aptean

Aptean Proof of Delivery - *Calidus* Edition

C-ePOD Standard Interface Configuration

CALIDUS ePOD

9th April 2019 - 4.5.00.02
Reference: OV 287575

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1 Consolidation Guide

This guide will help you through the end-to-end process of the consolidation and de-consolidation of jobs.

1.1 Overview

Consolidation is the process of identifying multiple jobs that the driver can complete at the same time in the mobile device application. Usually, the jobs that can be consolidated are to the same customer or same address, but not necessarily so. For example, when making multiple deliveries in the same building, the customers may be different, but they are all delivered to the same gatehouse. Conversely, jobs to the same address may not require consolidation, for example deliveries to a hospital, where the driver must deliver these to different departments.

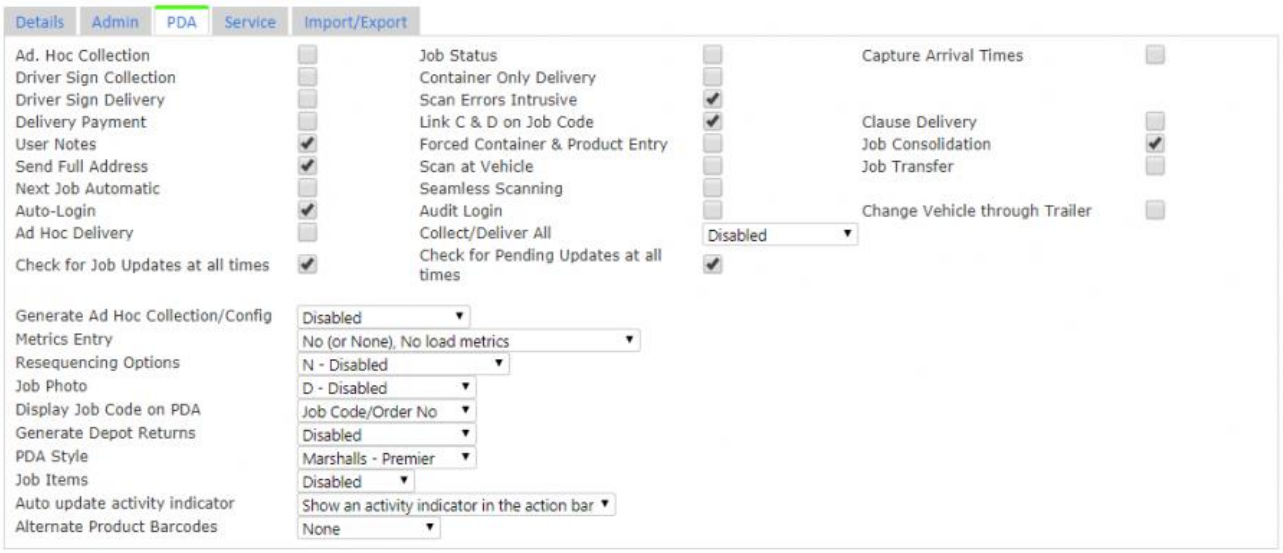
De-consolidation is the act of breaking a consolidation, or breaking items or jobs out so that the driver can deliver them separately. In the examples above where you have consolidated jobs to one address, the driver may then find that some of the items or jobs must be delivered to a different place. In this case, the driver has options to break these jobs or items out of the consolidation and do them separately.

1.2 Configuration

You can set the site setting for Job Consolidation to allow all jobs to be consolidated manually by the driver on the device.

Note: If you do not set this, the application will check the job group setting.

This is through the Admin Site Maintenance screen.

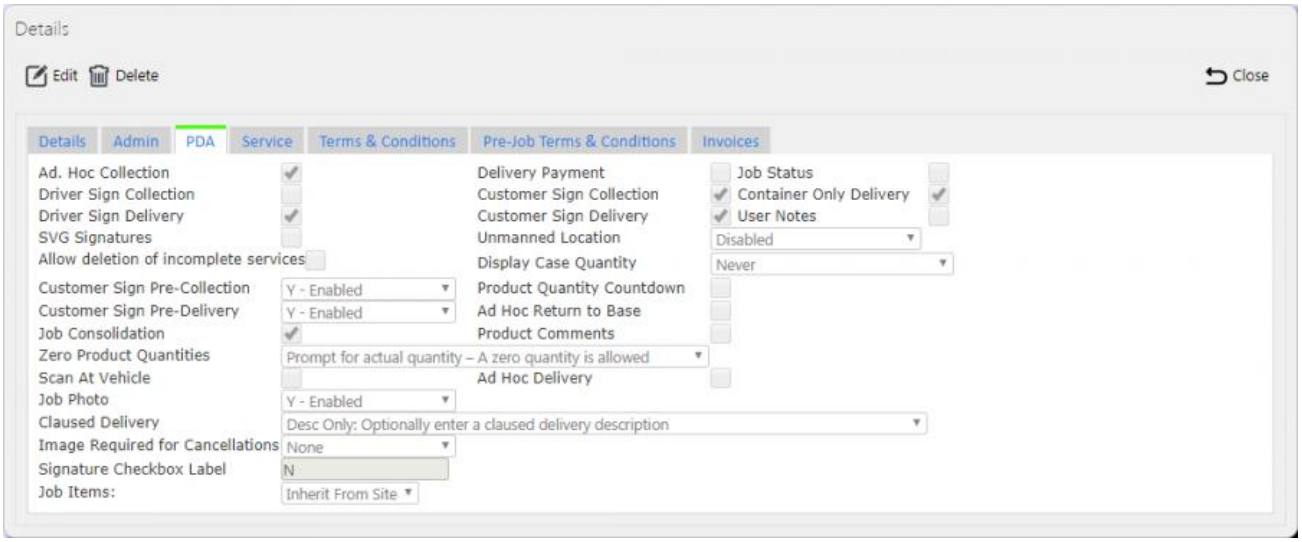


Site Consolidation Setting

You can set the job group setting for Job Consolidation to allow all jobs specifically for that Job Group to be manually consolidated by the driver on the device.

Note: If you set this, this overrides the site setting.

This is through the Admin Job Groups Maintenance screen.



Job Group Consolidation Setting

1.3 Consolidating Jobs to/from External Systems

Whenever an external system sends loads and jobs to *CALIDUS* ePOD, they can indicate whether the jobs should be consolidated in the interface, by setting a unique *Linked ID* against jobs in the load.

So, if the load has 5 jobs with the following *Linked ID*s:

Job	Sequence	Linked ID
Job1	1	
Job2	2	1
Job3	3	2
Job4	4	1
Job5	5	2

The mobile device will display this as:

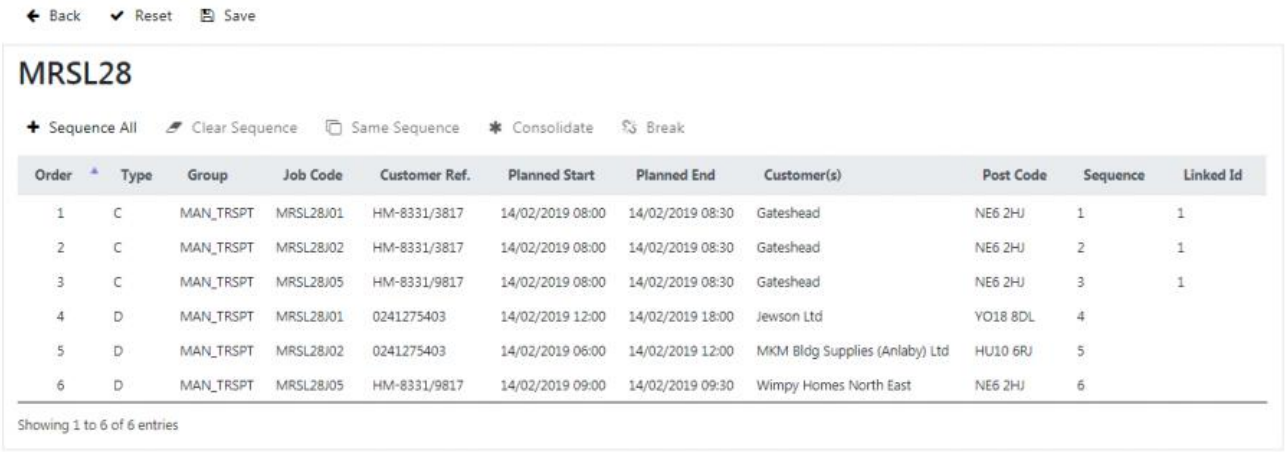
Displayed	Notes
2 Consignments	Consisting of jobs Job1 and Job3.
2 Consignments	Consisting of jobs Job2 and Job4.
Job5	not consolidated.

Note: This over-rides the sequence of jobs in the jobs list - the mobile device application will display all jobs with the same *Linked ID* as a single row on the job list, at the point where the first job would have been shown. You can get more details on how the application lists jobs on the device in the Job List Sequence section.

You should also note that, when the driver has completed jobs, and if they have consolidated or de-consolidated jobs during the course of completing the jobs, *CALIDUS* ePOD will send back that information to the external system (in *Link ID*), so that the external system is aware that these locations may need consolidating or breaking in the future. This allows the external system to learn the best consolidations.

1.4 Consolidating Jobs in Admin

You can consolidate jobs together on a load using the Job Sequencing screen in the *CALIDUS* ePOD Admin system.



Order	Type	Group	Job Code	Customer Ref.	Planned Start	Planned End	Customer(s)	Post Code	Sequence	Linked Id
1	C	MAN_TRSPT	MRSL28/01	HM-8331/3817	14/02/2019 08:00	14/02/2019 08:30	Gateshead	NE6 2HJ	1	1
2	C	MAN_TRSPT	MRSL28/02	HM-8331/3817	14/02/2019 08:00	14/02/2019 08:30	Gateshead	NE6 2HJ	2	1
3	C	MAN_TRSPT	MRSL28/05	HM-8331/9817	14/02/2019 08:00	14/02/2019 08:30	Gateshead	NE6 2HJ	3	1
4	D	MAN_TRSPT	MRSL28/01	0241275403	14/02/2019 12:00	14/02/2019 18:00	Jewson Ltd	YO18 8DL	4	
5	D	MAN_TRSPT	MRSL28/02	0241275403	14/02/2019 06:00	14/02/2019 12:00	MKM Bldg Supplies (Anlaby) Ltd	HU10 6RJ	5	
6	D	MAN_TRSPT	MRSL28/05	HM-8331/9817	14/02/2019 09:00	14/02/2019 09:30	Wimpy Homes North East	NE6 2HJ	6	

Showing 1 to 6 of 6 entries

Job Sequencing screen

You can access this screen from the Loads screen, by clicking the *Job Sequencing* action button on the row for the load on which you want to consolidate jobs.

You can select a job by clicking on it - clicking on it again will deselect it. When you select a job, the will be highlighted blue.

When you select two or more jobs, clicking the **Consolidate** button will set the *Linked ID* of all the jobs to the same value.
Note: If some of the selected jobs are already linked with this ID, all the jobs with this linked ID will be updated as well.

