by the Feature Group to which the Feature belongs) then the Price factor will be applied when raising Non-Routine Jobs in the following ways:

- Manually in the Job, or Order Job screens
- When Jobs are Batch Allocated onto Order (providing that no Price Factor is entered in the Order Job Batch Filter).
- Jobs raised by means of the Raise Jobs from Regimes, or Raise Jobs from Defects utilities.
- Jobs being uploaded from a mobile device. Where a Feature’s Smart Value has been altered on the mobile device, then the upload will update the Smart value on the host before applying a Price Factor.
to any jobs raised on the amended Feature (thus ensuring that the Price Factor reflects the new Smart Value for the Feature).

**Note:** The Price Factor supplied from the matrix is a default for the Job and may be altered in any particular Job.

Where no Price Factor Matrix has been set up then Price Factor default is assigned by reference to Priority.

*Failure Matrix*

(Performance Monitoring module)

The Failure Matrix combines a Feature Group with Classification and Failure Type so that the system can select the correct Failure Type when an ‘unacceptable’ parameter is applied to a Feature during a Feature Monitoring Inspection.

Select Failure Matrix in the ‘Other’ button drop down menu to display the Failure Matrix:

The top part of the form displays the current Feature Group.

The central pane contains one row for each Site Classification found in the Classification Lookup.

**Site Lookups › Operational Lookups › Classifications**

The Site Classifications are displayed in the left-hand column, the remaining column to the right display the information about Failure Type and follow-ups.

**Note:** use the bottom scroll bar to view column to the right.

The lower portion of the form is for selection of the parameter for the currently selected row in the central pane:

- **Site Class:** Displays the Classification that is currently highlighted in the pane above.

- **Failure Type:** Select the Failure Type that will be applied to Feature in this Feature Group, carrying this Classification, if they are assigned an unacceptable Condition Grade
on a first inspection. The drop down list references the Failure Type Lookup for all Failure Types that are set to: ‘All Inspections’ or ‘First Inspections Only’.

**Performance Monitoring\Monitoring Lookups**

**Follow Up:** This field will be available if the Failure Type selected in the previous field is one that has been flagged for ‘Re-inspection’.
Select the appropriate Follow Up for the second Inspection. The drop down list references the Follow Up Lookup.

**Asset Maintenance\Maintenance Lookups**

**Failure Type:** Select the Failure Type that will be applied to Feature in this Feature Group, carrying this Classification, if they are assigned an unacceptable Condition Grade on a subsequent inspection. The drop down list references the Failure Type Lookup for all Failure Types that are set to: ‘All Inspections’ or ‘Re-Inspections Only’.

**Performance Monitoring\Monitoring Lookups**

**Note:** a subsequent Inspection is one where a Failure exists, with a Reinspection date

**Follow Up:** This field will be available if the Failure Type selected in the previous field is one that has been flagged for ‘Re-inspection’.
Select the appropriate Follow Up for a subsequent Inspection. The drop down list references the Follow Up Lookup.

**Asset Maintenance\Maintenance Lookups**

The Failure Matrix is completed for each required Feature Group, in each relevant Classification.

**SOR Item**

This option is only available for Feature Groups of the Feature Group Class ‘Discrete Asset’.
Feature Attribute values may be updated automatically when work is raised on a Feature in this Feature Group, using any of the SORs specified in the SOR Item Update Attributes window. The committal of payment for the Job will update the Attribute value to that specified in the SOR Item Update Attributes window.
Click on the ‘Other’ button, and select SOR Item, to display the SOR Item Update Attributes window:
The top part of the form displays the current Feature Group and the Feature Group class, and may not be edited.

The central pane displays all the SORs currently assigned to this Feature Group.

The fields in the lower portion of the form displays additional information about the SOR currently selected in the SORs pane.

To add a new SOR and define its behaviour:

Click on the 'New' button to the right of the SORs pane to move to a new row and clear the fields in the lower part of the form.

- **SOR Item**: Enter, or select from the pick list, the required SOR Item. The pick list references the SOR Item library.

- **Full Description**: From the SOR Item, may not be edited.

- **Attribute Type**: Select an Attribute Type from the drop down list. The drop down list references the Attribute Type for Pick List Attribute Types.

- **Attribute Value**: Select the value that is to be applied to the Attribute Type for a Feature that has work carried out on it using this SOR Item.

  **Note**: the Feature must already have the Attribute Type assigned to it. Feature Group - Attributes tab on page 106 - for information on assigning Text Attributes to Features.

- **Type of update**: This field is not available for Feature Attribute updates.

- **Update Attribute Type**: This field is not available for Feature Attribute updates.

You may add as many SORs items as required, and each SOR will have its Attribute and Attribute value set in the related fields.
Click on 'Update' to save the SOR Item Update Attributes.

**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.

---

**Observation Type**

<table>
<thead>
<tr>
<th>Code</th>
<th>RC01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Gravel/Earth</td>
</tr>
<tr>
<td>Description</td>
<td>Visual Road Condition</td>
</tr>
<tr>
<td>Parameter</td>
<td>PASS Parent Observation</td>
</tr>
<tr>
<td>Impact</td>
<td>Dead</td>
</tr>
<tr>
<td>Display Order</td>
<td>No Code Allocated</td>
</tr>
<tr>
<td>Date Type</td>
<td>Pick List</td>
</tr>
<tr>
<td>Device Data Key</td>
<td></td>
</tr>
<tr>
<td>External Reference</td>
<td></td>
</tr>
</tbody>
</table>

**Feature Groups**

<table>
<thead>
<tr>
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<th>Import</th>
<th>Ver</th>
<th>Sev</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congressional District</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Parameter:**

- **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 - 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.
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 Type - Feature Groups**

Observation Types can be assigned to Features manually on the Feature screen, by association with a Feature Group - Conditions tab on page 105, or by using the Allocate Condition Values on page 86.

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 on page 105 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 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

Unit of Measure

The Unit of Measure lookup should contain a list of all the Units of Measure that will be required within Confirm. The library can be added to as units become necessary.
The list would usually comprise the standard metric measures such a Metre and Square Metre, an Hour - for hourly paid work, a Pound (£) for raising work for which a price has been quoted and a Number for counting items.

**Code:** Up to four alphanumeric characters

**Description:** Up to thirty characters

**Rate Uplift:** Checked by default, to indicate that Items priced using this measure (e.g. - per Square Metre), may be uplifted when a Rate Uplift is applied.

