

Dorset – Defect to PEM Link

Introduction

Dorset have new software for capturing defects, this data is then loaded into the EXOR system using the standard inspection loader.

Some of these defects are required to be associated with PEM records. Since the defect is not being generated via the PEM module (DOC0150), the standard functionality whereby the status of the PEM is updated as the status of the defect is changed, is lost.

It is requested that Bentley services deliver a solution that will, create the defect/PEM link and keep status of the PEM in sync with the defect.

Requirements:

- When a defect is created, a PEM ID can be held against the defect.
- When a defect is loaded into the system, if a PEM id is held against the defect, a link will be made between the defect and the PEM. The status of the PEM will be updated to “Defect Raised”
- As the status of the defect is changed the status of the work order will be updated accordingly, until the defect is “Completed” at which point the PEM status will updated to “Completed”. (a list of status codes for the defects and the corresponding PEM status codes will be required)

Specification

Metadata

It is proposed that the PEM ID is to be held in the Special Instruction field.

The id will be stored in the field in the following format PEMXXXXXX (PEM will not be case sensitive), where PEM is a marker which will be followed by a 6 digit pem id.

Defect Id	<input type="text"/>	Order By	<input type="text" value="Defect Id (Desc)"/>
Asset	<input type="text"/>		
Road Section	<input type="text"/>	XSP	<input type="text"/>
Road Desc	<input type="text"/>		
Location	<input type="text"/>		
Special Instr	<input type="text"/>		
Activity	<input type="text"/>	Start Chain	<input type="text"/>
		Inspector	<input type="text"/>
		Initiation Type	<input type="text"/>
		Priority	<input type="text"/>

Defect Pem Link Trigger/Procedure

A trigger will fire on **INSERT** of a new defect. This trigger will not interfere with the loading process it will only fire once a new defect has successfully been loaded.

If the special instruction field contains “PEM” the next 6 characters after the word PEM will be checked to see if they correspond to an existing PEM id.

If no corresponding PEM id exists the process stops.

If a PEM id exists, then an association will be made between the PEM and the defect.

The screenshot shows the 'ENQUIRIES (0 Actions Outstanding)' form. The top section contains fields for Id (16348), Status (RE), and Received. Below this are fields for Recorded By (SYS) and Responsibility Of (SYS), both pointing to SYSTEM ADMINISTRATOR. To the right, there are fields for Source (T), Admin Unit (WAR), and Telephone. A 'Navigator' button is also present. Below these fields are tabs for 'Enquiry Details', 'Further Details', 'Actions', 'Damage', 'Associations', and 'Items'. The 'Enquiry Details' tab is active, showing a table with columns 'Record Type', 'Record Id', and 'Record Name'. The first row is highlighted in yellow and contains 'Defects', '260', and '0600UW2303/00030, POTH, 16-MAR-11, OPP 12'.

Record Type	Record Id	Record Name
Defects	260	0600UW2303/00030, POTH, 16-MAR-11, OPP 12

The status of the PEM will be updated to “DEFECT RAISED”

The screenshot shows the 'ENQUIRIES (0 Actions Outstanding)' form with the status updated to 'DR' (Defect Raised). The Id field is now 16348. The Recorded By and Responsibility Of fields remain the same. The 'Further Details' tab is active, showing a 'Name' field with three input boxes.

Status	Changed By	Date / Time	Reason
DR	ATLAS	23-AUG-2011 20:12	Automatic Defect Raised. Referred to SYSTEM ADMINISTRATOR.
RE	ATLAS	08-JUL-2011 15:09	. Referred to SYSTEM ADMINISTRATOR.

The enquiry history will be updated to show the status change and the Reason will show “Automatic Defect Raised”

The screenshot shows the 'ENQUIRIES History' table. It has columns for Status, Changed By, Date / Time, and Reason. The first two rows are highlighted in yellow.

Status	Changed By	Date / Time	Reason
DR	ATLAS	23-AUG-2011 20:12	Automatic Defect Raised. Referred to SYSTEM ADMINISTRATOR.
RE	ATLAS	08-JUL-2011 15:09	. Referred to SYSTEM ADMINISTRATOR.

Defect Pem Link Trigger/Procedure

A trigger to fire on **UPDATE** of defect status column.

If the old defect status is not "CLOSED" and the special instruction field contains "PEM" the next 6 characters after the word PEM will be checked to see if they correspond to an existing PEM id, this value will be used to identify the associated PEM record, if no association is found then the process stops.

If an association is found then the new defect status code will be used to find the corresponding PEM status code. If the old PEM status is not "COMPLETED" then the PEM status code will be updated.

The enquiry history will be updated to show the status change and the Reason will show "Defect Status Changed"

Assumptions and Omissions

- The process will not notify the user if the Special Instructions field is populated with data that does not correspond to an existing PEM ID
- The association to a PEM will only occur at the initial creation of the defect, if the special instructions field is updated at a later date the automatic association will not take place
- It is assumed that there will only ever be one defect associated with a single PEM (both automatically and manually). The process will not stop this happening. If this happens then the PEM status could be influenced by multiple defects
- The status code synchronisation will only occur from Defect to PEM. If the PEM status is changed manually then unless the PEM status is "COMPLETED" the PEM status will be updated each time the defect status is changed, until the DEFECT is "CLOSED"