When you select one or more jobs with a link ID, clicking the **Break** button will clear the linked ID of all the selected jobs. Any jobs remaining with the same linked id that are only present once on the load will also be cleared.

You can find more details in the Admin User Guide, in the Job Sequencing section.

1.5 Executing Consolidated Jobs on the Mobile Device

When you have consolidated jobs, the process is combined, and the driver has a few more options available to them.

The driver will start the mobile device application and log in to the application by:

- entering their user name.
- selecting the vehicle.
- clicking the **Log In** button.

The driver will then be allocated a load and the application will display it in the job list.

When you have a single job, the device job list typically displays the job identifier. When you have consolidated jobs, they appear as "X Consignments" instead.

The driver has several menu options available to them on the job list for consolidation and de-consolidation - these are covered in detail in the following sections.

The driver can select consolidated jobs from the Job List in the same way as an ordinary collection or delivery job.

If the driver chooses to cancel consolidated jobs (i.e. non-delivery, non-collection), they can choose to cancel only one of the consolidation, or to cancel all of the jobs.

When the driver views the consolidated jobs by pressing the row on the job list, the job details screen displays the number of jobs in the consolidation and **<** and **>** buttons so that they can scroll between the jobs and see the details.

The job details *information* tab shows any instructions from all of the jobs in the consolidation.

The driver only has to press **Start Job** and **Arrive Job** once to start or arrive to all of the jobs in the consolidation - all jobs are stamped with the same time.

The application will prompt the driver to enter an arrival signature once, if you have configured arrival signatures - the signature is referenced against all jobs.

The application will prompt the driver to enter pre-job UDF once only, if you have configured pre-job UDF.

The info tab on the collection/delivery screen has similar options to the job details screen, in that the screen will display the first job in the consolidation, the count of jobs, and **<** and **>** buttons so that they can scroll between the jobs and see the details.

Warning: Each job has its own job UDF, which the application displays as you move between each job using the buttons above, if you have configured UDF for their job group. Each job in the consolidation must have its UDF completed before the jobs can be completed.

The driver has options against items to break items out, which will break the whole job out of the consolidation - this process is covered in more detail in the following sections.

The driver is required to enter one customer signature (if you have enabled customer signatures for this job type).

The driver is required to enter one driver signature (if you have enabled customer signatures for this job type).

The application prompts the driver to enter job photos once. The photos taken are stamped against all jobs.

Job Details

1.6 Consolidating Jobs on the Mobile Device

There are multiple methods to consolidate jobs.

Method 1:

- The driver can long-press on one of the jobs to be consolidated.
- The driver can then select the *Group Jobs Together* option.
- The device will display a slightly different job list, allowing jobs to be consolidated together.
- The driver then clicks on the jobs to select and highlight those that are to be grouped together. If they click the job again the application will de-select it. If the driver selects a job that is already consolidated, all of those jobs will be selected and highlighted.

- Alternatively, the driver can scan an item from the job - when the application identifies the job, it will select that job for consolidation. Note that you can configure whether this functionality is available.
- When the driver has selected the required jobs, they press the **Consolidate** button.

Method 2:

- The driver can press the **Menu** button on top-right of the Job List screen.
- The driver can then select the *Consolidate* option.
- The driver will be asked to select what types of jobs they want to consolidate - collections or deliveries.
- The device will display a slightly different job list, allowing jobs to be consolidated together.
- The driver then clicks on the jobs to select and highlight those that are to be grouped together. If they click the job again the application will de-select it. If the driver selects a job that is already consolidated, all of those jobs will be selected and highlighted.
- Alternatively, the driver can scan an item from the job - when the application identifies the job, it will select that job for consolidation. Note that you can configure whether this functionality is available.
- When the driver has selected the required jobs, they press the **Consolidate** button.

Note: In order for the driver to group jobs together, they must be of the same type i.e. collections or deliveries.

The application does not restrict consolidation in any other way, for example there is no restriction that the jobs must be for the same customer, job group or to the same address.

When jobs are consolidated, they show on the job list as a summary number of consignments for example "3 Consignments".

Job list

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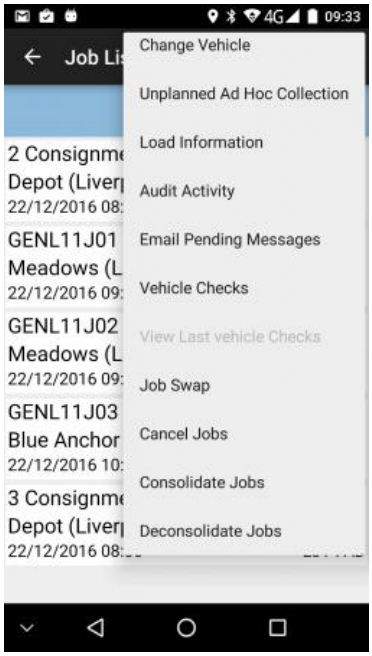
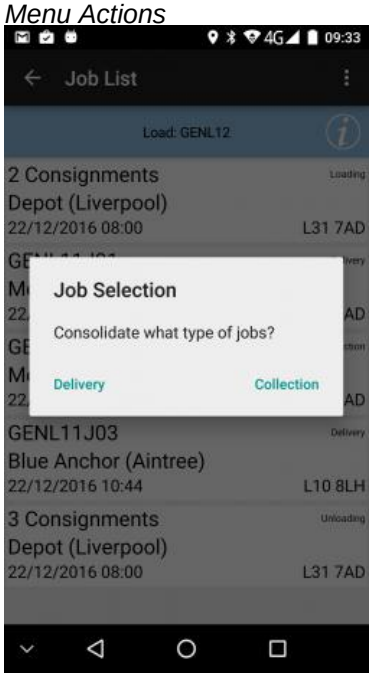
- 

Menu Actions

- 

Select Job Type

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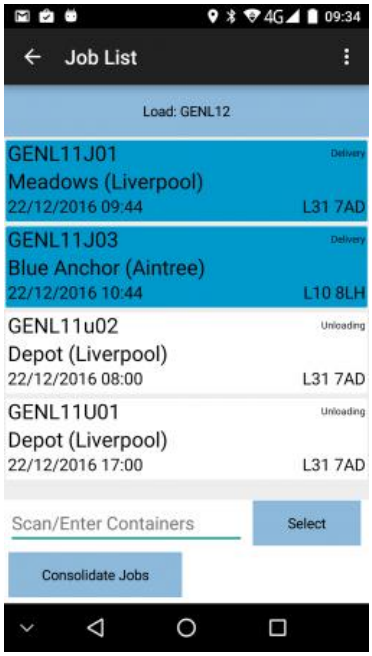
- 

Consolidating Jobs

1.7 De-consolidating Jobs on the Mobile Device

Jobs can be de-consolidated through many methods:

Method 1:

- The driver returns to the Job List.
- The driver long presses on a consolidated job entry to bring up the options.
- The driver can then select *Break Group* to split the consolidation back to the original component jobs. The Job List will be re-displayed, showing each of the previously-consolidated jobs each on a single row.

Method 2:

- The driver can click the **Menu** button on top-right of the Job List screen.
- The driver can then choose the *Deconsolidate* option.
- The device will display a slightly different job list, allowing jobs to be consolidated together.
- The driver then clicks on the jobs to select and highlight those that are to broken out of consolidation. If they click the job again the application will de-select it.
- Alternatively, the driver can scan an item from the job - when the application identifies the job, it will select that job to be broken out of the consolidation. Note that you can configure whether this functionality is available.
- When the driver has selected the required jobs, they press the **Deconsolidate** button.

Method 3:

- Whilst the driver is collecting or delivering the consolidated jobs, they can choose an item to be broken out of the consolidation in the items/containers list, by long-pressing on the item and selecting the *Deconsolidate Job* option there.

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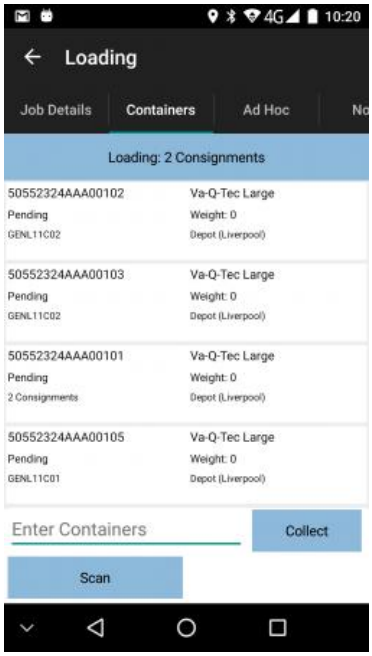
- 

Containers Tab, showing single and consolidated containers

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2 Custom Device Styling

As part of most implementations, we offer to style the mobile device closer to your needs. Typically, the standard setup of the application and styling results in your logo being displayed on the device, with most information displayed as required.

However, almost all of the application can be styled to some degree, in terms of size, colour, whether the items are displayed or not and in some cases position on the screen.

The most common styling elements concern the following:

- General
    - ♦ General colour scheme
    - ♦ Terms
- Job List
- Collections/Deliveries
    - ♦ Container List
    - ♦ Product List
- Services
    - ♦ Service Products

Note that you can configure or remove elements or add functionality to screens through the standard Site, Job Group and UDF configuration - see the following pages for more information:

- Site
- Job Groups
- UDF Configuration
- User-Defined Fields

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2.1 General Colour Scheme

We can modify the general mobile device colour scheme to define the background colours for:

- Title bars
- Buttons

This can provide a more integrated colour pallet for your implementation

2.2 Terms

The style can modify and replace all messages, errors, titles, labels, buttons, tabs and text.

These terms can be defined in multiple languages if required, although we do not offer an in-house translation service.

All terms can be provided on request.

2.3 Job List

Job list

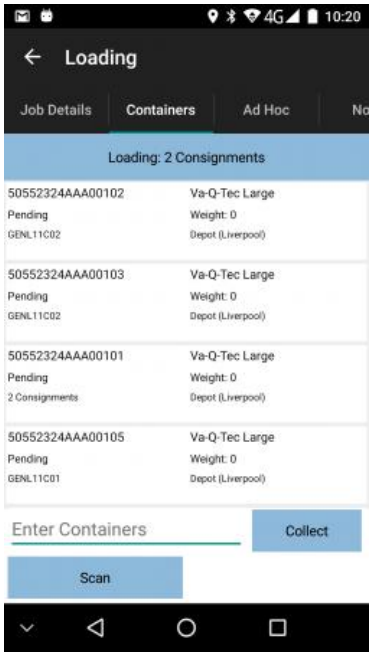
The screen displays a list of all the jobs, containing:

- Job Status (through background or border colour).
- Job Reference - configured to be one of the 5 references available for the job. The system will be configured to display the most appropriate job reference on this screen (and throughout the whole application).
    - Job ID - a unique identity of this particular job, assigned by the system when the job is created.
    - Job Code - typically the transport or general service reference for the job, which may be shared between any collections or deliveries of items for the customer.
    - Customer Reference - any customer reference associated with the transport reference.
    - SO Reference - a Sales Order reference.
    - External Reference - any external reference provided with the job when created.
    - When jobs have been consolidated together, this will display a count of the number of consignments instead.
- Job Type, one of:
    - S - Service.
    - C - Collection (and Loading).
    - D - Delivery (and Unloading).
- Planned Start/End Date/Time - typically this is the planned arrival time. This can be configured to show the range of start to end time.
- Job Sequence - the planned sequence of the job on the load.
- Customer Name.
- Postcode.
- Short address - Address line 5 plus postcode.
- Container and Product Counts (for Collections/Deliveries).
- Total product weight and total unique product count (for Collections/Deliveries).