**Note:** usually only one item is NOT checked for Rate Uplift: the Unit of Measure for a currency unit. An SOR item representing a unit of currency, which is used to directly apply a value to work, should not suddenly acquire a greater value.

**This Unit uses:** Check these boxes if you wish to used the relevant components to enter measurements. If you checked Length and Width for the Unit ‘Square Metre’ for instance - you would be required to enter Length and Width when entering the Measurements for a Job. If you prefer to work directly in Square Metres (and not Length and Width) then do not check these boxes.

**Measurement Type**

The Measurement Type defines the Measurements that will be taken for a Feature, with the Unit of Measure used for the Measurement.

Using Measurement Types allows several measurement to be entered against a Feature which all use the same Unit. So, for instance, Height, and Spread can be entered against a tree - both measured by the Metre.

Measurement Type can also be used to define work by defining the Measurement to which work will be done. So a flowerbed can have a measurement for ‘Mulching Area, which is distinct from the ‘Overall Area’.

Measurement Types are therefore used to define the Feature Measurements, and, possibly, to define the work that will be carried out.

![Measurement Type Table](example.png)

**Code:** Up to four alphanumeric characters

**Description:** Up to thirty characters
Asset Register

Unit of Measure: Select, from the Drop down list, the Unit of Measure used to take this Measurement. The drop down list references the Unit of Measure Lookup.

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 measurement type as an attribute on their Survey tasks.

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

Named Selection

A Named Selection groups together any set of Features in any order that the user defines. Named Selections can be used throughout Confirm wherever there is a filter option for Named Selection. It allows the selection of groups of Features that cannot be picked out by any other filter criteria.

The named selection lookup will more usually be used to view and edit existing Selections, rather than to create Named Selections from scratch (although that can be done).

Note: Named Selections are restricted by Work Group throughout Confirm. When a new record is created it will be assigned the Work Group automatically from the current User.

Code: Up to eight alphanumeric characters

Description: Up to fifty characters

Total Measurement: Displays Primary Measures for the Features. Cannot be edited.

Notes: Optional free text field
A Named Selection can be created anywhere the Named Selection button can be seen, which will usually be on Asset / Inventory forms, lookup lists, and report previews.

Clicking on the Named Selection button will allow the user to save whatever list of Features is present in the report (if a report has been run) or lookup list (if a filter has been run).

See System Fundamentals: Common Buttons, for details on how to create a Named Selection.

**Hierarchy Level**

(Hierarchy module)

Features can be assigned a Hierarchy level which will indicate their relationship to one another in terms of being ‘above’ or ‘Within’ another Feature, or ‘below’ or ‘Contains’ another Feature. A Feature may only contain Features of a lower hierarchy than itself, and may only be contained in a Feature of a higher hierarchy than itself.

Regardless of the hierarchy level assigned to Features, they all carry equal weight within Confirm. Ascribing a hierarchy level is done purely for reporting purposes, in order to be able identify, and report on, all the Features that come ‘within’ another. For Valuation purposes in particular, reports can be obtained on groups of Features within other Features.

![Hierarchy Level](image)

- **Hierarchy level:** Enter a number between 1 and 99.
  - 1 indicates the highest possible hierarchy.
  - 99 indicates the lowest possible hierarchy.

- **Description:** Up to 30 characters

**Connection Mode**

(Connectivity Module)

The Connection Mode describes the relationship one Feature may have with another. The connection is considered as having two directions: a connection ‘to’, and a connection ‘from’. These are described as ‘Connection Mode’ and ‘Opposite Mode’. These two are paired in the Lookup so that entering a Connection Mode for a Feature will automatically enter the related Opposite Mode against the connected Feature (or vice-versa).

There must therefore be two entries in the lookup - Connection and Opposite - even where no flow direction is implied. It doesn't matter which way round these are set (whether the ‘connection to’ is the Connection Mode or the Opposite Mode), but it would be good practice to set them all the same way.

The connections, once set for Features, are used to report on linked Features - particularly where a Defect, or work carried out on one Feature will impact on the connected Features.
Connection Mode: Enter a Code (up to four alphanumeric characters) in the first part of the field. Enter a Description (up to 30 characters) into the second part of the field.

Opposite Mode: Enter a Code (up to four alphanumeric characters) in the first part of the field. Enter a Description (up to 30 characters) into the second part of the field.

**Attribute Types**

(Extended Attributes)

Attribute types can be used to describe any aspect of the Feature that can be set as a type with a range of values. Attributes are set up as Types, each with a range of possible Values.

(Asset Valuation Module)

Where the Asset Valuation Module is present, Text Attribute values may be used to factor the Replacement and life values for Features that carry these Attributes and values.

- **Code:** Up to four alphanumeric characters
- **Name:** Up to thirty characters
- **Description:** An optional, free text field. This value is used in ConfirmConnect® to give further information about the Attribute Type in order to aid the setting of the Value.
- **Not Applicable Value:** This value will be used on any Feature which has this Type applied and has not yet been assigned a Value. This has a default of NA, the Code and description may be changed.
- **Display Order:** Affects the order in which the Type appears in the Feature tab and when Features are viewed on a mobile device. 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.
- **Type:** Select from:
  - 'Pick List' - To define values that will form a drop down list from which a user will pick when assigning values in this Attribute Type.
  - 'Text' - To apply free text as the value in this Attribute Type.

The following Types are only applicable in the Inventory module to Attribute applied to Inventory Items:

- **Number** - To apply a number value in this Attribute Type
- **Date** - To apply a date value in this Attribute Type
- **Date Time** - To apply a date and time value in this Attribute Type.
Note: Only Pick List and Text Attribute Types may be chosen for use as Feature Attributes, since Number and Date Attributes are implemented as Measurement and Date Types respectively. The Number, Date and Date Time Types are used for Inventory Attributes.

Case: (Inventory module)
Where a 'Text' Type this field will be available. Select from:
'Any' - To allow text entries in Upper or lower case, or a combination of both.
'Upper' - To force text entries to Upper case.
'Lower' - To force text entries to lower case.

Decimal Places: (Inventory module)
Where a 'Number' type is selected this field will be available for defining the number of decimal places displayed for a number entry.

Maximum Width: (Inventory module)
Where a 'Text' type is selected this field will be available for defining the maximum width (in number of characters) of the text entry field.

Proportional: (Inventory module)
Where a 'Number' type is selected this field will be available to indicate if the Parameter Value is proportional to the 'size' of the field that it is recorded against. For example, the area of cracking on a Feature would reduce if the Feature was split (proportional), but the number of lanes would not (not proportional).

