GoTechnology®
hub2
User Guide

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1. HELP!! What order do I load the data in? What does this table do?

Section 1.1. Load Order and Glossary

For information on the order to load information, and a description of each table, check the GoTechnology hub2 data dictionary at https://gotechnology.github.io/dd

Section 1.2. Revisiting your Training

To revisit your training just click on the eLearning link underneath the “?” at the top right of the screen.

Section 1.3. Misc. Recommendations

It’s recommended that Imports are kept at 20,000 rows or less per file for performance reasons.

2. About

2.1.1. Introduction

This user guide describes an introduction or reference guide for some of the more complex features of GoTechnology hub2; Wood’s next generation completions and commissioning management solution.

The document contains screen shots and information that were relevant at the time of release. As GoTechnology hub2 is a continuously developed product the actual appearance or function may differ from what is depicted.

In addition, some sections or operations shown may not be accessible due to permissions issues.

For the latest information on GoTechnology please visit http://qedi-gotechnology.github.io or contact commissioning.info@woodplc.com

2.1.2. Intended Audience

It’s expected that readers will have completed the required training courses, and understand the fundamental concepts and basic operations, before reading this document.

This guide is intended for authorised users only and should not be distributed without the express consent of Wood.
2.1.3. GoTechnology hub2

First released in October 2017, hub2 is the latest generation of Wood’s GoTechnology family of online, web-accessible completions and commissioning management solutions.

Intended as a replacement for all previous products within the range, hub2 delivers the facilities to track, record and report on details of equipment, certification, handovers, procedures, preservation routines and Job Card information, amongst others.

2.1.3.1. Access

Details of how to access GoTechnology hub2 will be provided separately. Please note: As hub2 is a primarily online solution, an internet connection and a modern, HTML5 compliant web browser are required.

2.1.4. Glossary of Terms / Listing of Information

At the end of this document is an abbreviated list of the information stored within hub2, where it can be viewed from, and which Level within the information hierarchy (described in 4 Levels below) it resides.

Important Note: This is not a complete listing and is intended for basic reference purposes to the most commonly used areas of GoTechnology hub2. Client, industry or process specific information types will be excluded for this reason.
3. UI

Let’s take a look at the User Interface (or UI) for hub2. This is the “look and feel” of the application: How information is displayed onscreen and how you interact with it.

Depending on which version of hub2, your preferences, permissions and configuration, and the device your viewing on, some elements may appear differently, or not at all.

If we apply some highlighting to some different elements on this screen we can cover a lot of the basic concepts within hub2, which follow all the way through the application.
<table>
<thead>
<tr>
<th>Colour</th>
<th>Location</th>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top of screen</td>
<td><img src="image" alt="Procedures" /></td>
<td>The top menu buttons are the key to navigating hub2. Clicking one of these buttons will open a drop-down menu with links to specific pages. This includes the button at the top right, which displays your name (or the name of whoever is currently logged in) and provides links to User preferences and options.</td>
</tr>
<tr>
<td></td>
<td>Top Right</td>
<td><img src="image" alt="Demo Site / qedi / Alpha / Accom" /></td>
<td>The navigation “breadcrumbs” show which Level A / Level B / Level C / Level D you’re currently logged in to. Click any of these elements will take you back to the Level select screen.</td>
</tr>
<tr>
<td>Area</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Right</td>
<td>The final breadcrumb element represents the Level E. Clicking this will provide a drop-down of other Level E’s within this Level D, allowing you to quickly switch between them.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search Header</td>
<td>A drop-down menu that provides the five most recent searches you’ve run, allowing you to re-run them easily.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lists any “Saved Searches” you have created via the “Save Search” button.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Various locations,</td>
<td>Buttons within hub2 have many purposes but are mainly used to trigger an action, whether it’s to start a search or import, add or delete an item, or, in the case of the button shown to the left, clear all the values from a form.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>throughout hub2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Near the top of the search</td>
<td>The quick search bar can be used to enter multiple search fields in one place.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>form</td>
<td>In addition, the drop-down arrow, when clicked, provides a list of field definitions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Various locations,</td>
<td>Input fields can be used to enter search terms or add data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>throughout hub2</td>
<td>This can be either typed directly, or in the case of dates, selected from a date picker.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>For “lookup” fields, the magnifying glass button on the right can be clicked to open a popup containing all the possible values that can be selected.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Alternatively, a value can be typed in directly as normal.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Required</td>
</tr>
<tr>
<td>Discipline</td>
<td>Required</td>
</tr>
</tbody>
</table>

Fields which are “Required” have the word *Required* shown when they are empty.

When a field is Required it means that it won’t be possible to add a new record if those fields are blank or contain invalid information (and hub2 will tell you if the information is invalid).
4. Levels

Within hub2 project information is stored in five connected levels. This might seem like a more complex approach than you’re used to before, but once we’ve explained it, you’ll understand how it’s easy to use, and will save time and improve consistency of data. Within the structure, inheritance is used: Information defined in the first level flows throw to the second, third, fourth and fifth levels, information in the second flows throws to the third, fourth and fifth level, and so on.

Within this document, we will refer to these levels as Level A, Level B, Level C, Level D and Level E, however they can be renamed by yourself or your hub2 administrator to use names that are much more relevant to your project or industry.

Here’s an example of how an instance of hub2 might be laid out. Don’t worry too much about the details at this stage, we’ll go into those later!

