

SECTION 1. CHANGES IN V1.4

Section 1.1. ABOUT THIS DOCUMENT

1.1.1. Purpose

This document provides a brief overview of the changes made between V1.3 and V1.4 of hub2, along with where further details of each change can be found within the updated functional specification, in addition to a listing of completed bug fixes and outstanding known issues.

Section 1.2. FIXED ISSUES

The following are a list of issues reported in previously releases that have been fixed in v1.~~2~~4 of hub2.

1.2.1. Fixed Issues

Case	Title [sic]	Details
47682	'Drawing Type – Wrong Header'	The header on the Drawing Type Add and Edit page was corrected from "Activity" to "Drawing Type" .
47669	Import – data is updated via Simulate import	The Tag Sub System, Procedure System and various MOC columns were incorrectly updated via Simulated imports.
47667	Digital Document – Signed Off Data displayed under incorrect column in PDF	In rare circumstances, a Digital Document could be created in such a way that the Sign Offs would display in the wrong order. This has now been fixed and Sign Offs always appear under the correct header.
47087	Azure Redis Cache fails to reconnect automatically	Distributed caching is used as part of the hub2 solution to allow repeatedly accessed data to be retrieved more quickly. Automatic reconnection has been added to facilitate recovery should cache failure occur.
47747	Admin – Deleting Level A Aliases	When attempting to delete an Alias from the Level A admin screen, the screen does not update and the aliases are not deleted. This has now been fixed.
47727	Tagged Item – Incorrect Tag Type for new Tagged Items	When creating a new Tagged Item the Type could occasionally be set incorrectly. This has been corrected.

Section 1.3. ~~OUTSTANDING KNOWN ISSUES~~

A full list of "Known Issues" can be found at <https://qedi-gotechnology.github.io/>. ~~The currently list of outstanding issues can be found here: <https://qed-manuscript.com/f/filters/844/Known-Issues>~~

Section 1.4. FEATURES

The following functionality has been added in v1.4.

Items listed under **Technical** should have no impact on functionality and therefore are not described in this document, have no further details added in this document.

The items under **Functional** change or add functionality to hub2; for each, a brief description of this change is given is provided, along with details on where to find further information in the Functional Specification for this version.

Technical

- MVC Code Split out to allow reused in qedID
- Reports: Repeated Code
- Remove Punch List Items from Level D Service

Functional

- API: Additional Tables
- Home Screen – Graphical Dashboard
- Digital Documents: Table Bookmarks
- Digital Documents: Editable Header Fields
- Digital Documents: Step Mapping
- Piping Fields
- Custom Fields: Reporting
- Completion Grid

1.4.1.API

Full Details in Swagger API Specification, and supporting document

An API has been added to hub2 to allow data in Tagged Items, all Taggable Items, Tag ITR, Tag PWL, Tag Sub System, and Loop Tables to be Read, Created, Updated and Deleted. The details of the API endpoints are published in OpenAPI/Swagger format on each instance at the URI: /swagger/v1/swagger.json, and in a user-friendly format at /swagger. While Swagger provides most of the functional documentation, an additional document will be available for end-users to explain how to authenticate with the API and perform basic queries.

1.4.2.Home Screen – Graphical Dashboard

Full Details in Section 8: Home Screen



Figure 1. Screenshot of the Front Page Graphical Dashboard

A front page Graphical Dashboard has been added with 6 charts to show progress of key areas which displays:

- Handover (by Type) Progress Arcs
 - Tag ITR (by Class) Progress Arcs
 - Punch List Item (by Category) Progress Arcs
 - MOC (by Type) Open/Closed Arcs
 - Key Handover (selectable by Administrator) Condensed Skyline
 - Key Handover (selectable by Administrator) Planned vs Actual S-Curve Chart
- There are four arc charts showing the progress of Handovers, Tag ITRs, Punch List Items and MOC Items. Then there is a Skyline Chart that shows the number of Handovers overdue and then the items that are due next. The final chart is a S-Curve Chart showing the Actual progress of Tag ITRs against the Planned progress arc Curve.