Depends on: If the current Attribute Type's Values are dependent on another Attribute Types Values then specify the appropriate Attribute Type here. This will apply a default value for this Attribute Type when a value for the dependent Attribute Type is entered. See Setting Attribute Dependencies on page 135.

Unit of Measure: (Inventory module)
Where a 'Number' type is selected this field will be available for the selection of a Unit of Measure. The drop down list references the Unit of Measure lookup.

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 attribute type on their Survey tasks.

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

Attribute Values

Click on the 'Attr Value button to display the Attribute Value form.
Asset Register

Attribute Value: Up to four alphanumeric characters

Description: Up to 30 characters.

Display Order: Affects the order in which the Value appears in a drop down list. A Value numbered 1 will appear at the top of the numbered list, a Value numbered 9999 will appear at the bottom. Unnumbered Values will be listed before numbered ones.

Minimum / Maximum / Nominal: These fields are used in 'Number' type Attribute Types to define the allowable number range (by setting a 'Minimum' and 'Maximum') and to ascribe a default value (by setting a 'Nominal' value).

Inactive: To remove this value from the list of values the user may chose from when assigning a value to an Attribute on a Feature or Inventory item.

Warning if Used: Flag this to display a warning when this Parameter Value is used.

Feature Status: This setting may be used to determine the Feature Status (whether the Feature is 'Live' or 'Dead') based on the value applied to the Feature Attribute. Select from:

- 'No Effect' - Setting this value on a Feature Attribute will not affect the Feature Status.
- 'Set to Active' - Setting this value on a Feature Attribute will set the Feature Status to 'Live'.
- 'Set to Inactive' - Setting this value on a Feature Attribute will set the Feature Status to 'Dead' and apply an End date.
You may set a colour value to Attribute values that will display results in the Dashboard).

See Reporting\Dashboard\Attribute Types for full details on using Attribute Types in the Dashboard.

This setting allows a warning message to be specified that will appear when a Feature or Inventory Item carrying this Pick List value is selected on a Job.

**Note:** Risk Warnings are not applicable to Date, Text or Number Attributes.

This field is used to group Attribute Values together on the Traffic Count Summary Report.

When using the Structures Data Export utility to export Structures data this field is exported and must be exactly the same as the Structures Toolkit values. See Structure Toolkit Export System Settings for full details on configuring your Structures data.

Where the Asset Valuation Module is present, the following fields are displayed and used:

- **Replacement Factor:** Enter a number to represent a percentage increase on the Replacement value for any Feature carrying this Attribute Type and Value. Minus numbers may be entered to apply a percentage reduction on the Replacement Value.

- **Replacement Supplement:** Enter a number to represent a direct addition to the Replacement value for any Feature carrying this Attribute Type and Value. Minus numbers may be entered to apply a direct reduction on the Replacement Value.

  **Note:** If both Replacement Factor, and Replacement Supplement are entered, then the Factor percentage will be calculated before the supplement value is added.

- **Residual Factor:** Enter a number to represent a percentage increase on the Residual value for any Feature carrying this Attribute Type and Value. Minus numbers may be entered to apply a percentage reduction on the Residual Value.

- **Residual Supplement:** Enter a number to represent a direct addition to the Residual value for any Feature carrying this Attribute Type and Value. Minus numbers may be entered to apply a direct reduction on the Residual Value.

  **Note:** If both Residual Factor, and Residual Supplement are entered, then the Factor percentage will be calculated before the supplement value is added.

- **Life Factor:** Enter a number to represent a percentage increase on the life for any Feature carrying this Attribute Type and Value. Minus numbers may be entered to apply a reduction on the life.

  **Note:** Life Factor is calculated in days.

**Setting Attribute Dependencies**

Set the Attribute Value Dependencies by clicking on the Depend Button on the Attribute Type form.

**Note:** The Depend button will only become active if an Attribute Type has been specified in the 'Depends on' field in the Attribute Type form.
Asset Register

The top part of the Attribute Value Dependencies form will display the Attribute Values for the dependent Attribute Type (entered in the 'Depends on' field of the Attributes Type form). The Default Value is set in the drop down lists. The drop down lists reference the Values set against this Attribute Type.

In this way an association is made between this Attribute Type and the dependent Attribute Type such that a default value is entered for this Attribute Type when the associated dependent attribute Type has an Attribute Value entered. So that in the above example, if 'Carriageway Types' is selected as the Dependent Attribute Type, the value 'Dual (M) type', automatic entry of '70 MPH Max' will be made against the Attribute Type: 'Statutory Speed Limit'.

The lower part of the form specifies which Dependent Values are Allowable in each Default Value. Select a default value by clicking in the field, and then check the values, which will be allowable if the default value is to be changed. In addition the user may check the Warning column to have the system issue a warning when the dependency relationship is used.

**Note:** The Attribute Value drop downs will not be restricted by the relationships configured here. The Feature Attribute Dependent Update and Inventory Attribute Dependent Update utilities can be used to correct any inconsistencies highlighted by running the Attribute Dependency Exceptions reports.

**Smart Attributes**

(Extended Attributes & Smart Attributes modules)

The Smart Attribute Lookup can be used to produce Types, each with associated Values, not dissimilar to the Attribute Type library. This will allow another set of parameters to be stored, particularly for parameters where a longer Code is required (Smart Attribute Type codes can have up to 10 characters).

If only the Extended Attribute module is present, this will be all that is possible in the Smart Attribute Lookup.

If the Smart Attribute module is present, the Smart Attribute lookup can also be used to:

Set up a method of assigning Smart Attribute Values to Features based on the Text Attribute Values they carry.

Assign measurements to Values, and therefore to Features which acquire those Values.
Assign short codes to Values, which when linked to Feature Types will derive a Feature Type for a Feature based on the Value derived (or assigned) for the Smart Attribute.

Creating Smart Attribute Types

<table>
<thead>
<tr>
<th>Code</th>
<th>CC</th>
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</thead>
<tbody>
<tr>
<td>Name</td>
<td>Charging Code</td>
</tr>
<tr>
<td>Not Applicable Value</td>
<td>NA</td>
</tr>
<tr>
<td>Display Order</td>
<td></td>
</tr>
</tbody>
</table>

**Code:**
Up to four alphanumeric characters

**Description:**
Up to thirty characters

**Not Applicable Value:**
This value will be used on any Feature which has this Type applied and has not yet been assigned a Value. This has a default of NA, the description may be changed.

**Display Order:**
Affects the order in which the Type appears in the Feature tab. 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.

