

TFL IM4 Certification Pods

Requested Changes

Functional Specification

**Version <0.50>**

**Document Version History**

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# About This Document

## Document Purpose

* This document describes the systems features and behavior allowing users to verify that the system will meet their needs while also containing sufficient detail for the subsequent design.
* This document describes WHAT the system should do; it makes no attempt to describe HOW this should be implemented.
* Operating constraints and assumptions that may affect the final solution will also be defined.

## Document Terminology

* The following abbreviations, terms and concepts are used in the document:

### Abbreviations

|  |  |
| --- | --- |
| Abbreviation | Meaning, Definition |
| BSM | Bentley Solutions Methodology |
| IM4 | Information Manager Version 4 |
| TFL | Transport for London |
| WOWT | Work Order Work Trays |
| LoHAC |  |

### Terms and Concepts

|  |  |
| --- | --- |
| Term, Concept | Meaning, Definition |
| System | Physical (hardware) and logical (software) environment, required for the solution to operate, including the solution itself |
| project | Unless explicitly noted the word project refers to promis•e projects |
| Solution | Custom program developed in support of this Functional Specification |

# Solution Overview

## Solution Objectives

* To provide an Information Dashboard that will assist Budget Owners and the TFL Commercial to see the various statuses of applications.

## Solution Description

There are twos that aid certain users in view and changing applications with various attributes. The Application Review Pod allows the user to view and change some metadata for applications with payments that are awaiting review. The Application Status Pod lists all applications for payment along with their status.

# The Solution Environment

* This will be a hybrid between the stock IM4 environment and a customized Work Order Work Trays environment.

## The Physical Environment

## Constraints

* This program will be designed to run with Exor Products version 4.5.00

### Performance

* Performance can vary with several factors, including but not limited to Network speed and database retrieval performance.
* A design Decision was made during the original Pod development that Bentley believes will degrade performance as more data is obtained.

### Software and Data Interfaces

* It is expected that the Pod function similarly to existing WOWT pods.

### Security

* The solution will have access to the same data that the user has available in Exor. This includes limiting the output by Road groups and when applicable Budgets.

### Installation

* Installation may require administrative rights and will be delivered via an SQL installer. Once installed it is expected that CSL will configure the solution so that it can find any necessary product options.

# Functional Requirements

## Functionality Overview

The purpose of the solution is to make it easier for end users to complete their tasks. With these 2 dashboard Pods uses will be able to quickly see what items may need attention.

## Application Review

### Target Audience

This pod will mainly be used by TFL Budget Owners, Works Order Instructors and the TFL commercial team.

### Top Level Pod

* Visuals
  + Type
    - Stacked Bar Chart
  + X-Axis
    - Date Range (days since Invoice Status last updated)
      * 0-1
      * 2-7
      * >7
  + Y-Axis
    - Number Work orders matching the query Criteria and broken down and stacked by the following Invoice Status
      * Awaiting Review
        + REV
      * Apprvd Awaiting Com Review
        + APPCOMM
      * Rejct Awaiting Com Review
        + REJCOMM
      * Awaiting Review – Updated Application
        + REVUPD
      * Awaiting Review – New Comments
        + REVCOMM
      * Approved
        + APP
      * Rejected
        + REJ
      * Interim Rejected
        + INTREJ
      * Approved but un-reviewed
        + APPUN
  + Chart Size
    - Width 95%
    - Height 300
  + Display on Chart
    - Hint, Labels, major Ticks, minor ticks, show grid

### Pod Drill Down

* Columns

|  |  |
| --- | --- |
| **Name** | **Notes** |
| WO Number | Hover over shows WOL details, a click brings up Navigator |
| Edit | Brings up the Edit form |
| Map | Brings up a Map Form, showing the defect |
| Docs | Brings Up a list of Associated Documents |
| Invoice Status | WOR\_CHAR\_ATTRIB110 |
| Invoice Status Comment | WOR\_CHAR\_ATTRIB111 |
| Works Order Description |  |
| Previous Claim Amount | Previous woc\_claim\_value |
| New Claim Amount | Current woc\_claim\_value |
| Claim Comments |  |
| Budget Description |  |
| BOQ | Brings up the Bill of Quantities Dialog |
| Correct Area Of Work | WOR\_CHAR\_ATTRIB115 |
| Quality Of Work Ok | WOR\_CHAR\_ATTRIB116 |
| Correct Boq Uplifts | WOR\_CHAR\_ATTRIB70 |
| Before After Photos Present | WOR\_CHAR\_ATTRIB113 |
| Certification Comments | WOR\_CHAR\_ATTRIB114 |
| Reviewed By | User id in WOR\_NUM\_ATTRIB04 |

#### Edit Dialog

The edit dialog should allow the user to change the following information

* Invoice Status
* Drop Down List
* Invoice Comment
* Text Field
* Area/Quantity
* Drop Down List
* Quality of Work
* Drop Down List
* Before After Photos Present
* Drop Down List
* Correct BOQ Uplifts
* Drop Down List
* Certification Comment
* Text Field

All drop downs are limited to the valid values available in the domain where the various item was defined in the exor product.