As you can see, in the above picture we have a fictional company named “Astro Works”, and a data structure that’s been designed in hub2 to best support their operations. This structure will allow the Astro Works teams to share the information they need, while making it clear who is working on what, and ensuring that any information is only available to the appropriate persons.

So how do we build up a structure like that, and what do these levels really represent? We’ll get into that in a second, but before we do, an important point.
Section 4.1. Thinking about Levels

When it comes time to build up our data within hub2, we start at the “top” of the data hierarchy (Level A) and work our way down from there.

4.1.1. Level A

As we know, Level A represents the “Company”, “Corporate” or “Global” level. It contains configuration options that will be utilised in every part of the world, in every industry, on every project and work scope the company does… Or at least that’s the idea! Of course, in reality this may not be practical, but we’ll discuss that later.

For now, let’s assume that there’s just one item in Level A representing the whole company. In our example case, that is Astro Works, our fictional space exploration organisation.

There’s no data stored at this level, but there are some options:

-Aliases

Aliases allow us to “rename” certain items on screen. As we’ve mentioned these can include the Levels themselves, as well as other items such as Certification Grouping. When we set an Alias for any field then the default name is replaced by the alias we’ve chosen.
In the above screenshot, the orange highlight shows that there are no Alias at present, just the “Add Alias” button. The purple highlight shows that the default “Level A” to “Level E” are shown.

Let’s rename those to some more friendly values.

Once we save we can see the menu has updated too.
4.1.2. Level B

Level B represents the first sub-division of the structure and is the first place we can actually store data. It’s usually used to represent a region, division or industry sector.

4.1.2.1. Information at Level B

The kind of information we store at this Level is very high level

Remember, any information set here will be used by the associated levels below:
In the above picture we can see our two Level B’s (which we’re calling “Regions”) **Astro Works Texas** and **Astro Works Florida**, containing different information (which is shown by having one in purple and one in orange).

The solid colour indicates where the information is set, with the outlining showing where the information is used or referenced from.

As you would expect from our previous explanations, Levels below, reference the information defined in those above (by now we’re hoping this is becoming painfully obvious, and even repetitive, to you.

### 4.1.3. Level C

Level C is usually used to represent a physical construction or geographic area in which multiple projects (which themselves have multiple scopes of work) are being (or will be) executed.

As such it contains a large amount of data, as well as a few key configuration options:

- Preservation Progress Method
- Preservation Window Before
- Preservation Window After

These are described in more detail, and in context, in 9 Preservation.

Let’s go back to our diagram and take a look at Level C in more detail.
Again, we can see here that each "Facility" has its own set of data.

The types of data (e.g., Area, Authorised Person, Attachment, Cable, and so on) stored at this Level stay the same, but the data itself can be different for each "Facility"...

...this means if we created Cape Canaveral Launch Site (which is a child of the AstroWorks Florida Level B "Region"), the ITR list would be empty until we added ITRs to it. However, the ITR Class would already be populated, as that is defined at Level R (which we have named "Region")

If we then created the Level C for Storage Warehouse, it’s ITR list would be empty, until we added ITRs there too. However, as it is also a child of Astro Works Florida, it would share the same ITR Class list as Cape Canaveral Launch Site.

This is because there is no transfer of data between levels (they're totally separate), only the ability for child Levels to reference the information in the parent.
Just to repeat our previous point once more, the information set at Level C, will be utilised by the levels below:

4.1.4. Level D

Level D is the “Project” level, and represents a grouping of work scopes (which are recorded at Level E). As such, there’s not too much data stored here and, aside from the logos which appear on reports and certification, only one setting:

- Punch List Item Auto Number – Set whether Punch List numbers are generated automatically, and any conventions/formats for that number.
As we know, the information at a higher Level is referenced by those beneath it. This time we’ll show the structure without highlighting. Can you imagine which Level E’s inherit from where?

We’re sure you figured it out – it’s just a case of tracing the lines.

4.1.5. Level E

Level E represents the scope of work – it’s where sign-offs are stored and progress is recorded.
Level E is the lowest level, so any of our Level E’s (or “Scopes” as we’ve aliased them) won’t affect anything other than themselves.
5. Permissions

Certain standard levels are provided in GoTechnology hub2, however we can also create Custom Permissions for you too.

Section 5.1. Standard User Levels

The following Standard User Levels are available within GoTechnology hub2:

NOTE: It is possible for you or your focal point to restrict sign-off by discipline (for example a Commissioning Tech that can only sign off Electrical Tag ITRs)