Applying Dependants

(Smart Attribute module only)

Smart Attribute Values can be derived from the combination of Text Attributes. The Text attributes that will make up the Smart Value are known as 'Dependants' and are added on the Dependents tab of the Smart Attribute form:
Smart Type: Entered from the Type tab. Not editable.

Attribute 1 - 5: Select the required Attributes from the drop down list in each field. The drop down lists reference the Attribute Type Lookup. You may enter up to 5 Attributes.

Measurement: Not applicable to Risk Assessment.

Adding Smart Attribute Values
Click on the ‘Value’ button to display the Smart Attribute Value form:

Code: Up to 10 alphanumeric characters
Description: Up to 30 characters.

Notes: A free text field

Measurement (Wattage): This field will only be present if: you have the Smart Attribute module, and you have selected a Measurement Type on the Dependants tab of the Smart Attribute form.

If you have entered a Measurement Type on the Dependants tab, then that Measurement Type is used here to title this field. You can then enter a measurement which will be associated with this Value, and entered on any Feature which acquires this Value.

Short Code: You may enter a Short Code (up to four characters) in this field, which can be used (with the Smart Attribute module) to set the Feature Type for a Feature that acquires this Smart Value.

Batch Button - Batch Create Smart Values

Use the Batch button to create Smart Attribute values from Feature Types.

Select a Feature Group from the drop down list. The drop down list references the Feature Group Lookup.

Click on OK to create one Smart Attribute Value for each of the Feature Types belonging in the selected Feature Group. Values will have the same code and description as the source Feature Type, and will have the Feature Type code entered into the Short Code field.

Detail Button - Smart Attribute Regimes

(Cyclic Regimes)

Smart Attribute Values may have Regimes associated with them such that the 'Create Jobs from Smart Attributes' utility may be used to create Jobs based on the Feature Smart Attribute Value.

To add Regimes to the currently displayed Smart Value, click on the 'Detail button:

Smart Value: Defaults from the current Smart Value and may not be edited.

Regime: Select from the pick list. The pick list references the Maintenance Regime library for all Regimes of the type: 'Cyclic'.

Notes: An optional free text field.

Setting Depend Values

Having defined the dependants, and set values you must now say which combinations of dependants (Text Attributes) will generate which Smart Values. This is done in a grid that allows user to specify a combinations of attributes and corresponding Smart Value.

To set up the grid, click on the 'Depend' button in the Smart Attribute form, the Smart Depend Value form is displayed:
The lower part of screen allows user to select attribute combinations that will have a corresponding Smart Value.

The drop-downs contain individual text attribute values that can be selected.

Use the Add button to add another combination of text attribute values.

The Smart Values can be entered with each row or once all the required rows of text attribute combination have been added. Use the Down Arrow key to move the highlight to the next row, and enter a Smart Value for that combination.

The Pick list against Smart Value references the Smart Value library.

Click Save to save the attribute combinations with Smart Value to the database. Note that only those rows from the grid will be saved which have a Smart Values against them and others will be lost on screen close. Save will also validate if any rows are duplicate and prompt for correcting it.

Delete button can be used to Delete a row from the grid.

Note: Features will not acquire Smart Values until the Allocate Smart Attribute utility has been run and saved.

Feature Types from Short Codes

(Smart Attribute module)

The Short Code (on the Smart Attribute Value form) provides a link with Feature Types. If the Short code matches a Feature Type code, then that Feature Type will be allocated to Features that acquire the Value.

The Short Code link can be set up in two ways:

A batch utility can be run which will incorporate Feature Types as Smart Attribute Values with the Feature Type code entered as the Smart Value Short Code.

Values can be manually added to the Smart Attribute, with the appropriate short code manually entered in the Short Code field.
The result is that when the "Allocate Smart Attribute" utility is run, and 'Derive Feature Type from Short Code' is checked in the filter, each Feature that acquires a Value that has Short Code entered, will also acquire the Feature Type that has the same code.

**To Batch Values from Feature Types:**

In the Smart Attribute Type form, click on the 'Values' button. The Smart Attribute Value form is displayed. In this form click on the 'Batch' button. The 'Create Values from Feature Types' filter is displayed. Enter (or select from the drop down) the Feature Group you want to use to create Values.

The drop down references the Feature Group lookup.

Click on OK. You will not see a preview. The filter will close returning you to the Smart Value form. Click on the 'Find' button to view the list of Values that have been created - one Value for each Feature Type in the Feature Group you selected in batch filter.

**To manually add Short Codes to Values:**

Select or create a Value in the Smart Value form. Enter in the Short Code field a code that matches the Feature Type code of the Feature Type you want to match this Value to.

You may do either of the above - or a combination of both. New batches are added to existing Values, they do not overwrite them.

Values, derived from batches, or manually entered, can be used as the results of Attribute combinations. See "To Set Up Smart Calculations" above. In this way, the Feature Type can be derived from the combination Text Attributes, through the Smart calculation.

**Note:** Features will not acquire a new Feature Type until the Allocate Smart Attribute utility has been run, with 'Derive Feature Type from Short Code' checked in the filter.

**Date Types**

(Extended Attributes)

Date Types can be set up to label the dates assigned to Features.

---

<table>
<thead>
<tr>
<th>Date Type Code</th>
<th>BAFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Type Name</td>
<td>Date of Field Inspection</td>
</tr>
<tr>
<td>Display Order</td>
<td>60</td>
</tr>
<tr>
<td>Device Data Key</td>
<td></td>
</tr>
</tbody>
</table>

Date Type Code: Up to four alphanumeric characters.

Date Type Name: Up to 30 characters.

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 date type as an attribute on their Survey tasks.
Note: Leaving this field blank will allow all users to view this date type in Con- firmConnect®.

Warranty Dates

(Warranty Dates)

Associating SORs with Date Types, and Date Types with Features allows Feature Dates to be updated on payment of works, and then tracks future works, issuing a warning if a new Job is about to be committed using an SOR that will affect an item still under Warranty.

Multiple Date Types can be linked to a single SOR Item in this case all of the dates will be updated.

Where a single Date Type is linked to multiple SOR Items, the Feature’s Date will be set to the date furthest in the future based on the follow up of each Date Type SOR Item.

When multiple Date Types appear on a Feature but not all of the linked SOR Items appear on the Payment Batch/Request, only the Dates linked to SOR Items on the Payment Batch/Request will be updated.

To associate SORs with a Date Type, click on the ‘SORs' button to display the Date Type SOR Items form.