Styling options:

- The position, size and colour (foreground and background) of any of these elements may be configured by the style.
- The size of the panel shown per job may be configured by the style
- The outline or background colour can be modified to display the status of the job, typically:
    - Amended - blue
    - In Progress - dark yellow
    - Deleted/Cancelled - red
    - Completed - green
- Elements from the list above can be shown or hidden.
- The elements can be in any order.

2.4 Container List

- 

Containers Tab, showing single and consolidated containers

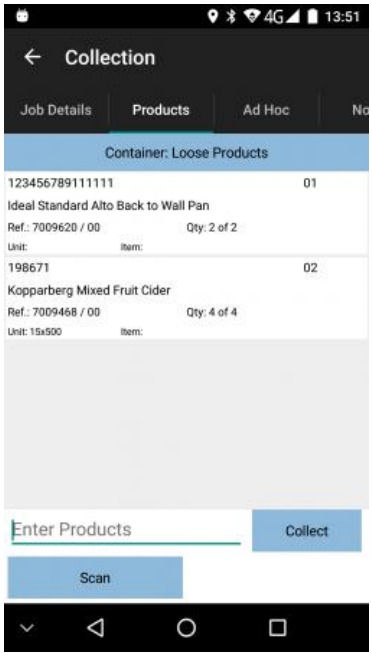
From the *Containers* tab, the device will show a list of the unique items to be collected, which can show:

- Container ID
- Package Description
- Status (starting at "Pending")
- Weight
- Long Description
- Job Reference (if consolidated)
- Customer Name (if consolidated)
- Product Count
- General Codes - up to 3 general-purpose codes on the container

Styling options:

- The position, size and colour (foreground and background) of any of these elements may be configured by the style.
- The size of the panel shown per container will always be the correct size for the elements displayed.
- Elements from the list above can be shown or hidden.
- The elements can be in any order.

2.5 Product List

- 

Products Tab

From the *Products* tab, the device will show a list of the products to be collected, which can show:

- The Product Code
- The Sequence
- The full Description
- The Long Description
- Any Customer Reference associated to this product
- The Planned Quantity
- The Job Reference (if consolidated)
- The Item Type
- The Unit Type
- The Position
- The Pack Size

Styling options:

- The position, size and colour (foreground and background) of any of these elements may be configured by the style.
- The size of the panel shown per container will always be the correct size for the elements displayed.
- Elements from the list above can be shown or hidden.
- The elements can be in any order.

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2.6 Service Products

From the *Products* tab, the device will show a list of the products to be installed or removed, which can show:

- Product Code
- Product Description
- Action (Installed, Removed)
- Vehicle Reg
- Product Qty

Styling options:

- The position, size and colour (foreground and background) of any of these elements may be configured by the style.
- The size of the panel shown per container will always be the correct size for the elements displayed.
- Elements from the list above can be shown or hidden.
- The elements can be in any order.

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3 Device Installation

3.1 Android Devices

General Device Settings Notes:

- Ensure GPS is enabled for all location checks.
- Ensure the device is registered to a Google account, either for the specific customer account or a generic account for that customer generated and registered by OBS e.g. customername.1.calidusepod@gmail.com. If an account is created, note the password, set the recovery email to calidus.epod@obs-logistics.com and the security question to "Managers name at first job", answer as "Dave Renshaw".
- If configuring OBS devices, use Calidus.Epod80@gmail.com.
- Do not configure any other device-specific or cloud accounts.
- Ensure where possible that apps are installed through the Google Play application link (currently this is the generic CALIDUS ePOD app, but there may be customer-specific app releases in the future i.e. CALIDUS ePOD for CustomerName).
- Download all device software updates.

Optional:

- Ensure Wifi is enabled, but not linking to unknown sources.

3.1.1 Installing the *CALIDUS* App

If the new version is released through the Google Play market, the update should be available to download through that application within a few hours of being published.

Alternatively, installations could be being performed in other ways:

- Through MDM software
- Through side-loading

3.1.1.1 MDM

Send the APK file (in P:\Releases\EPOD\Android\Distro) to the MDM company administering the devices for that client - they will handle the installation and distribution of the app.

3.1.1.2 Side-Loading

Side-loading is the action of installing applications without using the official Google Play market.

Note: Check *Settings/Security/Unknown Sources* to allow side-loading on the device.

There are several methods:

Email

- Email the APK to the email address of the user of the device.
- Download the application from the mail application.
- Click on the downloaded APK file (from the status bar or the Downloads app.

Bluetooth

- Enable Bluetooth on the device.
- Pair with the PC or other device that has access to the APK.
- Share the file via Bluetooth, using a File Explorer app.

SD Card

- Place the APK file on an SD card compatible with the device.
- Put the SD card in the device.
- Install the APK file from a File Explorer app.

File Copying through a PC/Mac

- Connect the device to a PC or Mac using the supplied USB.
- Enable USB sharing on the device.
- The device should automatically connect - if not, ensure you install any required USB device drivers. For example, for Samsung, you may need to install *Samsung Kies* - download from the internet.
- Copy the APK to the mounted internal or external SD card of the device, when mounted.
- Install the APK file from a File Explorer app.

Android Debug Bridge (ADB)

- Connect the device to a PC or Mac using the supplied USB.
- Enable USB sharing on the device.
- The device should automatically connect - if not, ensure you install any required USB device drivers. For example, for Samsung, you may need to install *Samsung Kies* - download from the internet.
- When started, install the apk through adb command line from the directory containing the APK, with the following command:

```
{Android SDK}\platform-tools\adb.exe install "CALIDUS ePOD.apk"
```

- Note that this installation can take some time to complete.

Hosted File

The file may be hosted on your server in a location similar to the following location:

http://your.url.com/webservices/calidus_epod/PDAUpdates/CALIDUSePODv4.apk

If so you can access this through the URL provided to you.

The device requires:

- internet access
- browser access
- access to the Downloads app
- The settings enabled to allow installation of packages from *Unknown Sources*.
- You may need to uninstall any previous versions of the application first.
- Optionally, a Barcode Scanner app may be used (to install through a QR Code)

Enabling *Unknown Sources*:

- Check Settings/Security and tick Unknown Sources to allow side-loading on the device.

Note: Developer options may be required to enable unknown sources. To enable these:

- Go to *Settings/About*
- Click anything 7 times in a row.

Instructions for installation:

- Using the URL:
  - Start the Browser (or Chrome).
  - Enter the URL provided - the file will start to download.
- Using a QR Code
  - Use a Barcode scanner application to scan the provided QR Code with the link encoded.
  - Click the link scanned - the download will proceed
- When the download is complete, click the app downloaded from the Download dialogue. If this is not visible, this may be found from the drag-down notifications tab or from the Downloads app (from the app folder or from the status bar). Click on the APK file.
- Confirm you want to install the file (depending on the setup of the device, this may require several confirmations).
- When complete, you can either open the app from the installer, or exit and open the app normally.

3.1.2 Configuring the *CALIDUS* App

- On start-up of the application, you will be requested to do some set-up. Choose **Yes**.
- The device will request whether the settings should be set through a QR barcode scan or manual entry. If **Barcode** is pressed, scan the provided *CALIDUS* ePOD Settings QR barcode. If **Manual** is pressed, set up via the Configuration screen as below:
    - Enter the ***Site*** of the installed user system.
    - Enter the ***Webservice*** - this will be the URL of the installed user system. For test purposes, this is usually one of:
        - http://www.calidus-web.com:9093/epod_dev
        - http://www.calidus-web.com:9093/epod_test
        - http://www.calidus-web.com:9091/epod_uat
        - http://www.calidus-web.com:9091/epod_trial
        - http://www.calidus-web.com:9091/epod_demo
    - Additional settings regarding Vibration and Alerts can be set a required.
    - All other settings should default to reasonable values.
    - Exit with the **Back** button on the device.
- Clear the confirmation pop-up with the **Back** button on the device.

To create a QR Settings Barcode:

- Place all the settings into a java object string, as follows. Note that only the following settings may be set through the string, for example.

```
"SITEID":"TEST",
"WEBSERVICE":"http://www.calidus-web.com:9093/epod_test/",
"WSINTERVAL":"60",
"UPINTERVAL":"300",
"GEOMSGINTERVAL":"0",
"OBSALERT":"content://media/internal/audio/media/34",
"GEOTAG":"true"
```

- Remove all returns/line-feeds from the string.
- Create a QR barcode from the result, using an on-line QR barcode generator. There are two types:
    - Plain: http://goqr.me/
    - With embedded image: http://www.qrcode-monkey.com/. For this site, load up a customer logo to embed in the image. Ensure there is sufficient white-space around the logo, or the resulting QR barcode will not scan. You may need to adjust the density of the resulting barcode or the resolution of the image to achieve best results.

Examples:

- 
Plain

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- 

With Image

3.1.3 CoPilot Truck installation

- Side-Load the CoPilot Truck application - see instructions for Side-loading above.
- Start the application and register for CoPilot Live using the customer Gmail address used when setting up the device.
- Download the required maps.

3.1.4 SureLock installation

- Install SureLock from the Google Play store. **Note:** There is a specific SureLock application for Samsung devices, so choose the correct one.
- Select SureLock from the App List.
- Follow the instructions to start SureLock.
- Press the screen 5 times in quick succession, then enter '0000' as the password.
- Select *Import/Export Settings*
- Choose *Import from File*
- Enter the web address of the settings file for this installation.
- Click **Done** or the **Back** button twice.

Note: If a background has been created for the SureLock application, these can be downloaded and placed in the /sdcard/Downloads folder, or the backgrounds can be hosted on the server, like the settings files.

Note: To create a new customer-specific SureLock settings file:

- Create customer-specific backgrounds and download onto a device.
- Follow the SureLock installation guide, using the OBS.txt or OBS_Samsung.txt settings files.
- Change the settings as follows:
    - Background (Portrait and landscape if provided) to the new Backgrounds. These can be set to URLs from the hosting system e.g. http://www.calidus-web.com:9093/epod_test/SureLock/BIU.PNG
    - Enable or Disable any applications that are not required, and any other settings.
    - Change the 'Automatic Import File' to the hosting system's SureLock URL, plus '<customer>.txt', e.g. http://www.calidus-web.com:9093/epod_test/SureLock/BIU.txt
    - Enter the Activation ID in the 'About SureLock' menu.
    - Check the 'Export Activation' in 'Import/Export Settings'
- Export settings to file (accept the default).
- Exit SureLock.
- Connect the device to a PC and download the saved settings file. **Note:** The file sometimes does not export in full - please check.
- Copy to the SureLock directory in the hosting machine.
- Rename to <customer>.txt

3.1.5 SIM and GPRS Settings

In general, the SIM card should be configured with the correct settings - this should be tested with Internet Explorer after all other configuration is completed.