<table>
<thead>
<tr>
<th>User Level</th>
<th>Can Add:</th>
<th>Can Edit:</th>
<th>Can Delete:</th>
<th>Can Sign-off:</th>
<th>Special abilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin</td>
<td>All</td>
<td>All</td>
<td>All</td>
<td>All</td>
<td>Custom Fields, Digital Document Templates, Enter any name against Sign-Off Import</td>
</tr>
<tr>
<td>Commissioning Engineer</td>
<td>Attachments Procedures Punch Lists Tag ITRs</td>
<td>Procedures Tag ITRs Procedures Tag ITRs</td>
<td>All</td>
<td>Custom Fields, Digital Document Templates Import</td>
<td></td>
</tr>
<tr>
<td>Commissioning Technician</td>
<td>Attachments Punch Lists</td>
<td>None</td>
<td>None</td>
<td>Job Cards MOC Procedures Punch Lists Tag ITRs Tag PWLs Work Packs</td>
<td></td>
</tr>
<tr>
<td>Completions Engineer</td>
<td>All</td>
<td>All</td>
<td>All</td>
<td>All</td>
<td>Custom Fields, Digital Document Templates Import</td>
</tr>
<tr>
<td>Management</td>
<td>Attachments</td>
<td>None</td>
<td>None</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td>Operations Supervisor</td>
<td>Attachments Handovers Tags</td>
<td>Handovers Tags Handovers Tags</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Engineer</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>MOC</td>
<td></td>
</tr>
<tr>
<td>Role</td>
<td>Procedures</td>
<td>Punch Lists</td>
<td>Work Packs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>-------------</td>
<td>------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Read Only</strong></td>
<td>None</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Supervisor</strong></td>
<td>Punch Lists</td>
<td>None</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TA</strong></td>
<td>Attachments</td>
<td>None</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technician</strong></td>
<td>Attachments</td>
<td>None</td>
<td>Job Cards</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Punch Lists</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tag ITRs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tag PWLs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Work Packs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Work Pack Engineer</strong></td>
<td>Punch Lists</td>
<td>Tags</td>
<td>All</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tag ITRs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work Packs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 5.2. Custom User Levels

Permissions within GoTechnology hub2 have a high level of flexibility: Authorisation can be fine-tuned for almost every table, to specify if a User can Add, Update, Delete or even see it at all. There are also additional special permissions for certain tables, such as the ability to sign-off Tag ITRs or Tag PWLs.

If any customisation to roles or permissions are required, just ask!
6. Beyond Levels: The Extended Logical Structure of hub2

Now we know all about Levels, what’s stored there and how we can set up the right permissions, but what happens when we go **deeper**? How is information within a Level E structured to allow us to assign, progress and track Completions and Commissioning execution? The answer can be seen by delving into the “Scope” level and looking at what we call the “Extended Logical Structure”:

**GoTechnology hub2 Extended Logical Structure**
While this might seem complicated, the main principles are quite simple:

- We’re already familiar with Level A to E and what they represent.
- Work Packs and Activities are the next subdivision of data. Work Packs represent the physical documentation and Activities represent the effort involved in completing the work.
- When a Project is planned a Work Breakdown Structure is created, decomposing the overall Project (Level D in hub2 and Level 1 in most planning approaches) into two further levels: Scopes of Work (Level E in hub2, Level 2 in planning) and Work Pack or Activity (in hub2 we track both)
- Beneath this, comes Job Cards which represent both physical documentation and a planning activity.
- After this comes Tag ITRs (documentation) and Operations (planning activity)
- Finally we go a level beyond what a project plan would reasonably expect to capture, to the actual Task level of the Tag ITRs.

As you can see, hub2 captures quite a depth of information, allowing the status of entire facilities to be accurate down to the individual checkboxes being completed on a Tag ITR.

You can probably also see why we used A to E as the “behind the scenes” names of our Levels (and remember, you or your hub2 administrator can adjust the terminology to be relevant and easy to understand for your company) instead of 1 to 5.
7. Populating Data

Once permissions and levels are in place it’s time to start adding data. Depending on what level (and permissions) you have access to, as well as the way hub2 is set up for your company or project, the actual specifics of what you can and can’t change may vary, but we can cover the basic concepts involved.

There’s two ways to populate:

- On-Screen: Best for individual changes.
- Imports: Best for multiple changes

Section 7.1. Populating Reference Tables On-Screen

Reference Tables are the building blocks of hub2. Normally the information contained within the Reference Tables is simple, perhaps just a Name and a Description, but they exist to provide a library that the more complex elements can draw from, increasing consistency of data and reducing rework.

To make it easy to find the Reference Tables, they have their own tab on the top menu, and are listed second from the left, just after the Imports:

![Reference Tables Tab](Image)

If you have a look, you’ll see there’s quite a lot of them, however we don’t need to populate them all at the same time (or ever if they’re not required!) only the ones that we know, or that we need to move forward and set up the more complex entities.

As an example, let’s look at what Reference Tables we need to add our first Tag.

Tags have a lot of fields, but only a few of them are **Required**.

For Tags the standard required fields (as of the time of writing – things do change!) are:

- Name
- Discipline
- Description
- Equipment Type
- Subsystem

And of those, Name and Description are not Reference Tables. Remember, as we described in the UI chapter, we can tell which fields are Required, and which are Reference Tables just by looking at the fields themselves:

**Required Fields**

When a field is Required it means that it won’t be possible to add a new record if those fields are blank or contain invalid information (and hub2 will tell you if the information is invalid).
Required fields have the word “Required” inside the text box when they are empty:

Reference Tables have a blue magnifying glass button at the right-hand side:

Clicking on this button will open a pop-up window, from which you can select the information you want, just by clicking on it:
In some pop-up windows (such as Subsystems) you can choose multiple values. In that case you click on the rows you want **then** click the add button:

If the pop-up window is blank, that means there is no data in the reference table:
If that’s the case, (or we just want to add in an additional value) we know we need to go into the reference table and add some values in! Just click on Reference Tables and select the appropriate choice (for this example we’ll use Disciplines).

Help! I can’t see the table I want!