The upper part of the form is completed from the Date Type and may not be edited (Date Type records may be scrolled through using the record counter buttons).

The centre pane displays the SORs associated with the Date Type, together with the expiry period of the warranty on work specified by the SOR Item.

The lower part of the form is used to add or edit SOR Items.

SOR Item: Enter or Select from the pick list. The pick list references SORs in the SOR Item library.
Full Description: From the SOR Item - may not be edited.

Expiry Period: Select the expiry period for the warranty from the pick list. The pick list references the Follow Up lookup library.

The number of days is displayed in the right-hand field. These are the number of days that will be added to the completion date of a Job using this SOR item on a Feature carrying this Date Type.

Warranty Item: If this is checked then the item will trigger a warning when committing a Job, adding the Job to a Payment Request or checking a Payment Request.

If not enabled then no warning is issued.

Note: The Feature Date is always updated from the Job completion date even with the Warranty Item flag being inactive.

General Notes on Warranty Date Type

A particular SOR Item may be linked to many Date Types. When a Job containing one of these Items is completed, the Date Type for the Feature will be updated accordingly.

Where Features are being replaced within the Warranty, it may not be appropriate to update the Warranty date. In this scenario, a different SOR Item could be used, that isn't linked to the Date Type in question.

These dates are displayed in the same way as other Feature Dates, therefore the description needs to make clear which dates are Warranty dates, which are updating for another reason (expected failure of component, for instance), and which are unlinked Date Types.

Note: Although the Date is set with reference to the Job Completion date, the Feature Date will not be updated until the Job is on a Committed Payment Batch. This is to allow intervention should the Contractor attempt to make an erroneous claim for replacement of an item that is already under Warranty, before the Feature is updated.

Activity Class

(Activity Log module)

Activity Classes group Activities for reporting purposes (reporting is by Activity Class)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFE2</td>
<td>Essential work within 2 days</td>
</tr>
</tbody>
</table>

Code: Up to four alphanumeric characters.

Description: Up to 30 characters.
Survey Type

Survey Type defines the types of Survey that will be imported into Confirm PMS. From this screen the Survey Name, Detail Level, etc. can be defined as well as the Feature Groups (i.e. Carriageway bituminous, Footway flagged etc.) to which the Survey applies and the Observation Types that the Survey can contain.

(Traffic Count Data module)

Where the Traffic Count Data module is present, Traffic Count Survey Types can be created and their Time Slot Levels and Attribute Type (e.g. Vehicle Type) can be selected.

<table>
<thead>
<tr>
<th>Code:</th>
<th>A unique code of up to 4 alpha/numeric characters.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version:</td>
<td>A 4 digit number. The same Survey Type may exist with different version numbers.</td>
</tr>
<tr>
<td>Name:</td>
<td>A 30 character description as appropriate for each Survey Type.</td>
</tr>
<tr>
<td>Detail Level:</td>
<td>The Detail Level is chosen from the dropdown list. This indicates the level of detail that this Survey produces. The entries are for information only. The options are Coarse and Detailed.</td>
</tr>
<tr>
<td>Dead:</td>
<td>This checkbox is used to mark the Survey Type as no longer live or in use. The details remain held on the Database and the Survey Type can be made live by 'unmarking' the checkbox.</td>
</tr>
<tr>
<td>Source Type:</td>
<td>The Source Type is chosen from the dropdown list. This defines the source of the Survey data. This is for information purposes only. The options are:</td>
</tr>
<tr>
<td></td>
<td>• Visual</td>
</tr>
<tr>
<td></td>
<td>• Machine Based</td>
</tr>
<tr>
<td></td>
<td>• Aggregated</td>
</tr>
<tr>
<td></td>
<td>• Traffic Count (only available when the Traffic Count Data module is present.)</td>
</tr>
</tbody>
</table>
Trim Obs.: This checkbox is used to indicate if Observations that extend past the end of a
Section will be trimmed.

Time Slot Level: (Traffic Count Data module)
Time Slot Level is only enabled when the Source Type is set to Traffic Count.
Select from the drop down list the Time Slot Level that applies to the Survey
Type. Time Slot Level is a mandatory field and determines which Time Slots are
displayed against a Traffic Count Survey.
The Time Slot Level cannot be edited for Survey Types which have Traffic Count Surveys created against them.

Aggr. Slot Level: (Traffic Count Data module)
Aggr. Slot Level is only enabled when the Source Type is set to Traffic Count
and the Time Slot Level field has been populated.
Optionally select from the drop list the Time Slot Level that will be used to calcu-
late the aggregate Time Slots for this Survey Type. The Values of the aggregate
Time Slots are calculated by adding the Values of the Time Slots from the primary
Time Slot Level that fall within the Start Time and End Time of the aggregate
Time Slot.
It is not possible to select the same Time Slot Level record in both the Time Slot
Level field and the Aggr. Slot Level field.
The Aggr. Slot Level cannot be edited for Survey Types which have Traffic Count Surveys created against them.

Attribute Type: (Traffic Count Data module)
Attribute Type is only enabled when the Source Type is set to Traffic Count.
Select from the drop down list the Attribute Type that applies to the Survey Type.
Attribute Type is an optional field and determines whether a Traffic Count Survey
is broken down by Attribute Type (e.g. Vehicle Type) and Time Slot, or just by
Time Slot.
Attribute Type cannot be edited for Survey Types which have Traffic Count Sur-
veys created against them.

Absolute Length Tolerance: This defines how much of a difference between imported Survey data lengths
and actual Section lengths will be accepted (the units are defined in terms of the
Section measurement type).

Percent Length Tolerance: This defines how much of a difference between imported Survey data lengths
and actual Section lengths will be accepted. The value is entered as a percentage
of the Section length.

**Time Slot Level**

(Traffic Count Data module)
A Time Slot Level allows Time Slots to be grouped together and when selected on a Survey Type
determines which Time Slots are displayed against a Traffic Count Survey.
Asset Register

Name: A 40 character name or description as appropriate for each Time Slot Level.

Notes: A free form text field used for storing notes about the Time Slot Level.

Dead: Tick this to prevent this Time Slot Level from being used for new Survey Types.

The Time Slots section displays all the Time Slots against the selected Time Slot Level. The Time Slots will be sorted on the basis of the Start Time and End Time of the Time Slots. Click on the 'Detail' button to add and amend Time Slots.

Time Slot
(Traffic Count Data module)

Time Slots define the time period at which Count data is collected. The Time Slot screen can be used to add and amend Time Slots against a Time Slot Level.

Time Slot Level
Displays the parent Time Slot Level to which this Time Slot belongs.