If there are issues, the following guide may help to fix issues.

Warning: OBS Logistics accepts no responsibility that the following information is correct. Incorrect settings may result in charges from your provider. It is strongly recommended that you contact your service provider to confirm the settings required to connect to the internet.

In most instances, the Internet Provider/APN settings may need to be updated, as follows:

- In *Settings*, select *More?* then *Mobile Networks*
- Select *Access Point Names*
- Press the **Menu** button and select *New APN*
- Enter the settings for your network provider. For example, for Vodaphone UK:

Name	**Vodafone Internet**
APN	Internet
Username	web
Password	web
MMSC	http://mms.vodafone.co.uk/servlets/mms
MMS Proxy	212.183.137.12
MMS Port	8799
Authentication Type	PAP

- Press **Menu** button then **Save**

Note: The steps are highly device dependent.

3.1.6 Device-Specific Configurations

The following sections show options that should be enabled for each specific device.

3.1.6.1 Samsung Galaxy Note

- Ensure that the time-out on the capacitive action buttons is set to the longest, or no time-out.
- Ensure that the Camera is set to Lowest Resolution and Highest Compression/Lowest Quality.
    - Run the camera app.
    - Select the 'Settings button' bottom left hand corner.
    - Select Edit Shortcuts.
    - Add Image quality and Resolution to the top bar by dragging the icons.
    - Exit out of Shortcuts.
    - Click the Image Quality Icon and change to 'Normal'.
    - Click the resolution icon and change to '800x480'.

3.1.6.2 Samsung Galaxy Mega

- No DropBox or Samsung account.
- All Samsung features left as default
- SBeam and NFC turned off when started.
- Settings:
    - Display:
        - Screen timeout: 1 or 2 minutes
        - Touch Key Light Duration: 6 seconds or Always On.
- Camera:
    - Change Image Resolution down to 3.2Mp or less.

Note: To enable developer settings on the Samsung Galaxy devices (especially the S4 and Mega) (for application testing or to enable Unknown Sources for Side-Loading apps):

- Settings/more/About
- Click anything 7 times in a row.
- Back
- Developer Options

3.1.6.3 Motorola/Symbol/Zebra Windows devices

e.g. TC55, TC65, TC67, TC75, etc

The application to be used is DataWedge.

Create a profile for the application.

- Menu, New Profile, enter a profile name (e.g. C-ePOD)
- Ensure the profile is enabled.
- Enter the Associate App by selecting CALIDUSePODv3 (com.obslogistics.epodandroid.v3) from the list, and selecting all activities (com.obslogistics.epodandroid.v3.*)
- Ensure Keystoke Output is enabled.
- In this section, click Basic Data Formatting and ensure that this is enabled, Send data is checked and Send ENTER Key is checked.

3.1.6.4 Intermec CN51

Disable showing of soft keyboard (as this device has a keyboard)

- Turn off soft keyboard through android settings/keyboard settings - much better result with no effort.
  - Language & Input settings
  - AOSP Keyboard settings
  - Input Languages - add No Language (QWERTY)
  - First time the keyboard pops up, long-press the space bar and select No Language (QWERTY)

Ensure scanner appends CR/LF to data

Note: There is software to configure the device (download from ftp://epsfiles.intermec.com/eps_files/eps_download/setup.exe), however CN51 isn't included as a device in this software, so probably woefully out of date.

Use the barcode provided by Intermec instead:

This should configure adding the automatic ENTER of barcodes.

3.1.6.5 M3 SM10

This device features a 2D scanner and can scan either 2D (e.g. QR or Datamatrix) or linear barcodes.

The device can also be purchased with a 1D scanner or no scanner at all.

The application to be used to configure barcodes is ScanEmul.

Note: These settings are untested.

Ensure Is Enabled is checked.

Ensure Scanner Button is unchecked.

Ensure End Character is set to ENTER

(Alternatively, PostFix can be set to a return or newline character.)

Code Types can then be configured if the types of barcodes for scanning are to be restricted.

The physical scan buttons are positioned:

- On the bottom-right of the screen (shown as an oval)
- On the top of the right and left sides of the device, large black and silver buttons.

In order to install our application 'Unknown Sources' must be enabled:

1. Run dial-up application and type ?*#991#?.
2. Check ?unknown sources?.

3.1.6.6 Mptic S300

This device features a 1D scanner, and can scan ONLY the linear barcodes. For 2D (e.g. QR or Datamatrix) barcode labels, the camera scanner should be used.

The device has a resistive screen, rather than a capacitive one. This means that is requires a little more pressure to use, but a rigid stylus may be used for signatures.

The screen may be switched on by pressing the Home button on the device (the second-left of the five buttons on the front of the device).

The physical scan buttons are positioned:

- In the bottom-centre of the screen (labelled in yellow as SCAN)
- On the top of the right and left sides of the device, large yellow-labelled buttons

3.1.6.7 Honeywell Dolphin CT50

This device features a 2D scanner and can scan either 2D (e.g. QR or Datamatrix) or linear barcodes.

The screen may be switched on by pressing the Scan buttons on the top left or right of the device.

The power button is on the top of the device on the right-hand side.

To enable the scanner, go to Settings/Scanning/Default/Data Processing Settings, enable Wedge and add a suffix of \n.

3.1.6.8 Toughshield R200

Error when using the camera:

- On Barcode: App crash
- On Image: "please run this test on device"

This is because of a 'Beginner' settings against the camera - a training/configuration process must be run through before the camera will respond. Once run through on each device, this then works as expected.

3.1.6.9 Zebra TC55

Android version: 7.1 (Nougat)

To get to system settings:

- Method 1:
  - ♦ Drag from status bar at the top.
  - ♦ Press settings icon
- Method 2:
  - ♦ Drag up from the bottom.
  - ♦ Find and press *Settings*.

Scanning

By default, scanning is automatically enabled whenever the application you are using asks for entry through a text box.

For more sophisticated functionality, scanning must be configured through the DataWedge application.

To access this:

- ♦ Drag up from the bottom.
  ♦ Find and press *DataWedge*.

For most functionality, you will need to enable the scanner to press RETURN after scanning data, as follows:

- Select the default profile.
- Ensure the selected profile is enabled.
- Ensure *Keystoke Output* is enabled.
- In this section, click *Basic Data Formatting* and ensure that this is enabled, *Send data* is checked and *Send ENTER Key* is checked.

Disabling the Android keyboard

In the case where the device has a dedicated keyboard, the Android pop-up keyboard may be disabled.

Note: This differs depending on the keyboard installed - the instructions below are for the 'out of the box' configuration. If this is different, please speak to your device provider or configuration manager.

Method 1:

- Open any app that asks for text entry (for example, a browser), then click on that text box. The pop-up keyboard will display.
- In the lower-right corner, a keyboard icon is displayed - click it.
- Click the option *Show virtual keyboard* - it will be disabled.

Method 2:

- Open Settings (as described in other sections).
- Select *Settings/Languages & Input/Physical Keyboard*.
- Click the option *Show virtual keyboard* - it will be disabled.

You can now use the physical keyboard and the pop-up keyboard will not show.

Operation

The ESC key serves as an Android **Back** button - no function modifier is required.

The device can be powered from the dedicated power button, or through a press of the scan trigger. **Note:** The yellow scan button on the keyboard does not power on the device.

3.1.6.10 Motorola G7 Play

Android version: 9 (Pie)

System Settings

To get to system settings:

- Method 1:
  - Drag from status bar at the top.
  - Drag from status bar.
  - Press settings icon
- Method 2:
  - Drag up from the bottom.
  - Press *Settings*.

Getting connected to ADB:

- Connect to your PC using the provided cable.
- Wait for drivers to install on the PC.
- Change USB connection on device to *Transfer Files*.
  - Drag from status bar at the top.
  - Press *Android System: USB...* option.
  - Press *Transfer Files*.
- Wait for drivers to install on the PC.
- Enable Developer Options.
  - Open settings.
  - Select *System/About phone*.
  - Press *Build Number* 7 times, until you are shown a message saying "Developer Options Enabled".
- Enable *USB Debugging* and confirm.
  - Open settings
  - Select *System/Advanced/Developer Options*.
  - Press *USB Debugging*.
  - Wait for the drivers to install.
  - Enable *Stay Awake* from the same menu.
  - Optional: Enable *Stay Awake* from the same menu.

4 Did You Know

This guide is intended to help you discover features delivered with the *CALIDUS* ePOD application.

4.1 Mobile Device Application

4.1.1 Job Reference

The Job Reference shown on the device in all the screens is controlled through configuration against the site, through the *Display Job Code on PDA* setting. You can configure it to show the following by default:

- *Job ID*.
- *Job Code*.
- *SO Number*.
- *Customer Ref*.
- *External Ref*.

What you select here will be used on the device, as long as it contains a value.

If there isn't a value, the job code (the order number) will be displayed instead.

If there isn't a job code, the device will display the unique job ID (generated by *CALIDUS* ePOD).

The screens that display this are:

- Job List (the list of all jobs on the load)
- Job Details (when starting or arriving)
- Collection/Delivery screens (when confirming pallets)
- Customer/Driver Signature screen

On the device, there is also some functionality available to show all the references that the system holds against a particular job.

Simply click the job reference label and the device will show a popup of all the references for that job.

This functionality is available on the following screens:

- Job Details.
- Collection/Delivery.

It is not available on the Signature screen, however.

References:

- Site Admin Page
- PDA Job List
- PDA Job Details
- PDA Collection
- PDA Delivery
- PDA Job Confirmation

4.1.2 Change Navigation on TomTom WEBFLEET devices

On TomTom WEBFLEET devices, when you click the map icon on the Job Details screen, the application will switch to the WEBFLEET navigation app, where the order required can be selected from WEBFLEET's Work List.

However, the *CALIDUS* app also allows you to directly navigate to the job address instead. If you long-press on the map icon it will display a list of "Navigate without WEBFLEET Order?" options:

- *Once* - Only this job will navigate directly to the job address.
- *Remember for Load* - the button will default to navigate directly to the job address for all jobs on the load.

Long-pressing the map button again will give "Navigate with WEBFLEET Order?" options, allowing this to be reset.

References:

- PDA Job Details

4.1.3 Adding Extra Data Entry

CALIDUS ePOD includes the ability to add additional data entry prompts at many stages - this is called User Defined Fields and User-Defined Forms, or UDF for short.

You can add any number of any type of data entry fields to the following mobile device screens:

- Vehicle Checks - for different vehicle types.
- Load Start.
- Job Arrival Signatures.
- After arrival.
- Collection/Delivery Details.
- Additional Container information.
- Additional Product information - for individual product groups.
- Service Pre-checks - for different product groups.
- Service Information - for different product groups.
- Service Diagnosis - for different product groups.
- Service Post-checks - for different product groups.
- Terms and Conditions for customers and drivers for different job types.
- Exceptions - when cancelling, changing or clausing, and can be dependent on the reason code selected.
- Load End.