If the table you need to populate isn’t in the list then you might not have access to it. Talk to your GoTechnology focal point about it.

If you are the GoTechnology focal point then get in touch with us instead! We’ll help figure it out.
Once we’ve chosen the table we can go ahead and add data in (provided we have the right permissions). If you can’t see an Add button then you need to get in touch with your focal point or with us to discuss.

You can click either Add button, they both do the same thing. We have them at the top and bottom because some of the pages are quite long, and it makes it a little easier to use.

Enter in a name and description and click Save & View.

Now we can go back to Tags and when we are adding or editing and we click on the Discipline popup button we’ll see our new “Example” discipline in the list.
Section 7.2. Using Imports and Exports

By now you’re a totally confident GoTechnology expert. You’ve completed all the required training and you’ve read this far into the User Guide! Well done! That means you probably know all about the imports, and some of this might be repeating the obvious. But there might just be a few tips and tricks you’re not aware of.

7.2.1. Downloading all blank templates

Let’s start at the beginning: Where do we go to get all the blank import templates? Simple: Go to Imports and click the “Download All Blank Templates” button:
That will download a zipped file with all the blank templates ready to be populated.

7.2.2. Import Templates

All the import templates for GoTechnology are simply spreadsheets and can be opened in Microsoft Excel or similar and they utilise coloured headings to convey information:

These colours are there to help you understand the nature of the fields. They’re only there to aid you, so changing them won’t make any difference.

But what do they mean?

<table>
<thead>
<tr>
<th>Heading Colour</th>
<th>Meaning</th>
<th>Can be removed?</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>Identifying</td>
<td>No</td>
<td>Uniquely identifies the record. There may be more than one Identifying field, meaning the record is identified by the combination of multiple fields.</td>
</tr>
<tr>
<td>Gold</td>
<td>Optional Identifying</td>
<td>Sometimes</td>
<td>Can be used as part of the identification for the field but if not then can be removed.</td>
</tr>
<tr>
<td>Blue</td>
<td>Required</td>
<td>Sometimes</td>
<td>Must be populated when new records are created. For existing records this can be removed.</td>
</tr>
<tr>
<td>White</td>
<td>Optional</td>
<td>Yes</td>
<td>Can be removed.</td>
</tr>
</tbody>
</table>

It might sound complicated but really, it’s not:
- When you're creating new records, you need at least the Orange and Blue fields.
- When you're updating existing records, you need at least the Orange fields.

That's it!

**Wait! What about the gold fields?!**

A gold field is an **optional identifier**. That means they're there to give you a way of differentiating two records that would otherwise seem identical.

Imagine it this way: Your name is John Smith and you've just joined a new company. Unfortunately, there's already a John Smith there. As a way of telling the difference people might start using your middle name too. It's an **optional identifier**. If there was only one John Smith it wouldn't be required, but as there are two it's useful to fill in.

This means that if we want to change an optional field such as Source Drawing we can remove the columns we don't need from the import sheet leaving just the identifying column and the column we want to change:

Not only does this make it easier to read, it's faster to import too!

You can also change the order of the columns, so Source Drawing comes first and then Name.

Don't try renaming the column names though; that won't work.
7.2.3. Import Types: Validate, Simulate and Full

You might have noticed that there are three different options when running an import:

- **Full**: This is a standard import. Use this when you want to load the contents of the spreadsheet into the database. You get a results file at the end telling you what worked and what didn’t.

- **Simulate**: Use this when you want to perform a “trial run”. It acts like an import but it doesn’t actually change anything: You’ll get the results file telling you what would happen, **but the data isn’t actually loaded into the database**. Think of it like a “what-if?” analysis, letting you catch any issues ahead of time.

- **Validate**: This performs very limited, very basic checks: Is this a spreadsheet? Does it have headers that make sense? Are dates in the right format? Do any of the fields contain too many characters? The difference with this and Simulate are that validate does not check the database.

---

**I don’t get the difference between Simulate and Validate!**

*Simulate* performs everything **except** actually adding the data to the database, that means it checks the basic rules and whether the required information exists in the database. *Validate* **only** checks the basic rules.

That means if you try to assign a Tag to a Subsystem that doesn’t exist (let’s call it “ASubSystemThatHasNotBeenAdded”) a Validate import will say that’s OK: The name of the Subsystem is less than 50 characters.

On the other hand, if you ran a “Simulate” (or Full) the results will say the record is invalid with the reason “ASubSystemThatDoesNotExist is not a valid Sub System”

**You don’t have to run Validate or Simulate. They’re just there to help you – if you feel confident you can run a Full Import straight away** (although personally we always like to run a Simulate first... We’re the cautious type!)
<table>
<thead>
<tr>
<th>Type</th>
<th>Basic Checks</th>
<th>Reference Checks</th>
<th>Adds Data to Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validate</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Simulate</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Full</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
8. Handovers

Handover Certificates, usually referred to simply as ‘Handovers’ are used to guarantee Technical Integrity when responsibility is being transferred between Authorities.

Exactly what is being handed over, and when, varies between company, project and geographic location. Because of this, GoTechnology applications have a flexible approach, with a variety of configurations which can be used on a “per-scope-of-work” basis (Level E within hub2) allowing each to have its own Handover configuration.

The key components in each Handover are:

1. Name
2. Grouping
3. Gating

While the name is self-explanatory, the Grouping and Gating require further explanation.