Time Slot Name: A 30 character name or description as appropriate for each Time Slot. This cannot be changed once saved.

Start Time: Select the Start Time of the Time Slot.
End Time: Select the End Time of the Time Slot.

Duration: Displays the duration of the Time Slot on the basis of the Start Time and End Time.

Notes: A free form text field used for storing notes about the Time Slot.

Dead: Tick this to prevent this Time Slot from being available for new Traffic Count Surveys.

Traffic Count Rule Set
(Traffic Count Data module)

A Traffic Count Rule Set contains the Factors and Indices used to convert Traffic Count Data, recorded on a particular day of a particular month, to standardised values comparable with those recorded on other days and/or in other months.

This Lookup allows several Traffic Count Rule Sets to be maintained so that the Factors and Indices used historically can be stored after revised Versions are introduced.
Code: A 4 character code to identify the Traffic Count Rule Set.

Version: Use this to differentiate between two versions of a Traffic Count Rule Set where the Code is the same.

Dead: Tick this to prevent this Traffic Count Rule Set from being used.

Name: A 30 character name or description as appropriate for each Traffic Count Rule Set.

Notes: A free form text field used for storing notes about the Traffic Count Rule Set.

Each Traffic Count Rule Set will have values for each of the twelve months of the year. The lower portion of the screen lists the months. When one is selected the values specific to that month can be viewed and edited.

Month: The month currently being viewed.

Index: The value used to convert Traffic Count Data for the current month to a standardised value for that year.

5 Day Factors: The values used to convert Traffic Count Data for a specific day (Monday to Friday) to a standardised Weekday value.

7 Day Factors: The values used to convert Traffic Count Data for a specific day (Monday to Sunday) to a standardised value for any day including Weekends. The 'Saturday/Sunday' Factor is only applied when Traffic Count Data exists for both Weekend days.

16:24 Hour Count: The values used to convert a 16 hour Average Count value to a 24 hour Average Count value where its value is blank.

Feature System Settings

The Feature System settings allow the defaults for some of the Feature fields to be altered.
Whole Site Feature Type: Enter the Feature Type that has been used for the Whole Site Feature.

**Note:** The whole site feature is a plot - usually numbered 9999 - which represents the whole of the Site. It is used to enable work or valuations to be carried out on the whole Site rather than to one individual Feature.

Unique Feature Ids: Check this to set the System to refuse duplicate entries in the Feature ID field.

Protect Existing Feature Ids: Check this to make the Feature ID field un-editable once a Feature ID has been entered and the Feature record saved.

Protect Feature Additional Data: If this is checked Confirm will disable the following fields on the Feature, and Feature Details screens.

- Ward
- Area
- Cost Code
- Classification
- Customer
- Contract Area

It will also update the above list of fields on a Site's Features if the current values match when changed. This setting will also update the Road Status on a Site's Interest if it matches the Classification on the Site and that value is then changed on the Site.

Always Update Feature from Site: When checked, Confirm will always update the fields mentioned above if any of them are changed on a Site. This update will occur regardless of whether the Site and Feature values are the same or not.

**Note:** If the 'Update Sites' flag is used with any of the batch updating tools, the changes will not be cascaded back to the Features.
Enable Feature Group Security: Check this to enable Action Officers to be designated Feature Groups. See Action Officer - Specialists for more details.

Asset Maintenance\Action Officer - Specialist

Allow Multiple Proposed Activities: (Activity Log module)
Check this to enable several proposed Activities per Activity Class to be stored against a Feature.

Note: If the setting is unchecked after having been checked (i.e. to prevent multiple proposed activities) all but the latest proposed activity is set to 'Cancelled'.

Plot Number Range From / To: Supply a range of numbers which will be used to set the Plot Number for a Feature being created if there is no range specified on the Feature Group.

Confirm will choose the first available number in the Site, in the specified range. The range can therefore include numbers already used.

Plot Number Increment: Enter here the number by which Plot Numbers are to be incremented when assigning numbers to duplicated incoming Features.

Feature Display Order Expression: You may specify the Feature sort for lookup lists accessed from Feature pick buttons. You may enter an expression, or use the Expression dialog to build an expression.

Features in pick-list lookups will display in the stated order (within each Site). Features with the same value as the expression are sorted by Plot Number. The expression could be a single column (e.g. the Feature Type) or something computed from multiple columns (e.g. the first character of the Feature Id plus the Start Date).

You may enter an expression, or click on the pick button to display the Expression dialog where an expression may be built:
Double click on Functions in the Function list, and Columns in the Columns list, to build up an Expression in the Expression field. You may also directly edit the Expression, and add operators from the buttons on the left-hand side.

Click on OK to return the Feature Display Order Expression field.

Maximum Size for Identification Image

The Feature screen will show an Identification Image, selected from the Document Links attached to a Feature, if this functionality has been activated for the Feature Group.

This setting allows a limit to be set on the largest size of file that will be considered, to prevent performance issues with large files.

See Feature Identification Image on page 9 for more information.

Create Feature Type:

Select from:

'None' - No Feature Type will be created to match the Feature Group being created.

'Assets Only' - A new Feature Type, with a matching Code and Description, will be created when a Feature Group is created in the main Feature Group form.

'Inventory Only' - A new Feature Type, with a matching Code and Description, will be created when a new Inventory Feature Group is created in the Inventory Feature Groups form. This will be set by default.

'All' - A new Feature Type, with a matching Code and Description, will be created when a new Feature Group, or a new Inventory Feature Group is created.

Show Attributes in Inventory Labels:

(Inventory module)

Where Inventory items are stored on the inventory tab of the Feature form, and the Inventory Items vary by attribute, you may select the format of the Item label (viewed in the left-hand pane of the Inventory tab). Select from:

'Name' - Inventory Items that Vary by Attribute will be labelled with the Attribute Value Code.

'Code' - Inventory Items that Vary by Attribute will be labelled with the Attribute Value Name.

Display Asset No. at Start of:

ConfirmConnect® only:

When Features are displayed on a mobile device the location of the Plot Number can be configured. When this setting is unchecked the Feature will be displayed in the following format:

Feature_ID Feature_Type [Plot_Number]

When disabled Features will be displayed in the following format:

[Plot_Number] Feature_ID Feature_Type.

Traffic Count Type:

Specify the Attribute Type which will be used to identify whether a Traffic Count Feature should not have Factors applied to it's Count Data by the Traffic Count Summary Report.