The configuration can be based on site or the job group the job is in. Other configuration levels are also available and indicated above. When part of a job matches this criteria, the mobile device application screen will display the UDF form for entry.

References:

- User-Defined Fields

4.1.4 Custom Device Styling

As part of most implementations, we offer to style the mobile device closer to your needs. Typically, the standard setup of the application and styling results in your logo being displayed on the device, with most information displayed as required.

However, almost all of the application can be styled to some degree, in terms of size, colour, whether the items are displayed or not and in some cases position on the screen.

The most common styling elements concern the following:

- Job List
- Collections/Deliveries
    - ♦ Container List
    - ♦ Product List
- Services
    - ♦ Service Products
- General
    - ♦ Terms

Note that you can configure or remove elements or add functionality to screens through the standard Site, Job Group and UDF configuration.

References:

- Custom Device Styling
- Site
- Job Groups
- UDF Configuration
- User-Defined Fields

4.2 Administrative Console

4.2.1 Opening Multiple Tabs

Sometimes you will find it useful to have multiple pages open from the *CALIDUS* ePOD Admin application, for example for looking up customers.

Any link (usually denoted with an underline) in a page can be clicked while the Control key (Ctrl) is held down, and that will generally open up in a new tab or window on the machine.

You can start a screen in another tab or window from the menu - click the icon to the right of the menu item and this will open in a new tab or window.

Note: This functionality is typically dependent on the capabilities of the browser being using, so check capability and settings.

Note: The last screen you open from the menu is the screen for which help will be displayed when you click the **Help on this screen** button in the screen title - opening multiple tabs like this may result in unexpected results, so in this case it is better to search for or navigate to the screen for which you require help using the *CALIDUS* Assist home page and search facilities.

References:

- Admin User Guide

4.2.2 Adding Data to Results tables

Most screens allow you to show or hide the columns in the results table by clicking on a **Select Columns** button. When you press this, the screen displays a pop-up of all the columns that can be shown or hidden. There are some columns that you can't hide - these will not be shown on this list.

To show or hide the columns, check or un-check the items in the list respectively. When you click **Save**, the changes will be applied to the results table. If you click **Close** (or anywhere else on the screen behind), the screen will *not* make the changes.

This is especially useful on the Jobs screen, where there are dozens of columns shown. You can customise this based on your business requirements. For example, if you use products, you can show the product description and quantity on the jobs results table. If you are dealing with costs, charges and total value, to can see the charge information, quantity and value as well as the total product value here as well.

The application will remember your settings for the screen on that particular browser on that machine.

References:

- Admin User Guide

4.2.3 Using your Business' Terms

CALIDUS ePOD is in the process of being updated so that the main screens will allow you to define your own terms that relate to standard system names.

For example, what the system calls a "Load", you might call a "Manifest" or a "Workload".

You can use the Terms Maintenance screen to define these terms, to make the system more comfortable for you to use.

Note: When you change a term and apply it, it changes for all Admin users.

At this time, this is limited to the following screens:

- Loads
- Jobs
- Job Details (Products and Containers)
- Job Assign
- Job Sequencing
- Customer Maintenance
- User Tracking
- Import/Export Audit

As we update the system all the time, this list will grow.

References:

- Terms Maintenance

4.2.4 Tracking on a Map

The mobile device commonly tracks its position and tells the system where it was when actions are taken. The system stores this information and can be displayed in the User Tracking screen.

This screen can be used on its own to select data and then see the point on a map, if co-ordinates are provided.

However, you can also see this from different areas of the system, pre-selecting the data based on from where the screen was called:

- Vehicles
- Users
- Loads
- Jobs

When you go to the User Tracking screen from these screens, the data is pre-selected based on from where it was called.

If you run the screen like this, or if you choose to see data from specific loads, jobs, users or vehicles, the screen will also display a **Map** button in the header, which will show all the tracking waypoints linked together.

References:

- User Tracking
- Vehicles
- Users
- Loads
- Jobs

4.2.5 Customising the Logo

You can change the logo displayed in the top-left of the Admin system if you want to.

This can be changed in the Site screen.

Note: When you change this, it changes for all Admin users who use this site.

References:

- Site

4.2.6 Customising Completion Reports

At this time, OBS Logistics design all completion (POD/POC/Service) reports. However, there are normally some elements that you can easily change in the system.

If you change the Site or Job Group logo, this will typically change the logo displayed in the Completion report.

If you change the Site Name, Address and contact details, this will typically change the address in the Completion report. Simply find the customer with the same code as the Site ID and change it there.

Alternatively, some reports use the Job Group address instead - simply find the customer with the same code as the Job Group and change it there.

References:

- Site
- Job Groups
- Customers

4.2.7 Maintaining Reference Data

If you are more comfortable maintaining standing reference data in a spreadsheet, you can achieve this in *CALIDUS* ePOD as well.

Several Standing Data Maintenance screens allow you to:

- Download a template.
- Download existing standing data.
- Upload new or modified data.

The reference data that can be modified this way is:

- Codes - including reason codes, DU types, UOMs and Clause codes.
- Vehicles.
- Service Products.
- Service Activities.
- Vehicle Products.
- Customers.
- Time and Expense categories.
- Users - drivers and admin users.

The screen will usually show you an **Upload** button to show these options.

Note: Be aware that, if *CALIDUS* ePOD is linked to a transport management system, it's likely that all this standing

reference data is updated automatically from that system, so check before modifying data in *CALIDUS* ePOD.

References:

- Codes
- Vehicles
- Service Products
- Service Activities
- Vehicle Products
- Customers
- Time and Expense Categories
- Users

4.2.8 Downloading Photos

When the driver completes jobs, part of their process may be to take photos on the device. These photos are stored back in *CALIDUS* ePOD and you can view them in various screens, like the Jobs screen - you can click on a job, use the **Select** action button and click on the *Photos* tab to view any photos that were taken.

Your browser can also view, zoom in and download the photos directly from this screen. The process is slightly different per browser - the instructions for Chrome (and any other browsers based on Chromium) follow.

To view the photo full-screen:

- right-click on the photo and select *Open image in new tab*.

To zoom in:

- Use Chrome's web page zoom commands from the main Chrome menu.
- As a shortcut to this, you can hold down the control (Ctrl) key on your keyboard and scroll up to zoom in, or scroll down to zoom out.

To download the photo:

- Right-click on the photo and select *Save image as...*.
- In the pop-up *Save as* file browser, name the file and save it to anywhere on your PC or network-accessible area.

You can do this from the image in *CALIDUS* ePOD or on an image you opened full-screen.

Note: This functionality is typically dependent on the capabilities of the browser being using, so check capability and settings.

References:

- Jobs
- Container Details
- Loads

4.3 Other Systems

4.3.1 Providing Customers Tracking Information

CALIDUS ePOD will execute your jobs for you, provide you with all the information gathered from the customer and even automatically email reports of the finished jobs to your customers, if you want it to. But what if you need more?

OBS Logistics Ltd also provide *CALIDUS* Portal TTM - a track and trace module that you can provide access to your customers so that they can:

- See ETAs for their jobs.
- Track the vehicle delivering their jobs.
- Query the quantities delivered or collected.
- View and print the completion report.

CALIDUS Portal is also a really useful tool for your transport team, to help them plan and visualise the amount of work that they have to complete, and your customer service team will appreciate the available tools for them to help with their workflow when dealing with customer queries.

Ask your OBS Logistics representative about *CALIDUS* Portal and see what it can do for you, or visit our website for an overview:

https://www.obs-logistics.com/obs-logistics/our-software/track-and-trace

References:

- EPOD-TTM Interface

4.3.2 Communicating with Other Systems

You may be using *CALIDUS* ePOD with your own planning system, say an enterprise resource planning (ERP) system, a warehouse management system WMS or transport management system (TMS).

OBS Logistics Ltd offers a full suite of management solutions across a range of different activities and *CALIDUS* ePOD works with them. Ask your OBS Logistics representative about the full *CALIDUS* suite of products, or visit our website here:

https://www.obs-logistics.com

CALIDUS ePOD can receive loads, jobs and set-up (standing) data from your planning system - we support proprietary CSV and XLS uploads, as well as industry-standard XML web services so your system can send this information to us without you having to key these jobs in manually.

When jobs are complete, *CALIDUS* ePOD can automatically send out updates to these system, through a variety of industry standard mechanisms.

Your customers may also have systems that they want updating, for example, pallet network tracking systems. *CALIDUS* ePOD has standard interfaces for the following customer systems:

- Dynamics NAV.
- Palletforce.
- Pall-Ex.
- TPN - The Pallet Network.
- Europa Shipping Services.
- GAP.
- Palletline.
- Hazchem.
- TomTom WEBFLEET.

You can configure a job to update any number of systems by creating export configurations and attaching them together against a job group or your site, or even against an owner of the job, so you can update all your customers with the right information, when they need it.

If the system you are interested in isn't on the list, don't worry - it may be that the other standard interfaces the product supports will get what you need. For example, the system can push the completion reports out with some basic information, so they can be added to your document management system.

Failing that, OBS Logistics can develop an interface just for you - contact your OBS Logistics representative for more

information.

References:

- CALIDUS ePOD Interfacing
- Standard Interface Configuration

4.4 *CALIDUS* Assist

4.4.1 Searching for Help

Although all pages from your *CALIDUS* system link directly to the appropriate page in this *CALIDUS* Assist guide, you can search for help on anything in the system using the search bar. It depends on how you have *CALIDUS* Assist configured, but this search bar is normally either in the title at the top of the screen or in the toolbar on the left.

Did you know that you can activate this search at any time using a shortcut key combination? Hover over the Search bar now and you will see it sells you the hot-key combination, typically ALT-F or ALT-SHIFT-F. Hitting those keys together will activate the search box and you can type in what you're looking for. Be aware that these shortcuts are dependent on the browser that you are using, so check for compatibility first.

If you know the name of the page, just type it there and click the **Go** button. If you want to search for any text in the page, click the **Search** button instead, or just hit enter for *CALIDUS* Assist to do it for you. Typically, as you type, the search bar will quickly offer you some matches that might be what you're looking for - if it is, just click the suggestion and Assist will take you there.

Some tips on searching:

- If you enter multiple words (like "fixed drop scheduling") without quotes, the search routine will find you pages that match any of the words, but ordered in the most likely order (i.e. with most matches of most words)
- If there is a page called "fixed drop scheduling", you will be taken straight to it.
- If you enter your search with quotes i.e. "fixed drop scheduling", it will find that specific phrase in the pages, rather than any of the words.
- If you enter plus instead of space i.e. fixed+drop+scheduling, you will only get pages in the results that have all 3 words in them, anywhere in the page, in any order.
- You can also control partial word matching with as asterisk. So let's say you are searching for a parameter called AUTO_SCHED something-or-other. Searching for AUTO_SCHED will not bring back any results, as there are no full words or phrases like that. But if you enter AUTO_SCHED_* instead, it will search for words *starting with* "AUTO_SCHED" and bring you back some matches.