8.1.1. Grouping

The Handover Grouping controls the “what” of the Handover, as in “What is it that I am handing over?” Perhaps the most commonly used Handover Groupings are System and Subsystem (e.g. when a Subsystem Handover is completed it represents a statement that responsibility for that Subsystem can be transferred onwards) but there are other categories too. The following groupings are available in hub2:

1. Certification Grouping
2. System
3. Subsystem
4. Primary Handover
5. Secondary Handover
6. System / Discipline
7. Subsystem / Discipline
8. Area
9. Module
10. Level E

8.1.2. Gating

The Handover Gating determines the “which” (the ‘scope’) and “when” (the ‘ordering’) of the Handover within the overall project, serving to answer the questions “Which certificates/ITRs are covered by this Handover and when in the complete Handover process should this particular Handover occur?”

Both questions are answered with a single field: The Handover Gate Number.

This field acts as both a link between the Handover and the ITR Classes as well as means of ordering the Handover within the project.
8.1.2.1. **Example: How Gating affects ordering.**

As an example of how this works, consider a scenario where there are three Handovers (please note these are intended as examples only):

<table>
<thead>
<tr>
<th>Handover</th>
<th>Gating</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOC</td>
<td>3</td>
</tr>
<tr>
<td>MCDAC</td>
<td>1</td>
</tr>
<tr>
<td>PCDAC</td>
<td>2</td>
</tr>
</tbody>
</table>

The Handovers are listed above alphabetically; however, in terms of the order within the Process, the MCDAC comes first, followed by the PCDAC and finally the HOC.

We can expand this further with an additional Handover:

<table>
<thead>
<tr>
<th>Handover</th>
<th>Gating</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCC</td>
<td>1</td>
</tr>
<tr>
<td>HOC</td>
<td>3</td>
</tr>
<tr>
<td>MCDAC</td>
<td>1</td>
</tr>
<tr>
<td>PCDAC</td>
<td>2</td>
</tr>
</tbody>
</table>

Now we can see that both the CCC and the MCDAC are to be completed first, followed by the PCDAC and HOC.

8.1.2.2. **Example: How Gating affects scoping.**

If we retain our previous set of four Handovers and introduce a table listing our ITRs and ITR Classes we can see how Gating affects scoping too.

<table>
<thead>
<tr>
<th>ITR Class</th>
<th>Gating</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>3</td>
</tr>
<tr>
<td>MC</td>
<td>1</td>
</tr>
<tr>
<td>PC</td>
<td>2</td>
</tr>
</tbody>
</table>

Now we know that our CCC and MCDAC cover all ITRs in the MC ITR Class, our PCDAC covers all in the PC class and our CCC in the COM class.
8.1.3. Walk Downs

Another key element in the handover process involves the physical inspection of the scope of the Handover (be it a System, Subsystem, Area or something else) by the process stakeholders. This process is known as a Walk Down.

There may be multiple Walk Downs held but all have the same general purpose: To identify any unrecorded defects and to verify that defects which have previously been identified have been actioned appropriately.
9. Preservation

Preservation involves tasks related to ensuring unused equipment is kept in working condition. These tasks are often repeated on a regular schedule, to ensure the equipment is properly maintained and ready to use when required.

9.1.1. Preservation Work List (PWL)

Within hub2 ‘Preservation Work Lists’ (PWLs) are used to record the completion of preservation tasks, and can be assigned to Tags, in a similar fashion to ITRs. The difference is that PWLs are part of a regular schedule of maintenance on unused equipment, while ITRs are used to sign-off that installed equipment is safe and has been properly tested as part of the Handover process (in which the goal is to start, or restart, the facility).

9.1.2. Tag Preservation Work List (Tag PWL)

Just as a Tag ITR represents an actual assignment of an ITR to a Tag so does a Tag PWL represent a PWL to a Tag. To explain this further; our PWL table will contain an entry for each type of Work List available for use. So, if there are ten different Work List types (perhaps named ‘PRES-A’, ‘PRES-B’, ‘PRES-C’ and so on) then there will be ten entries in the PWL table.

However, any one of these PWLs may be assigned multiple times to many different tags. This is where the Tag PWL entity comes into play; storing the details of each Work List the user creates and assigns.

9.1.3. Frequency

The Frequency of a Tag PWL describes how regularly the applicable preservation work should be performed. If a Tag PWL has a Frequency of seven days, then it should be performed once every week.

If it has a Frequency of 365 days it should be performed once, and then is not due for another 365 days, either from the Due Date (so the schedule remains consistent) or from the Sign-Off Date (so the schedule adjusts based on when the Tag PWL was actually signed off), depending on the configuration of hub2.

9.1.4. Due Date and Sign-Off Date

The Due Date is when the Tag PWL is expected to be completed by, while the Sign-Off Date is when the Tag PWL was actually signed off. It is possible in hub2 to apply restrictions to when Sign-Off can be accomplished, via the Level C Preservation Window Before and Preservation Window After settings.

9.1.5. Preservation Window

The Preservation Window (via the Preservation Window Before and Preservation Window After fields on Level C) allows restrictions to be placed on when a Tag PWL can be signed-off, specifically in relation to the Due Date.
The settings allow the Preservation Window to be restrict how many days before and how many days after the Due Date is acceptable. These values can be different. If either (or both) value is left blank, then no restriction applies.