Traffic Count Type Continuous Value:

Specify an Attribute Value from the Attribute Type selected in the Traffic Count Type setting. This setting is mandatory if the Traffic Count Type setting has been specified.
If a Feature has an Attribute Value which matches the Traffic Count Type Continuous Value setting, then the Traffic Count Summary Report will not apply Factors to the Feature's Traffic Count Data.

IoT Device Id Attribute Type

Specify a Text Attribute Type which will be used to capture IoT Device Id in ConfirmConnect® Asset Survey.

On Asset Survey Complete with this attribute, if IoT device provisioning is not successful in the Confirm IoT cloud platform, the attribute value in the Confirm feature will be appended by the provisioning failure message like 'IoT device not provisioned'. If successfully provisioned via Asset Survey in ConfirmConnect, the attribute value will contain only the IoT device Id.

**Note:** For ConfirmConnect to be able to validate this attribute on the Confirm IoT cloud platform, following system settings need to be configured in the Confirm database by the Confirm system administrator:

- 'THINGS_API_URL' - URL of the Confirm IoT cloud platform.
- 'THINGS_API_REGION' - Region of the Confirm IoT cloud platform.
- 'THINGS_API_ACCESS_KEY' - User Id to access the Confirm IoT cloud platform.
- 'THINGS_API_SECRET' - User password to access the Confirm IoT cloud platform.

**Feature Seed Numbers**

Seed numbers are set within each Work Group for:

- Features
- Connectivity
- Observation Types

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

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.

![Work Group Feature Seed Numbers](image)

**Work Group:** Enter a Work Group Code, or use the 'Find' button to recall all Work Groups.

**System Administration\Security\Work Groups**
Name: Will be automatically entered when a Work Group Code is selected.

Feature: Features are internally numbered from these Seed Numbers when they are entered, or imported, into Confir. The number allocated may also be used for the Central Asset Id field of the Feature if no alternative is available. See Central Asset Id Seed Numbers for full details.

Node: Each connection that is established between one Feature and another has a Seed Number allocated. These are not seen on the Feature Connection form. Enter the number ranges for this Work Group.

Observation Type: Observation Types are numbered from these Seed Numbers when they are created in the Observation Type lookup. The numbers are not seen in the Observation Type form. Enter the number ranges for this Work Group.

Central Asset ID System Settings

![Central Asset ID System Settings](image)

The format specified on this screen is applied to a number determined from Central Asset Id Seed Numbers to generate the Central Asset Id of a new Feature. See Central Asset Id Seed Numbers for full details.

Permissible characters in the format string include letters, numbers, and forward slashes '/'. Do not use backward slashes '\'.

The format string should contain a special placeholder that will be replaced with the next available Central Asset Seed Number as specified on the Central Asset Id Seed Numbers screen when a new Asset is created.

This placeholder consists of a run of hashes '#' or zeros, and its length defines how many digits will be used when building the Asset ID. The Asset ID will be padded with leading zeros as required.

For example, with a format of ABC/########0/45 and a seed number of 12 will generate an Asset ID of ABC/00000012/45.

Central Asset ID Seed Numbers

Each Feature in the system is allocated a Central Asset Id. The Seed Numbers defined on this screen are used to allocated a Central Asset Id to new Features where none is specified by the User. The next number is generated from the Seed Numbers and a format is then applied to it as defined in Central Asset Id System Settings. If no Central Asset Id Seed Numbers are set, the Central Asset Id is automatically set the same as the Feature's internal number (feature_key) with a format of '00000000' applied.
Work Group Code: Enter the code for an existing Work Group, or use the 'Find' button.

**System Administration\Security\Work Groups**

**Asset ID - This Range:**
- 'Current' - This will be zero when the seed numbers are first assigned. Change this to the first available number if the first range of numbers has been assigned to another Work Group.
- 'Maximum' - Set the final number in the range of numbers being assigned to this Work Group.

**Next Range:**
A second range of non-contiguous numbers may be assigned to this Work Group, at this stage or at a later date.

**Map Zoom Scale**

The Map Zoom Scale option allows users to create additional scales to be used with the Map.
FAQ

This section will cover some of the frequently asked questions in the Traffic Count module.

How To Configure Traffic Count

Please follow these steps for setting of Traffic Count Module.

Step 1 - Enabling the Traffic Count Module in System Registration

The Traffic Count Module can be turned on by enabling Module Number 4500 in Confirm.

Please contact Confirm for a new Access Code with the Traffic Count Module enabled.

Step 2 - User Security

Traffic Count Users will require the following permissions within the User Security screen:

- Feature
- Traffic Count Data (Security)
- Feature Lookups - Time Slot Level
- Feature Lookups - Survey Type
- Feature Lookups - Attribute Type
- Feature Lookups - Traffic Count Rule Set
- Feature Lookups - Feature System Settings
- Feature Lookups - Feature Group
- Feature Lookups - Feature Type
- Feature Imports - Import Data
- Feature Report - Traffic Count Data Report
- Feature Report - Traffic Count Summary Report
Step 3 - Create Attribute Types

The Traffic Count Module requires at least 2 Attribute Types to be configured. One Attribute Type is used to determine the Traffic Count Type being recorded on the Feature, and the second is used for storing Traffic Count Data for different Vehicle Types.

A) Traffic Count Type

From Asset Register - Feature Lookups - Attribute Type menu, open the Attribute Type lookup. Create an Attribute Type with the following values:

- **Attribute Type Code**: RT01
- **Description**: Tricycle
- **Not Applicable Value**: 1359 Not Specified
- **Display Order**: 10
- **Type**: Number
- **Decimal Places**: 2
- **Case**: Any
- **Maximum Width**: 0
- **Unit of Measure**: Percent
- **Proportional**: False

Ensure that the Type is selected as 'Pick List'.

Click on the 'Attr Value' button on the screen, and populate the Attribute Value screen as:

- **Attribute Value Code**: RT01
- **Description**: 1359 Tricycle
- **Not Applicable Value**: Not Specified
- **Display Order**: 10
- **Type**: Number
- **Decimal Places**: 2
- **Case**: Any
- **Maximum Width**: 0
- **Unit of Measure**: Percent
- **Proportional**: False

Confirm 156 of 166
Ensure that the Attribute Value 'Not Applicable' is marked as 'Inactive'.

**B) Vehicle Type**

From Asset Register - Feature Lookups - Attribute Type menu, open the Attribute Type lookup.

Create a new 'Pick List' Attribute Type called 'Vehicle Types'.