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1.4.3.Digital Documents: Table Bookmarks

Full Details in Section 34.4.1.1.b: Certification Output – Header Table Section

Preview:

Tag Drawings		
Drawing	Description	Area
Drawing Name	Drawing Description	Drawing Area Name

Actions	Label	Bookmark
<input type="checkbox"/> Remove	Tag Drawings	Tag Drawings

Action	Label	Bookmark
<input type="checkbox"/> Remove	Drawing	Drawing Name
<input type="checkbox"/> Remove	Description	Drawing Description
<input type="checkbox"/> Remove	Area	Drawing Area Name

Figure 2. Screenshot showing the new Table Bookmarks Section of Digital Documents

The Table Bookmarks introduced in v1.3 have been extended to now work with the Digital Documents and can be added via an additional section on the creation screen. ~~An additional section has been added to the Digital Document Template Creation screen that allows tables to be added.~~ This is done accomplished by first selecting the table to display and then setting up each column with the information required ~~for that column.~~

1.4.4. Digital Documents: Editable Header Fields

Full Details in Section 34.4.1.1.a: Certification Output – Header Section & Section 34.4.4: Certification Output – Document Task Link Add Edit

Repeat On New Page ☒

☐ Remove Row

Action	Label	Bookmark	Editable
<input type="checkbox"/> Remove	Tag	Tag Name	<input type="checkbox"/>
<input type="checkbox"/> Remove	Discipline	Tag Discipline Name	<input type="checkbox"/>

Figure 3. Screenshot with new Editable Checkbox Highlighted.

Along with displaying information from within hub2, In the Digital Document section, it is now possible to populate the headers with information from the related Tag or ITR such as Tag Name, Sub System, Discipline etc. It will now also be possible to add editable fields to the Header section and have the user complete information in this section. These sections will be editable on screen and in the Smart Pdf. of Digital Document with editable fields in which information can be entered directly. This is useful for Header information which may not be available at the time the Document is generated.

It is important to note that, at this stage, NB. Existing information cannot be edited and changes will only any information entered will be stored directly on the Digital Document and not imported into hub2 itself.

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1.4.5.Digital Documents: Step Mapping

Full Details in Section: 34.4.1.1.c – Certification Output – Task Section















	Number	Title Task	Task Type	Required	Task Links
 	1	Title First Task Checkbox only	Checkbox	<input checked="" type="checkbox"/>	 Add Link
 	2	Title (Optional) second comment only	Comment	<input checked="" type="checkbox"/>	 Add Link
 	3	Title (Optional) third Checkbox and comment	Checkbox Comment	<input checked="" type="checkbox"/>	 Add Link
 	4	Another title tester fourth long comment	Long Comment	<input checked="" type="checkbox"/>	 Add Link
 	5	Title (Optional) Task Table Configure Table	Table		

Figure 4. Screenshot highlighting the Task Links Button on the Digital Document Edit Page

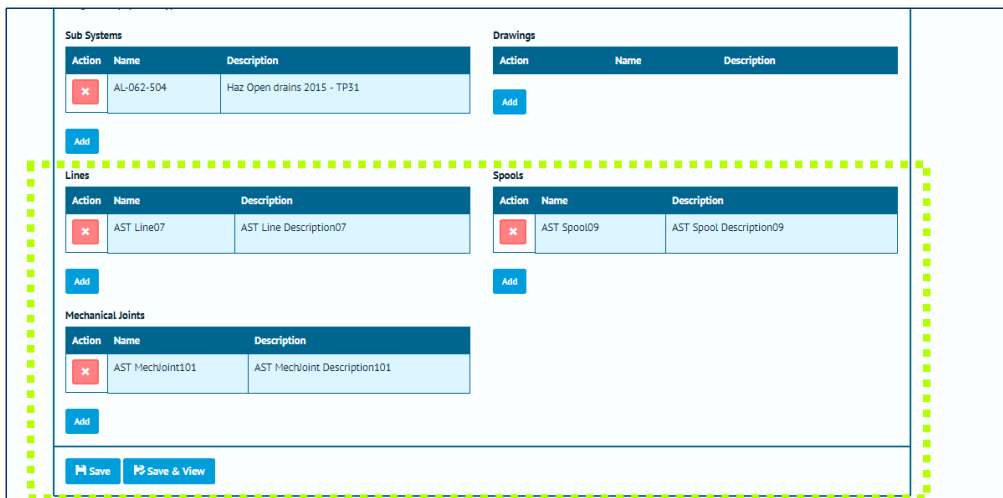
In the Digital Document Task section, it is now possible to add Task Links. A Task Link has a Source Task and a Target Task, which will be on different Digital Documents. If both Digital Documents are assigned to a Tag within the same Level E₇, then when the Source Task is completed, the Target Task will be auto populated with the same Task Result answers.