9.1.5.1. **Examples**

**9.1.5.1.a. Due Date: 14 February 2017**

<table>
<thead>
<tr>
<th>Due Date</th>
<th>Preservation Window</th>
<th>Acceptable Sign-Off Values</th>
</tr>
</thead>
</table>

**9.1.5.1.b. Due Date: 20 March 2049**

<table>
<thead>
<tr>
<th>Due Date</th>
<th>Preservation Window</th>
<th>Acceptable Sign-Off Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 March 2049</td>
<td>Any</td>
<td>17 March 2049 to 24 March 2049</td>
</tr>
<tr>
<td>20 March 2049</td>
<td>2</td>
<td>17 February 2049 to 5 April 2049</td>
</tr>
</tbody>
</table>

**9.1.6. Preservation Progress Method**

Preservation Progress Method is a Level C setting which will be used to determine the next Due Date when advancing Preservation which is being signed off. When any Tag PWL item which has a populated Frequency, field is signed off a new Tag PWL record will be created and its Due Date will be set based on the Preservation Progress Method as detailed in the following table:

<table>
<thead>
<tr>
<th>Preservation Progress Method</th>
<th>Due Date</th>
<th>Sign Off Date</th>
<th>Advanced Due Date (Frequency of 5 Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due Date</td>
<td>15/01/2016</td>
<td>18/01/2016</td>
<td>20/01/2016</td>
</tr>
<tr>
<td>Sign Off Date</td>
<td>15/01/2016</td>
<td>18/01/2016</td>
<td>23/01/2016</td>
</tr>
</tbody>
</table>
10. **Assurance**

The Assurance section is as an area where project related lists can be recorded. It is intended to provide users with an alternative to the use of uncontrolled spreadsheets stored on network drives or emailed between recipients and may be beneficial for scenarios such as:

- Pre-Construction Trackers
- Operation Readiness Trackers
- Competency Recording

**Section 10.1. Creating a Tracker**

Before an Assurance Tracker can be created, we have to first create a Tracker Type. We can do this through the Tracker Type import or on-screen via Ref. Tables > Tracker Types

**10.1.1. Creating a Tracker Type**

The type of Tracker we wish to create is a “Statement of Fitness”. Normally it is an Excel spreadsheet:

### CHECKLIST FOR STATEMENT OF FITNESS

<table>
<thead>
<tr>
<th>Project Title: Template v2 (December 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asset Integrity Activity (PMF and DCAF reference #)</strong></td>
</tr>
<tr>
<td>a. Process safety risks have been identified and documented and are managed to ALARP - HSSE Cases in place &amp; approved (AIPS Application Manual requirements Applic. &amp; 12)</td>
</tr>
<tr>
<td>1. Design ALARP demonstration Report (Design HSSE &amp; SP Case) (PMF 1.0.5 &amp; 1.0.6) including HEMP + Sow Ties (or similar) &amp; Fire and Explosion Assessment</td>
</tr>
<tr>
<td>2. Operations ALARP demonstration report (Operational HSSE Case) (DCAF ID.48) including SMOPS &amp; MOPO</td>
</tr>
<tr>
<td>3. HEMP/HAZOP, FSR, etc. Actions Closed Out- Report in place and signed off</td>
</tr>
<tr>
<td>4. Risk Register &amp; Risk Management Plan in place for Project and Operations</td>
</tr>
<tr>
<td>5. Emergency response plan</td>
</tr>
<tr>
<td>6. Access modes and Operating Modes are evaluated (by OHAR) and approval closed out</td>
</tr>
<tr>
<td>7. Asset Integrity Risks are identified and rated in MTO database. MTO is updated and handed over to Facility</td>
</tr>
<tr>
<td>8. Project Specific items xxx</td>
</tr>
</tbody>
</table>

### b. Employees or contractors executing HSSE Critical Activities are competent and fit to work (AIPS Application Manual requirements 3, 4, 5 & 6)

| Operator Competence Assurance Plan with HSSE critical roles identified in job descriptions (DCAF ID.470) and accepted by job holder |
| Production Operations / Operations Management |
| Personnel in HSSE Critical positions roles are passed fit for work and trained on HSSE Critical Activities |
| Production Operations / Operations Management |
| Technical Authority or other approval framework in place for operate function |
| Production Operations / Operations Management |
| Project Specific items |

### c. HSSE Critical Equipment meets its Technical Integrity requirements (AIPS Application Manual requirements 7)

| Critical Integrity item identified and documented in Asset register, included in Operate HSSE Case (DCAF ID.1446) |
| HSSE & SP |
| Performance Criteria for design, procurement & construction and commissioning have been developed and approved by the Technical Authorities (DCAF ID 1446) |
| Maintenance & Integrity |
| Asset Integrity verification (TV) Report (assurance and verification of the |
| Project Management |
We want to convert it to be stored in GoTechnology hub2 instead. Firstly we create the Tracker Type:

Aside from the name and description ("SoF" and "Statement of Fitness" respectively) we’ve chosen a Sub Category of Asset Integrity and a Phase of SU (Start-Up).