Click on the 'Attr Value' button on the screen, and populate the Attribute Value screen as:
Ensure that Attribute Value 'Not Applicable' is marked as 'Inactive'.

**Note:** Specify the Display Order in the order in which Vehicle Type values should appear in the Traffic Count Reports.

**Note:** To consolidate Traffic Count Data for groups of Vehicle Types (such as HCV > 3 Ton, HCV < 3 Ton could be consolidated under 'HCV') then specify the same External Reference for those Attribute Values.

**Step 4 - Set up Time Slot Levels and Time Slots**

From Asset Register - Feature Lookups - **Time Slot Level** menu, open the Time Slot Level lookup. Create one Time Slot Level called 'Hourly'. This Time Slot will be used to capture Traffic Count Data at hourly intervals. Click the 'Detail' button and create hourly Time Slots.
Create another Time Slot Level called 'Summary'. This Time Slot will be used to capture Traffic Count Data at aggregated intervals, such as 6am to 10pm. Click the 'Detail' button and create aggregate Time Slots. The Traffic Count Summary Report requires at least a 16 hour and 24 hour aggregate Time Slot.

**Step 5 - Create Traffic Count Survey Types**
From Asset Register - Feature Lookups - Survey Type menu, open the Survey Type lookup:

Create new Survey Types with a 'Source Type' of 'Traffic Count'.

The 'Aggr. Slot Level' field should be populated with the 'Summary' Time Slot Level created in Step 4.

The Attribute Type field should be left blank if the Survey Type will be used to capture Traffic Count Data at a level that is not to be broken down by Vehicle Type. If the Traffic Count Data is to be captured at a Vehicle Type level then specify the Attribute Type field. Select the Attribute Type created in the Step 3 (B).
Step 6 - Creating Feature Groups & Feature Types

From Asset Register - Feature Lookups - Feature Group menu, open the Feature Group lookup. Create a new Feature Group:

Please see the Survey Type screen for further details.
All Features that will be used to capture Traffic Count Data will use this Feature Group. Ensure that the Feature Group Class is selected as 'Discrete Asset'.

Click on the Attributes Tab and click the 'Detail' button. This will open the Feature Group Attribute Type screen. Select the Traffic Count Type Attribute Type created in Step 3 (A).

From Asset Register - Feature Lookups - Feature Type menu, open the Feature Type lookup. Create a new Feature Type:
Assign the Feature Group just created to this Feature Type.

**Step 7 - Creating Traffic Count Features**

Traffic Count Features for each direction on a Street should be created as a Feature in Confirm. To create a Traffic Count Feature open the Feature screen from Asset Register:

Populate the details for the Traffic Count Feature, including a unique Asset Id and use the Feature Type created in Step 6.

Click on the Attributes Tab and set the value for the Traffic Count Type Attribute.
Note: The Asset Id field is important for combining Traffic Count Data of Features. Please see the Traffic Count Data Report for further details.

Step 8 - Feature System Setting
There are 2 Feature System Settings related to the Traffic Count Module called Traffic Count Type and Traffic Count Type Continuous Value.

Please see the Feature System Setting screen for further details.

Step 9 - Traffic Count Rule Set
From Asset Register - Feature Lookups - **Traffic Count Rule Set** menu, open the Traffic Count Rule Set screen. Populate the fields with the corresponding Traffic Count Factors and Indices.

<table>
<thead>
<tr>
<th>Code</th>
<th>Version</th>
<th>1</th>
<th>Dead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>1.0000</td>
</tr>
<tr>
<td>February</td>
<td>1.0000</td>
</tr>
<tr>
<td>March</td>
<td>1.0000</td>
</tr>
<tr>
<td>April</td>
<td>1.0000</td>
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<tr>
<td>May</td>
<td>1.0000</td>
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<tr>
<td>June</td>
<td>1.0000</td>
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<tr>
<td>July</td>
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<tr>
<td>August</td>
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<td>October</td>
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<tr>
<td>November</td>
<td>1.0000</td>
</tr>
<tr>
<td>December</td>
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<table>
<thead>
<tr>
<th>Month</th>
<th>5 Day Factors</th>
<th>7 Day Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
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<td>1.0000</td>
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<td>Tuesday</td>
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<tr>
<td>Wednesday</td>
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<td>Thursday</td>
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<td>Friday</td>
<td>1.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Saturday/Sunday</td>
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</tr>
<tr>
<td>16:24 Hour Count</td>
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</tr>
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</table>

**Traffic Count**

- **Why is the Traffic Count Survey option disabled on the Feature Screen > Other button?**

  The Traffic Count Survey option is enabled only for the Discrete Features. The Traffic Count Survey option will be disabled for the Linear Features. For more information, please refer to Feature Group Class on Feature Group Lookup.

**Feature Group**

- **Why is there no option to Add a New Survey on the Traffic Count Survey screen?**

  The New button on the Traffic Count Survey screen is only enabled when the User has Add access to the Traffic Count Module. Please check the rights of the User from the User Security Lookup.

**User Security**

- **Why am I not able to edit / delete my Traffic Count Lookups (Survey Type, Time Slot, Time Slot Level, Attribute Type)?**
Lookups can only be edited / deleted up until they have Traffic Count Surveys or Count Data created against those values in Confirm. Once the Data against the Lookups has been entered the Lookups cannot be changed.

- **How can I change the Feature on an existing Traffic Count Survey?**
  
  It is not possible to change a Feature on an existing Traffic Count Survey. You need to create new Surveys on the desired Features.

- **Why is a Time Slot missing from the Traffic Count Survey screen?**
  
  The Traffic Count Survey screen only displays 'Live' Time Slots for entering Count Data. The Time Slots which are marked as 'Dead' might appear on the Traffic Count Survey screen if Count Data has previously been saved against it.

- **Why are there no Aggregate Time Slots displayed on the Traffic Count Data Report?**
  
  If the Aggregate Time Slots are not displayed on the Traffic Count Data Report, then please check:
  
  - There is an Aggregate Time Slot Level defined against the Survey Type.
  - The Dead flag on the Specified Aggregate Time Slots is not ticked.

- **Why is a Time Slot not included while calculating the Aggregated Value?**
  
  A Time Slot is not included while calculating the Aggregate Values if:
  
  - The Time Slot is marked as Dead.
  - The Time Slot is outside the Time range defined against the Aggregated Slot.

- **How are the Attributes Values displayed on the Traffic Count Data Report?**
  
  The Attribute Values are displayed on the basis of the Display Order specified against them on the Attribute Type Lookup. If the Display Order is not specified then the Values are displayed in alphabetical order.