4.4.2 Printing and Exporting

You can export pages from *CALIDUS* Assist using the *Print as PDF* tab in the tab bar, typically on the top of the screen.

You can export categories as a full document in the same way - all pages in that category will be included in the PDF in the order in which they are listed in the category.

5 Export File Naming

When the system automatically exports a file in FILE and FTP format, the users can control how the files are named.

This includes (but is not limited to):

- POD exports to Document Management Systems.
- XML exports of Job or Load completion.
- Pallet Network exports.
- Bespoke exports.

5.1 Prerequisites

The *CALIDUS* ePOD server host must have access to the destination.

5.2 Configuration

To enable the functionality, the system must be configured with an Export configuration, linked to the site or job group.

The configuration must be method FTP or FILE.

The Filename must be configured.

5.3 Operation

When the system exports the file, this is initially produced with the Job ID as the file name, plus the extension as required. For example:

- [EPL_JOB_ID].pdf.
- [EPL_JOB_ID].xml.
- [EPL_JOB_ID].jpg.
- [EPL_JOB_ID].tiff.

If the users configure the interface to FTP or FILE transfer, the application checks the configuration of the FILENAME parameter. This can contain plain text, plus certain job-level information and standard identifiers. All identifiers are to be placed in parentheses e.g. (DATE).

The following identifiers are replaced with the trimmed data in the field if present, otherwise "0":

- EPL_EXT_REF.
- EPL_OWNER_NAME.
- EPL_SO_NUMBER.
- EPL_CUST_REF.
- EPL_CUSTOMER_CODE.

The following are replaced directly with the untrimmed data in the field:

- EPL_SITE_ID.
- EPL_JOB_ID.
- EPL_LOAD_ID.
- EPL_JOB_CODE.
- EPL_PF_DEPOT.
- EPL_STATUS.
- EPL_AMENDED_FLAG.

General parameters:

- DATE - the date the message is attempted to be sent, in format "yyyyMMdd".
- TIME - the time the message is attempted to be sent, in format "HHmmss".
- UID - a unique ID for the file being sent in that batch.

Note: If the POD/POC export is split into separate POD/POC and Image documents (a parameter when creating the POD report), then the Image document is named as the POD/POC report, but with "_images" appended before the extension.

Examples:

Filename:

```
POD_(EPL_JOB_CODE)_(DATE)_(TIME)_(UID).pdf
```

would result in the following file name for Job Code "XYZ" send around 1030 on 30/11/2016:

```
POD_XYZ_20161130_103112_1.pdf
```

This is then sent to the configured system by the method indicated.

If the POD/POC is set to split images, the two files sent are:

```
POD_XYZ_20161130_103112_1.pdf
POD_XYZ_20161130_103112_1_images.pdf
```

5.4 Scope and Limitations

Special characters may not be used either in the literal portion of the file-name string or the data inserted:

- (- Open Parenthesis.
-) - Close Parenthesis.
- \ - Backslash.
- / - Forward Slash.
- : - Colon.
- * - Asteris.k
- ? - Question Mark.
- " - Quote.
- < - Less Than.
- > - Greater Than.
- | - Vertical Bar.

6 FAQ

Any frequently asked questions, responses and links to standard documentation can be found here.

Nothing specific yet.

7 Job List Sequence

Collection and delivery jobs will be ordered by the *CALIDUS* ePOD mobile device application in site/load/planned start date and time sequence by default.

However, if sequences are present on jobs, these are used in preference i.e. site/load/sequence/planned start date and time.

The following rules apply to this process:

- Jobs with sequence 0, blank or non-numeric values are seen as un-sequenced jobs and will always appear in the list after sequenced jobs. The driver can complete these un-sequenced jobs at any time, regardless of any configuration or sequencing of other jobs in the job list.
- If re-sequence checks are turned on in C-ePOD, only jobs with a sequence (i.e. not null or 0) are checked. So, if a load consists of the following jobs:
    - Job 1, no sequence, time 1200
    - Job 2, sequence 2, time 1100
    - Job 3, sequence 1, time 0900
    - Job 4, no sequence, time 1200
    - Job 5, sequence 3, time 1200
    - Job 6, sequence 3, time 0900
    - Job 7, no sequence, time 0900
- They will be ordered on the list as follows:
    - Job 3, sequence 1, time 0900
    - Job 2, sequence 2, time 1100
    - Job 6, sequence 3, time 0900
    - Job 5, sequence 3, time 1200
    - Job 7, no sequence, time 0900
    - Job 1, no sequence, time 1200
    - Job 4, no sequence, time 1200
- When the user attempts to start a job out of sequence, and re-sequence checks are enabled, this will work as follows:
    - The driver can't complete jobs 2, 5 and 6 before job 3.
    - The driver can't complete jobs 5 and 6 before job 2.
    - When the driver completes jobs 2 and 3, they can complete jobs 5 and 6 in any order.
    - Jobs 1, 4 and 7 are "wild cards", and the driver may complete these at any time, before or after any other job is completed.

8 Loading and Unloading

This guide will help you through the end-to-end process of the loading and unloading of jobs.

8.1 Overview

There are many different types of transport tasks typically undertaken:

- Deliveries from the transport depot to a customer location.
- Collections from a customer location to a transport depot.
- Direct deliveries from a customer location to another customer location.
- Trunking or shunting between transport depots.
- Multi-legged deliveries from one customer location to another, through several regional depots.

Each type of movement and the activities on each of the legs of that movement can require different configuration.

CALIDUS ePOD can treat each of these differently through use of a job group associated to the jobs, which controls the functionality that the driver must or should use to execute that particular leg of the order.

Specifically, loading and unloading of product at a depot can be treated as a special case, where perhaps these jobs might not explicitly be undertaken by the driver themselves.

CALIDUS ePOD can handle loading jobs at depots, unloading jobs at depots and the automatic return of items collected or not delivered back at the depot, even when those jobs are not planned into the load (ad hoc collections). The system can also control loading through a separate warehouse site, and ensure the transport leg does not start until the loading is complete.

The system can also help set up some of this functionality for you automatically.

The system has many several different ways of handling loading and unloading tasks:

- Single site
- Linked sites

8.2 Single Site

8.2.1 Basic functionality

External systems create these loading an unloading jobs, for example a transport management system.

Normal collection and delivery jobs are created normally.

Loading and Unloading jobs at a depot are created with a Loading or Unloading flag, depending on whether they are loading tasks at a depot or unloading tasks at a depot. This is then used to drive some special behaviour within the system.

For example, the mobile device displays these jobs as "Loading" instead of "Collection" and "Unloading" instead of delivery, for clarity.

Unloading back at the depot is controlled by the device.

Whenever items are collected from collection jobs, if there isn't a linked delivery job for that collection, an unloading job for that job will be created, linked (consolidated) with any known unloading jobs at the next depot. This will include the items collected.

Whenever any items are not delivered, the undelivered items are added to the next generic (empty) unloading job at the next depot.

The device will then control unloading of all undelivered or collected items at the next depot unloading job.

8.2.2 Advanced

EPOD can automatically create an unloading job from a provided loading job. So if it starts with loading at depot MYDEPOT at 0900, and no unloading job is present, an empty generic "Return to Depot" job will be created at the end of the job list, hidden from the driver, until it is needed.

8.3 Linked Sites

A site can be identified as a warehouse rather than as a transport depot.

For example:

- WARR - Warrington transport depot
- WARR-W - Warrington Warehouse

Typically, you (or your transport system) would create a load for delivery in the transport depot (e.g. "LOAD1") for all the collections and deliveries, with an unloading (return to depot) jobs.

You would then create another load in the warehouse site (e.g. "WLOAD1") just for the loading of the items for delivery. See Loading Options below for the different mechanisms and the functionality they support.

You can then link the warehouse load to the transport load. Through configuration, the system can block the transport load from being started by the transport drivers until the loading load is completed.

Regardless, the transport load will still support all of the above "single site" functionality, controlling unloading of collected or undelivered items.

8.3.1 Loading Options

You can create the loading Jobs as a single job, with all products to load. This is then an easy way to bulk load all products for the deliveries on the transport load. This method does not control the sequence the jobs need to be loaded. This method also does not update the delivery jobs in the transport depot if there is a discrepancy at loading.

You can create loading jobs as one per delivery job, and then link them all together i.e. consolidate them so that they look like a single job to the loaders. This then would allow the loaders to load all the items together, and would update the delivery jobs in the transport depot if there is a discrepancy at loading. This method will not consolidate all product quantities together if the same product was being loaded for multiple deliveries. This method also does not control the sequence the jobs need to be loaded.

You can create loading jobs as one per delivery job and not link them together. Instead, you can sequence them in the order in which they are to be loaded. This method controls the sequence the jobs need to be loaded. This method also updates the delivery jobs in the transport depot if there is a discrepancy at loading.

9 Functional Description

This guide will help you through the end-to-end process of the consolidation and de-consolidation of jobs.

9.1 Overview

Consolidation is the process of identifying multiple jobs that the driver can complete at the same time in the mobile device application. Usually, the jobs that can be consolidated are to the same customer or same address, but not necessarily so. For example, when making multiple deliveries in the same building, the customers may be different, but they are all delivered to the same gatehouse. Conversely, jobs to the same address may not require consolidation, for example deliveries to a hospital, where the driver must deliver these to different departments.

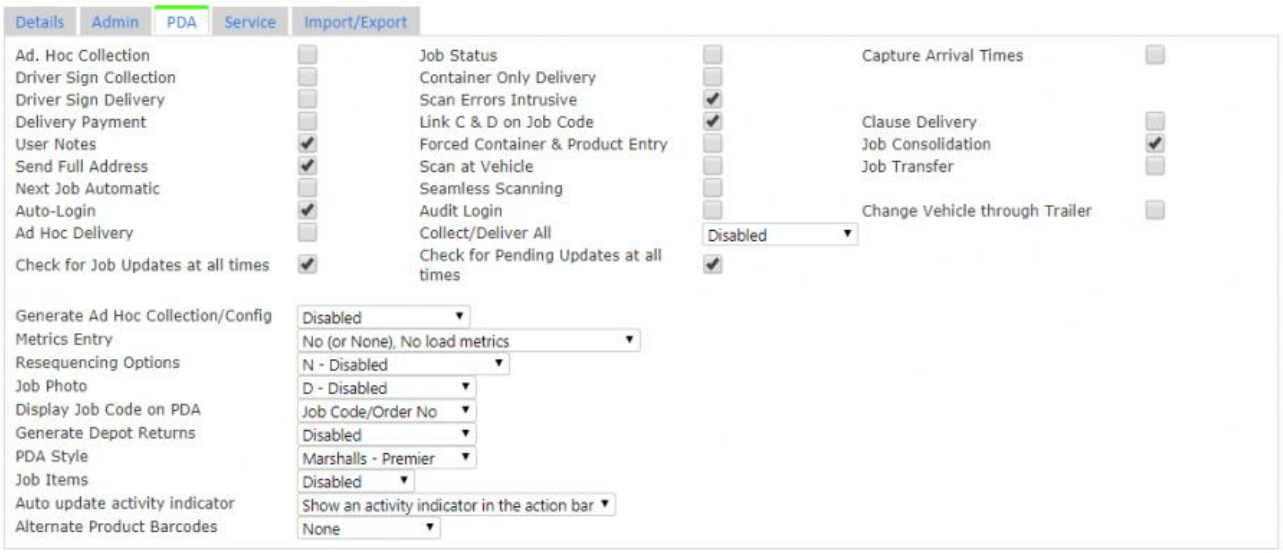
De-consolidation is the act of breaking a consolidation, or breaking items or jobs out so that the driver can deliver them separately. In the examples above where you have consolidated jobs to one address, the driver may then find that some of the items or jobs must be delivered to a different place. In this case, the driver has options to break these jobs or items out of the consolidation and do them separately.