### Query Conditions

* WOR\_DATE\_ATTRIB131 (WOR\_CHAR\_ATTRIB110 last updated date)
* Is not null
* WOR\_CHAR\_ATTRIB110
* In
* 'REV'
* 'REVUPD'
* 'REVCOMM'
* 'APPCOMM'
* 'APP'
* 'REJCOMM'
* 'REJ'
* 'INTREJ'
* 'APPUN'
* Element is Limited by define road groups, pod\_nm\_element\_security
* Budget is Limited by defined groups, pod\_budget\_security

#### Query-Conditions Request Change

A change has been requested to also limit the display of item with a particular budget code.

This Pod should exclude items with a budget code in the following table Code Budget Description

|  |  |
| --- | --- |
| Budget Code | Description |
| RA0999 | NE Reactive Activity Lump Sum Defect Rectification |
| RA1099 | NW Reactive Activity Lump Sum Defect Rectification |
| RA1199 | CE Reactive Activity Lump Sum Defect Rectification |
| RA1299 | SO Reactive Activity Lump Sum Defect Rectification |

### Special Note

A design decision to use WOR\_DATE\_ATTRIB131 for a filtered date may cause the performance to degrade over time. If this occurs an index may be added to this field, however, this table had many indexes on it and adding more could reduce overall system performance. Other options are available but are outside the current scope of this document.

## Application Status

### Target Audience

This pod will mainly be used by a LoHAC Contractor user to review the status of a payment application submitted.

### Top Level Pod

* Visuals
  + Type
    - Stacked Bar Chart
  + X-Axis
    - Date Range (days since Invoice Status last updated)
      * 0-1
      * 2-7
      * >7
  + Y-Axis
    - Number Work orders matching the query Criteria and broken down and stacked by the following Invoice Status
      * Awaiting Review
        + REV
      * Apprvd Awaiting Com Review
        + APPCOMM
      * Rejct Awaiting Com Review
        + REJCOMM
      * Awaiting Review – Updated Application
        + REVUPD
      * Awaiting Review – New Comments
        + REVCOMM
      * Approved
        + APP
      * Rejected
        + REJ
      * Interim Rejected
        + INTREJ
      * Approved but un-reviewed
        + APPUN
  + Chart Size
    - Width 95%
    - Height 300
  + Display on Chart
    - Hint, Labels, major Ticks, minor ticks, show grid

### Pod Drill Down

* Columns

|  |  |
| --- | --- |
| **Name** | **Notes** |
| WO Number | Hover over shows WOL details, a click brings up Navigator |
| Map | Brings up a Map Form, showing the defect |
| Docs | Brings Up a list of Associated Documents |
| Invoice Status | WOR\_CHAR\_ATTRIB110 |
| Invoice Status Comment | WOR\_CHAR\_ATTRIB111 |
| Works Order Description |  |
| Previous Claim Amount | Previous woc\_claim\_value |
| New Claim Amount | Current woc\_claim\_value |
| Claim Comments |  |
| Budget Description |  |
| BOQ | Brings up the Bill of Quantities Dialog |
| Correct Area Of Work | WOR\_CHAR\_ATTRIB115 |
| Quality Of Work Ok | WOR\_CHAR\_ATTRIB116 |
| Correct Boq Uplifts | WOR\_CHAR\_ATTRIB70 |
| Before After Photos Present | WOR\_CHAR\_ATTRIB113 |
| Certification Comments | WOR\_CHAR\_ATTRIB114 |
| Reviewed By | User id in WOR\_NUM\_ATTRIB04 |

### Query Conditions

* WOR\_DATE\_ATTRIB131 (WOR\_CHAR\_ATTRIB110 last updated date)
* Is not null
* WOR\_CHAR\_ATTRIB110
* In
* 'REV'
* 'REVUPD'
* 'REVCOMM'
* 'APPCOMM'
* 'APP'
* 'REJCOMM'
* 'REJ'
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### Special Note

A design decision to use WOR\_DATE\_ATTRIB131 for a filtered date may cause the performance to degrade over time. If this occurs an index may be added to this field, however, this table had many indexes on it and adding more could reduce overall system performance. Other options are available but are outside the current scope of this document.

# Acceptance Criteria

Capita Symonds will be given 15 days (the “test period”) to verify the functionality of the updated solution and document any defects noted against these specifications. Any defect found needs to be classified into the follow categories:

|  |  |
| --- | --- |
| Priority | Description |
| 1 – Critical | * Problem causes loss of data, data corruption, or prohibits productive execution of the product. * No workaround available. * Production release would be held for this problem. |
| 2 – Major | * The documented use of a command fails. * Production release would be held for this problem. |
| 3 – Average | * The documented use of a command fails but a reasonable workaround is available to continue working productively. * Production release might be held for this problem. |
| 4 – Minor | * The problem impacts but does not prohibit use of the solution. * A simple workaround is available or the function is not a major requirement. |
| 5 – Enhancement | * Suggested improvement to solution that is outside the scope of this project |

* After a period of 15 days, and no Priority 1 or Priority 2 defects exist, then Acceptance is assumed
* Use of solution in a production environment constitutes acceptance, even if there are open defects.
* Capita Symonds’s failure to provide documented defects to Bentley within the test period constitutes acceptance.

Acceptance Checklist:

* For the update, the solution filters the excluded budget codes.

# Assumptions

* Both Pods are currently working as expected.
* Capita Symonds will input test data to develop against
* Capita Symonds will have a representative dataset in the test system to be able to gauge the pods proformance.