The Sub Category (and it’s parent Category) are user-defined references tables, which you can use to create groupings. The values are up to you/your company/your focal point – for this example we have a Sub Category of “Asset Integrity” (as that is what the SoF applies to) which belongs to a Category called “Mandatory Forms” (as organisations that use an SoF make it a required part of the project execution)

**Note:** Phase and Sub Category are optional, but if you do wish to use them, you’ll need to ensure the following tables have been populated in advance:

- Tracker Category
- Tracker Sub Category
- Phase

Once we’ve saved this information (click “Save & View”) we can move on to creating the template itself.
10.1.2. Creating the template

By clicking the Create/Edit button we can begin the process of setting up our SoF Tracker Type Digital Document.

The process is the same as with other types of Digital Document, such as ITRs and Work Pack close out forms, and involves defining any bookmarked header fields, the tasks to be completed and the sign-offs required.
Our SoF template only has a single header value: Name.

Next we copy the information from the existing spreadsheet into the Digital Document Tasks
Once we've finished copying the Tasks over, we can move on to adding the Sign-Offs.
The SoF has two: Project Manager Sign Off and Asset Manager Sign Off, both are mandatory but it is the latter which marks the SoF as closed and accepted, so the types are “Required” and “Complete” respectively.

Our template is now complete and can be used by projects. We’ll only need to revisit this section if we wish to make changes to the template.

10.1.3. Creating and Filling in an Assurance Tracker

Now we have the SoF tracker type created, we can proceed to the Assurance > Assurance Tracker type to use the template.

Go to Assurance > Assurance Tracker and click the “Add” button, that will bring up the creation screen:

![Assurance Tracker: SoF Refit 2020](image)

We’ve given our SoF a name (this will be shown on the header of the document, as we bookmarked this field during the process of creating the template in the Tracker Type) and description as well as a planned due date. We also chose the correct Tracker Type of “SoF” in the Tracker Type field.

Click Save and View
Then click “Edit Document”

Now we can fill the Tracker with the results and save them by clicking the “Save” button.
Finally, by going to Assurance > Tracker Completion Grid we can see a visual representation of our progress. 2.56% - it’s not much but it’s a start!
11. Reports

Now you’ve loaded all your data (or at least the first batch) you probably want to know how to use it to generate status and progress reports. Well, GoTechnology hub2 has several options at your disposal.

Section 11.1. Dashboard

The first and most visible report you’ll see is the Dashboard. It acts as an overview and a “health check” of the Scope (Level E) you’re currently viewing:

The dashboard is divided into six sections, which we’ll detail below.

11.1.1. Handovers

This section shows up to six types of Handover. They’re listed by “gate” and then alphabetically. Each dial shows a percentage of how many Handovers of that type have been signed off as Complete.
11.1.2. **Tag ITRs**

The first dial here shows the total percentage of ITRs signed off. After that it's broken down by ITR Class. Up to five different classes can be shown at once (remember, you set up your ITR classes in the reference tables), and they’re ordered in the same way as the Handovers (gate then alphabetical).

11.1.3. **Punch List Items**

Similarly, the Punch List dials show the total and then the Punch List categories (as defined in your Punch List Categories reference table). They’re listed alphabetically.

11.1.4. **MOCs**

MOCs follow the same pattern – overall total and then a total for each MOC Type. Once again, the total represents the number of MOCs that are closed.

11.1.5. **Mini-Skyline**

Here we have a cut-down version of the Interactive Skyline (which you can find in Reports > Skyline. There’s also Filtered Skylines in Reports > Report List at the bottom of the page) which is fixed to only show one type of Handover (in the screenshot above it’s MCC, which is a Mechanical Completion Certificate). If you’re an Administrator you can choose which Handover is displayed on the dashboard in the Level E configuration screen.

Skylines show a left-to-right view of a project. Each box represents a Handover, and **they’re grouped together by the date they are due** (the Planned Finish Date for the Handover. You can set this value in the Handovers section, or via the Handovers imports)

<table>
<thead>
<tr>
<th>Foreground Colour</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange:</td>
<td>Progress is being made!</td>
</tr>
<tr>
<td><img src="image" alt="MCC-AL-085-508" /></td>
<td>33.3%</td>
</tr>
<tr>
<td>Green:</td>
<td>All the ITRs are complete!!</td>
</tr>
<tr>
<td><img src="image" alt="MCC-AL-076-507" /></td>
<td>100%</td>
</tr>
<tr>
<td>Blue:</td>
<td>The Handovers been accepted!!!</td>
</tr>
<tr>
<td><img src="image" alt="MCC-AL-045-501" /></td>
<td>85.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Background Colour</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange:</td>
<td>Progress is being made!</td>
</tr>
<tr>
<td>Green:</td>
<td>All the ITRs are complete!!</td>
</tr>
<tr>
<td>Blue:</td>
<td>The Handovers been accepted!!!</td>
</tr>
<tr>
<td>White:</td>
<td>We haven’t passed the Planned Finish Date for this Handover (and we’re 50% through the work on the ITRs)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><img src="image1" alt="MCC-AL-070-503" /> 50%</td>
<td></td>
</tr>
<tr>
<td>Red:</td>
<td>Unfortunately, we’re now passed the Planned Finish Date for the Handover, which means we’re running behind schedule (and we’re 50% through the work on the ITRs).</td>
</tr>
<tr>
<td><img src="image2" alt="MCC-AL-084-501" /> 50%</td>
<td></td>
</tr>
<tr>
<td>Rainbows and Polka Dots</td>
<td>I just made this one up to see if you were still paying attention.</td>
</tr>
</tbody>
</table>

On the mini-skyline, space is limited, so all the Overdue items are grouped together in one column.