9.2 Configuration

You can set the site setting for Job Consolidation to allow all jobs to be consolidated manually by the driver on the device.

Note: If you do not set this, the application will check the job group setting.

This is through the Admin Site Maintenance screen.

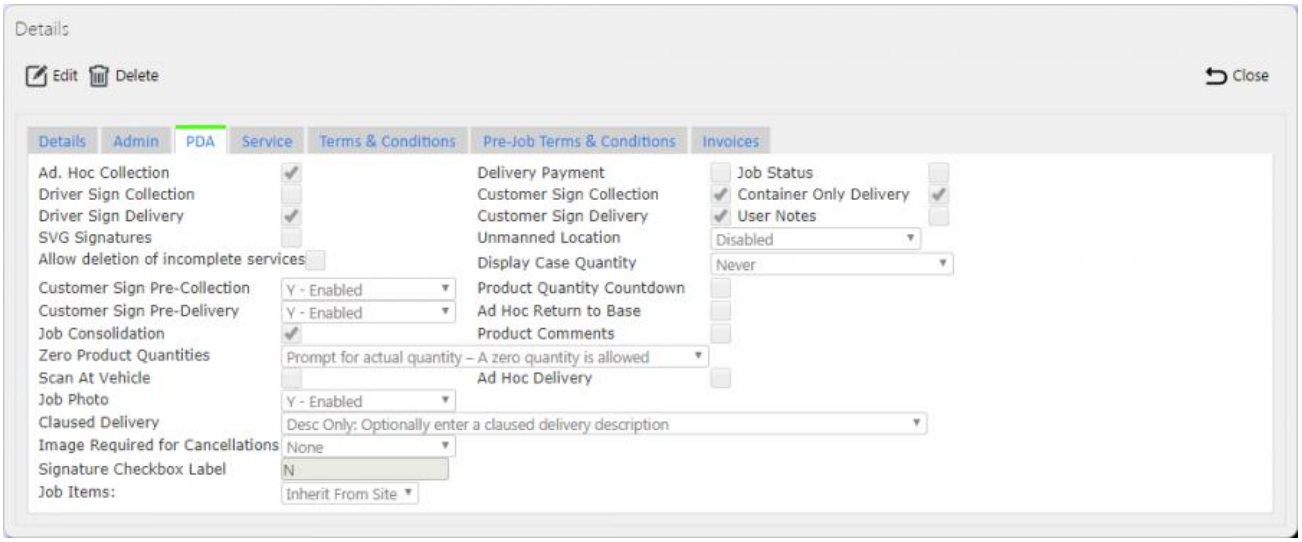


Site Consolidation Setting

You can set the job group setting for Job Consolidation to allow all jobs specifically for that Job Group to be manually consolidated by the driver on the device.

Note: If you set this, this overrides the site setting.

This is through the Admin Job Groups Maintenance screen.



Job Group Consolidation Setting

9.3 Consolidating Jobs to/from External Systems

Whenever an external system sends loads and jobs to *CALIDUS* ePOD, they can indicate whether the jobs should be consolidated in the interface, by setting a unique *Linked ID* against jobs in the load.

So, if the load has 5 jobs with the following *Linked ID*s:

Job	Sequence	Linked ID
Job1	1	
Job2	2	1
Job3	3	2
Job4	4	1
Job5	5	2

The mobile device will display this as:

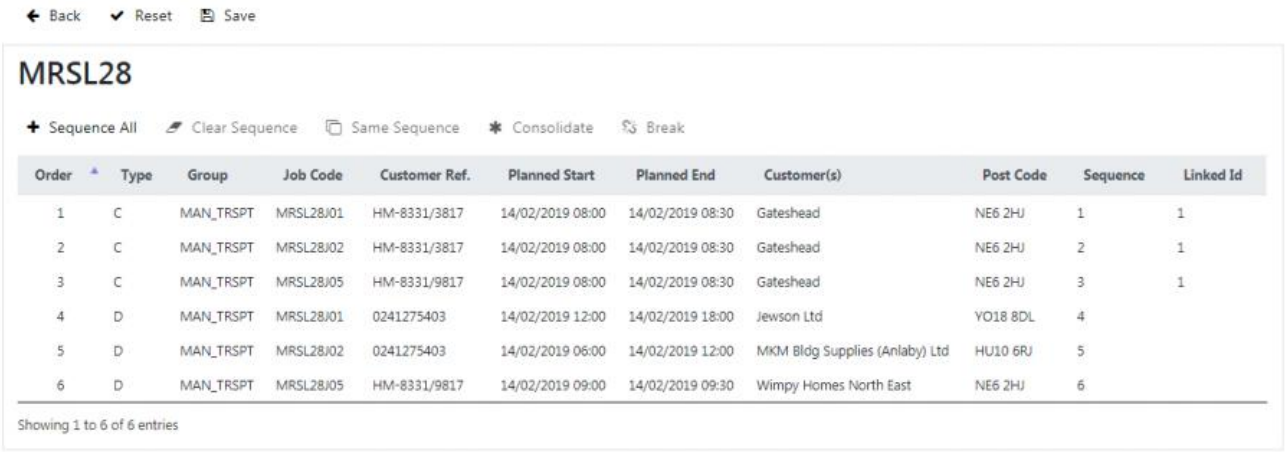
Displayed	Notes
2 Consignments	Consisting of jobs Job1 and Job3.
2 Consignments	Consisting of jobs Job2 and Job4.
Job5	not consolidated.

Note: This over-rides the sequence of jobs in the jobs list - the mobile device application will display all jobs with the same *Linked ID* as a single row on the job list, at the point where the first job would have been shown. You can get more details on how the application lists jobs on the device in the Job List Sequence section.

You should also note that, when the driver has completed jobs, and if they have consolidated or de-consolidated jobs during the course of completing the jobs, *CALIDUS* ePOD will send back that information to the external system (in *Link ID*), so that the external system is aware that these locations may need consolidating or breaking in the future. This allows the external system to learn the best consolidations.

9.4 Consolidating Jobs in Admin

You can consolidate jobs together on a load using the Job Sequencing screen in the *CALIDUS* ePOD Admin system.



Order	Type	Group	Job Code	Customer Ref.	Planned Start	Planned End	Customer(s)	Post Code	Sequence	Linked Id
1	C	MAN_TRSPT	MRSL28/01	HM-8331/3817	14/02/2019 08:00	14/02/2019 08:30	Gateshead	NE6 2HJ	1	1
2	C	MAN_TRSPT	MRSL28/02	HM-8331/3817	14/02/2019 08:00	14/02/2019 08:30	Gateshead	NE6 2HJ	2	1
3	C	MAN_TRSPT	MRSL28/05	HM-8331/9817	14/02/2019 08:00	14/02/2019 08:30	Gateshead	NE6 2HJ	3	1
4	D	MAN_TRSPT	MRSL28/01	0241275403	14/02/2019 12:00	14/02/2019 18:00	Jewson Ltd	YO18 8DL	4	
5	D	MAN_TRSPT	MRSL28/02	0241275403	14/02/2019 06:00	14/02/2019 12:00	MKM Bldg Supplies (Anlaby) Ltd	HU10 6RJ	5	
6	D	MAN_TRSPT	MRSL28/05	HM-8331/9817	14/02/2019 09:00	14/02/2019 09:30	Wimpy Homes North East	NE6 2HJ	6	

Job Sequencing screen

You can access this screen from the Loads screen, by clicking the *Job Sequencing* action button on the row for the load on which you want to consolidate jobs.

You can select a job by clicking on it - clicking on it again will deselect it. When you select a job, the will be highlighted blue.

When you select two or more jobs, clicking the **Consolidate** button will set the *Linked ID* of all the jobs to the same value.
Note: If some of the selected jobs are already linked with this ID, all the jobs with this linked ID will be updated as well.

When you select one or more jobs with a link ID, clicking the **Break** button will clear the linked ID of all the selected jobs. Any jobs remaining with the same linked id that are only present once on the load will also be cleared.

You can find more details in the Admin User Guide, in the Job Sequencing section.

9.5 Executing Consolidated Jobs on the Mobile Device

When you have consolidated jobs, the process is combined, and the driver has a few more options available to them.

The driver will start the mobile device application and log in to the application by:

- entering their user name.
- selecting the vehicle.
- clicking the **Log In** button.

The driver will then be allocated a load and the application will display it in the job list.

When you have a single job, the device job list typically displays the job identifier. When you have consolidated jobs, they appear as "X Consignments" instead.

The driver has several menu options available to them on the job list for consolidation and de-consolidation - these are covered in detail in the following sections.

The driver can select consolidated jobs from the Job List in the same way as an ordinary collection or delivery job.

If the driver chooses to cancel consolidated jobs (i.e. non-delivery, non-collection), they can choose to cancel only one of the consolidation, or to cancel all of the jobs.

When the driver views the consolidated jobs by pressing the row on the job list, the job details screen displays the number of jobs in the consolidation and **<** and **>** buttons so that they can scroll between the jobs and see the details.

The job details *information* tab shows any instructions from all of the jobs in the consolidation.

The driver only has to press **Start Job** and **Arrive Job** once to start or arrive to all of the jobs in the consolidation - all jobs are stamped with the same time.

The application will prompt the driver to enter an arrival signature once, if you have configured arrival signatures - the signature is referenced against all jobs.

The application will prompt the driver to enter pre-job UDF once only, if you have configured pre-job UDF.

The info tab on the collection/delivery screen has similar options to the job details screen, in that the screen will display the first job in the consolidation, the count of jobs, and **<** and **>** buttons so that they can scroll between the jobs and see the details.

Warning: Each job has its own job UDF, which the application displays as you move between each job using the buttons above, if you have configured UDF for their job group. Each job in the consolidation must have its UDF completed before the jobs can be completed.

The driver has options against items to break items out, which will break the whole job out of the consolidation - this process is covered in more detail in the following sections.

The driver is required to enter one customer signature (if you have enabled customer signatures for this job type).

The driver is required to enter one driver signature (if you have enabled customer signatures for this job type).

The application prompts the driver to enter job photos once. The photos taken are stamped against all jobs.

- 

Job Details

9.6 Consolidating Jobs on the Mobile Device

There are multiple methods to consolidate jobs.

Method 1:

- The driver can long-press on one of the jobs to be consolidated.
- The driver can then select the *Group Jobs Together* option.
- The device will display a slightly different job list, allowing jobs to be consolidated together.
- The driver then clicks on the jobs to select and highlight those that are to be grouped together. If they click the job again the application will de-select it. If the driver selects a job that is already consolidated, all of those jobs will be selected and highlighted.