This allows the completion of one element of a document to count towards the completion of another, and can reduce any rework that is identified as unnecessary in completing multiple documents.

1.4.6. Piping Fields

Full Details in Section 27: Piping

Entity Description in: Section 27.3.2 – Test Pack Line, Section 27.3.3 – Test Pack Mechanical Joint and Section 27.3.4 – Test Pack Spool



The screenshot displays the Test Pack Edit Page interface. It features several sections for managing test pack components:

- Sub Systems:** A table with columns Action, Name, and Description. It contains one entry: AL-062-504, Haz Open drains 2015 - TP31.
- Drawings:** A table with columns Action, Name, and Description. It is currently empty.
- Lines:** A table with columns Action, Name, and Description. It contains one entry: AST Line07, AST Line Description07.
- Spools:** A table with columns Action, Name, and Description. It contains one entry: AST Spool09, AST Spool Description09.
- Mechanical Joints:** A table with columns Action, Name, and Description. It contains one entry: AST MechJoint101, AST MechJoint Description101.

Each table has an 'Add' button below it. At the bottom of the form, there are buttons for 'Save' and 'Save & View'.

Figure 5. Screenshot highlighting the Lines, Spools and Mechanical Joints on the Test Pack Edit Page

The Test Pack section has been extended with the ability to add information on the Spools, Lines and Mechanical Joints associated with the Test Pack. This information is also now available as Table Bookmarks for both the Digital Documents and the DOTX Templates.

1.4.7. Custom Fields: Reporting

Full Details in Section 39.4.3 – Reporting – Available Fields

The Custom Fields which can be added to Tagged Items and all Tag Extensions can now be added ~~to the Custom Summary and Detailed Reports. They can also be searched for on the Custom Tag Reports.~~ to the Custom Summary and Detailed Reports. They can also be searched for on the Custom Tag Reports. (and searched for) on both Detailed and Summary reports created by users.

1.4.8.Completion Grid

Full Details in Section 40: Completions Grid

Imports Ref Tables Tagged Items Certification Punch List Handovers Procedures Changes Preservation Documents Report Admin		AMECFW / qedi / Alpha / Accom / Refine	
Refit	42.5%	AL-045	83.54%
All Systems		Flash Gas Compression 2	
AL-046	86.67%	AL-048	75%
Oil Export Pumping And Cooling		Production Gas Scrubber	
AL-055	66.67%	AL-059	34.43%
Gas Re-injection		Produced Water 3	
AL-060	57.14%	AL-061	45.45%
Relief Headers And Flare		Closed Drains	
AL-062	80.43%	AL-067	54.29%
Hazardous Open Drains		Fuel Gas 2	
AL-069	34.48%	AL-070	21.43%
Potable Water		Seawater 2	
AL-072	56.25%	AL-074	12.66%
Cooling Medium		Fire Water	
AL-075	11.02%	AL-076	52.41%
Fire And Gas Detection		Chemical Injection	
AL-080	23.53%	AL-081	33.33%
Main Power Generation		HV Power Distribution	
AL-082	62.5%	AL-083	41.11%
LV Power Distribution		LV Power - Lighting & Small Power	
AL-084	20.91%	AL-085	26.65%
Emergency Power & Distribution		Emergency Power UPS	
AL-100	40.85%	AL-120	48.61%
Temporary Equipment		Integrated Control And Safety System	
AL-122	77.79%	AL-124	78.07%

Figure 6. Screenshot of the Completions Grid, showing a list of all Systems

A new Graphical Report known as the Completion Grid has been added to hub2.

When viewed that first the report shows the ITR progress as a % for the current Scope and all the Systems in the Scope-percentage for each System.

The report is interactive: Clicking on any of the Systems will show the progress of each Sub System under that System.

Clicking on any Sub System will then bring up a screen showing the progress of the ITRs, Punch List, MOCs and Handovers for that Sub System, with tabs to get all lists of all the Tag ITRs, Punch Lists and MOCs associated with the selected Sub System. The Charts and Breakdowns are also available at the System Level.