### Why are they called Skylines anyway?

Well, think of New York. The Big Apple. NYC. Picture those skyscrapers. That iconic **skyline**.

Get the picture?

### New York vs Not New York

11.1.6. **Mini-Planned vs Actual**

A smaller version of the Planned vs Actual report (the full version is available in Reports > Planned vs Actual) which is fixed to only show one type of Handover (in the screenshot above it’s MCC, which is a Mechanical Completion Certificate). If you’re an Administrator you can choose which Handover is displayed on the dashboard in the Level E configuration screen.
The Planned vs Actual reports show the total ITR Completion over time. As such, it’s actually the same information as shown in the Skyline, but instead of being broken down into individual Handovers, it’s totalled up and displayed in an “S-Curve” format.

Section 11.2. Completions Grids

The Completions Grids provide an interactive visual view of the data, which can be a helpful way to quickly drill down into project Status.

11.2.1. System

In the standard Completions Grid (Reports > Completions Grid) we get a listing of ITR progress by System. If we click on the System we get to the Subsystems, and if we click on the Subsystems, we get to the details page.

11.2.2. Work Pack

In the Work Pack Completions Grid (Reports > Work Pack Completions Grid) we have a list of Work Packs. Clicking on a Work Pack gives us the Job Cards underneath and clicking on the Job Card gives us its details.
Section 11.3. Skylines

How do you like your Skylines; Interactive or Filtered? We’ve got both!

*(If you’d like to know what Skylines are, go back up to the Mini-Skylines section. We’ll wait here for you.)*

11.3.1. Interactive

The Interactive Skyline is found in Reports > Skyline. You can choose the Handover Type from the dropdown, scroll left and right, and click on the box to bring up further details!

11.3.2. Filtered

The Filtered Skylines are found in Reports > Report List at the bottom of the page. There’s one for each Handover Type.

What makes them filtered? Well, you can apply filters to them before you hit the run button, allowing you to narrow down the results to only include what you need.
Section 11.4. Planned vs Actual

The full version of the Planned vs Actual report, available in Reports > Planned vs Actual Progress. You can choose which Handover to display using the drop down on the top right.

(For more information on Planned vs Actual reports, please read the “Mini-Planned vs Actual” section earlier in the document.)

Planned Progress is shown in Orange and Completed (Actual) in blue. From the looks of the screenshot above, someone will be losing their job soon!

Interactive Skylines are shown on screen. You can click on the boxes and more details come up on screen.

Filtered Skylines generate out as PDF files. Before you run them you can apply Filters like the Planned Start / Finish dates. This lets you target your results more specifically.
Section 11.5.  Detailed & Summary Reports

In GoTechnology hub2 you create the reports (provided you have the right permissions of course)

Let’s create one right now (or if you’d rather not, you can just skip this section. We won’t be offended.)

11.5.1.  Recreating the Detailed Filtered Report

The Detailed Filtered Report was far and away the most popular report in our old software GoCompletions (in fact 46% of the time people ran a report it was the DFR, making it more than three times as popular as the second placed Detailed Punch List report.)

To recreate it, just follow these steps:

1.  Click Reports > Create Detailed Report

2.  In the Type Dropdown choose “Tag ITR”

3.  In the Select Groups section choose System and Subsystem, as shown above.

To change the order, just click and drag the double-ended arrow up or down!
4. Scroll down the page and select the following fields (also shown above):
   a. Tagged Item
   b. Tagged Item Description
   c. ITR
   d. ITR Description
   e. Test Reference
   f. Area
   g. Module
   h. Completed By (this field may be called something different in your version, as the field can be renamed to match company specific terminology. If in doubt, ask your focal point!)
   i. Completed Date
5. Now fill in the remaining fields (see screenshot below)
   a. In Report Code enter “DFR”, this is just a short-hand way to refer to the report. Much easier to say.
   b. Report Name, erase the text in there and replace with “Detail Filtered Report”. This is the full name – helpful in understanding what the report actually does.
   c. For Tagged Item
      i. Change the Header on Report to “Name”
      ii. Change Title (Above Header) to “Tag”
   d. Similarly, for Tagged Item Description
      i. For Header on Report use “Description”
      ii. For Title (Above Header) use “Tag” again. This will group the two together, which you’ll see later.
   e. For ITR, change the Title (Above Header) to “ITR”
   f. For ITR Description
      i. Change the Header to “Description”
      ii. Enter “ITR” in the Title (Above Header)
   g. For Test Reference
      i. Rename to Test Ref
      ii. Enter “ITR” in the Title
   h. Click “Save Report” and you’re done!
Remember: If any of the fields are in the wrong order, just click and drag the double ended arrow.

You can also change the widths of the columns if you like – "PDF Width" affects how wide (or narrow) the columns are when you generate as a PDF. “XLSX Width” when you generate as a spreadsheet.

Now use the top menu to go back to the Report > Report List page and find your report in the Detailed Category. Click on it (DFR. Detail Filtered Report), and then click the Run PDF button, you should get a PDF that looks a little like the below:

![Detail Filtered Report](image)

Well done! Now go make some more reports!

How do I edit my reports?

Go to Report > Report List and click the “Edit Reports” button.

Now just click the “Edit” button next to the report you want to change, and you’ll be back to the edit screen – and remember to click Save Report when you’re done!