- Alternatively, the driver can scan an item from the job - when the application identifies the job, it will select that job for consolidation. Note that you can configure whether this functionality is available.
- When the driver has selected the required jobs, they press the **Consolidate** button.

Method 2:

- The driver can press the **Menu** button on top-right of the Job List screen.
- The driver can then select the *Consolidate* option.
- The driver will be asked to select what types of jobs they want to consolidate - collections or deliveries.
- The device will display a slightly different job list, allowing jobs to be consolidated together.
- The driver then clicks on the jobs to select and highlight those that are to be grouped together. If they click the job again the application will de-select it. If the driver selects a job that is already consolidated, all of those jobs will be selected and highlighted.
- Alternatively, the driver can scan an item from the job - when the application identifies the job, it will select that job for consolidation. Note that you can configure whether this functionality is available.
- When the driver has selected the required jobs, they press the **Consolidate** button.

Note: In order for the driver to group jobs together, they must be of the same type i.e. collections or deliveries.

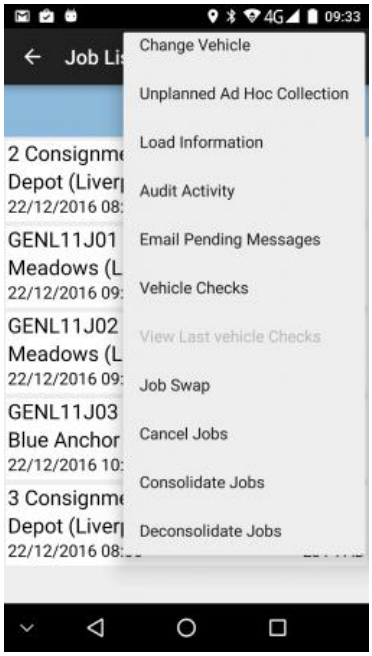
The application does not restrict consolidation in any other way, for example there is no restriction that the jobs must be for the same customer, job group or to the same address.

When jobs are consolidated, they show on the job list as a summary number of consignments for example "3 Consignments".

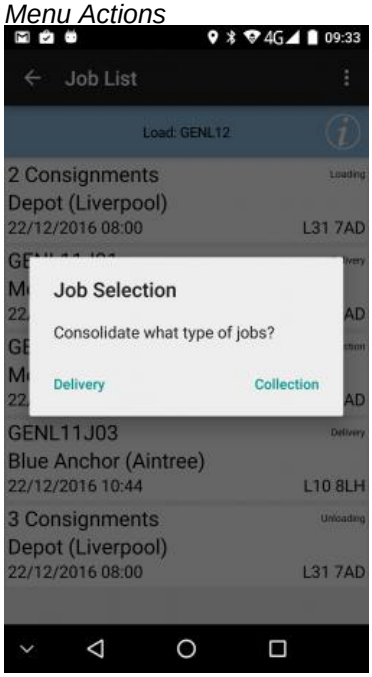
- 

Job list

Ready for **What's Next, Now**™

- 

Menu Actions

- 

Select Job Type

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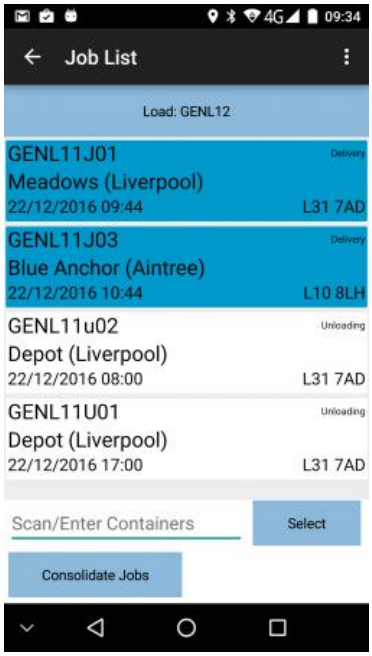
- 

Consolidating Jobs

9.7 De-consolidating Jobs on the Mobile Device

Jobs can be de-consolidated through many methods:

Method 1:

- The driver returns to the Job List.
- The driver long presses on a consolidated job entry to bring up the options.
- The driver can then select *Break Group* to split the consolidation back to the original component jobs. The Job List will be re-displayed, showing each of the previously-consolidated jobs each on a single row.

Method 2:

- The driver can click the **Menu** button on top-right of the Job List screen.
- The driver can then choose the *Deconsolidate* option.
- The device will display a slightly different job list, allowing jobs to be consolidated together.
- The driver then clicks on the jobs to select and highlight those that are to broken out of consolidation. If they click the job again the application will de-select it.
- Alternatively, the driver can scan an item from the job - when the application identifies the job, it will select that job to be broken out of the consolidation. Note that you can configure whether this functionality is available.
- When the driver has selected the required jobs, they press the **Deconsolidate** button.

Method 3:

- Whilst the driver is collecting or delivering the consolidated jobs, they can choose an item to be broken out of the consolidation in the items/containers list, by long-pressing on the item and selecting the *Deconsolidate Job* option there.

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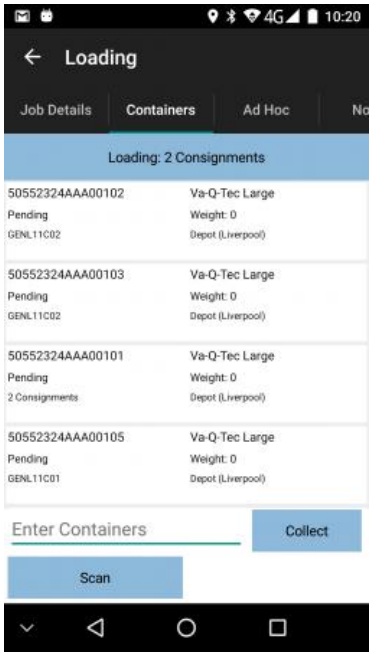
- 

Containers Tab, showing single and consolidated containers

Ready for **What's Next, Now**™

10 Appendix A: Document References

A.1 References

Ref No	Document Title & ID	Version	Date
1	UG 291094 EPOD Admin User Guide	4.5.00.02	08/04/2019
2	UG 291097 EPOD Client User Guide	4.0.2.21	02/04/2019

A.2 Glossary

Term or Acronym	Meaning
General Definitions	
EPOD	Electronic Proof of Delivery. The OBSL EPOD system is *CALIDUS* ePOD. This also comprises the basis of the Service Completion system *CALIDUS* eServ.
Server	The portion of the *CALIDUS* ePOD/eServ systems that controls all the data and sends information to and receives updates from the mobile device.
Mobile Device; PDA	The device used by the driver to perform the jobs. Typically an Android mobile device or tablet.
Site	The site usually defines the depot, business or the transport group (carrier). It can be set to any value required by the customer. All transactions data (for example, loads and jobs) and standing data (for example, vehicles and uses) belong to a site. An EPOD user, on a device or in the Admin screen, can only see data for one site at a time.
Load	A single journey for the driver with a set of work attached. A load is identified by a unique load ID. This may also be referred to as a worklist or workload.
Job	Also Consignment. A single task for the driver as a specific location. This could be the collection of goods or the delivery of goods. Jobs may also be Services (for example, servicing, installing or de-installing a boiler). A job is identified by a unique job ID but can also have other references held against the job (e.g. job code, SO number, customer reference and external reference).
Job Group	Jobs must be tagged with a Job Group. All jobs tagged with a single job group are processed in the same way. The job group has configuration associated to it to control such items as: POD/POC Report settings; Pre-Job actions (such as signing at a gatehouse); Post-Job actions (such as who signs for the item, are photos required); configurable fields required for entry for the jobs; Terms and Conditions displayed and; driver/user process (such as photos required for cancellation, comments/notes allowed). The job group can be used for any or all Sites, and the configuration against the job group can be different in each site. Job Groups can also be restricted from Admin and Remote users, so that certain users only see jobs for certain groups.
Container	A generic term for any object that contains the items being collected or delivered. Examples of containers are: Pallet; Package; Carton; Item; Cage. A special container "Loose Products" - see Product below. A container is identified by a container ID which is unique to this physical container.
Product	A product is any goods that are being collected or delivered where the product has a 'Product Code' which identifies what the product is but which does not uniquely identify each individual item. A product will also have a quantity associated with it to indicate how many items of this 'Product Code' are being collected or delivered. Products can either be processed within a 'Container' or as 'Loose Products' without a 'Container'.
Owner	The owner of the order that created the job. Typically this is the sales team that took the order and will be responsible for dealing with queries from the customer regarding the status.
Operator; Executor	The Site (depot or carrier) that is executing the load or loads that are involved in the delivery of the items.
Item Related Definitions	
Job Code	A reference associated with a job or job(s). This reference is common to connected jobs, for example this would be the same on both the collection of goods and the associated delivery of the same goods. Typically this would be the transport unique reference.
SO Number	A reference associated with a job which indicates the "Sales Order Number" this job is associated with.
Customer Reference	A reference associated with a job which has been provided by and will be recognised by the customer.
External Reference	

Term or Acronym	Meaning
	A reference associated with a job which does not match any of the existing references, usually because it has been provided by an external system.
Pallet	An alternative for 'Container'. The term pallet is used when the operation only uses portable platforms as the container for goods.
Package	An alternative for 'Container'. The term package is used when the operation only uses boxes or wrapping as containers for goods.
Package Code	A code representing the type of 'Container'.
Package Desc	A description of the type of 'Container'.
Product Code	A code which identifies what a product is.
Item	A generic term for any individual item that can be collected or delivered. An item can represent a 'Container' or a 'Product'. This can also be used as an alternative for 'Container' when the operation only treats the goods as individual items, i.e. not as identifiable products.
Service Item	An item which will be serviced by a service job. See action 'Service'.
Issue Life	The time after which an item is no longer fit for purpose.
Pack Size; Case Quantity	A product may consist of a full quantity of items, inside a pack. The Pack Size (or Case Quantity) defines the amount of this product contained in a single pack. For example, if there are 85 items to deliver, with a pack size of 24, the number of full packs is determined to be 3 (24 * 3, or 72), with the remaining (13) being 'loose' quantity. This is displayed as "3/13" on the mobile application.
UOM; Item Type	Unit of Measure; The major (case) UOM. This can optionally be displayed on the mobile device when changing product quantities.
Product Type	A classification of the product being delivered. For example, a company may deliver 7 different mortar products and 80 different concrete slab products. The Product Types may be set to "MORTAR" and "SLABS". This may be used to attach additional configuration, changing the data required when collecting or delivering these product types.
Status Definitions	
Status	An indicator of how far through the processing a 'Job', 'Container' or 'Product' has progressed.
Pending	A status indicating that the processing has not yet started, but is required to be completed.
In Progress	A status indicating that processing has started but not yet finished.
Complete	A status indicating that the 'Job', 'Container' or 'Product' has been collected or delivered.
Complete (Amended)	A status indicating that the 'Job', 'Container' or 'Product' has been collected or delivered but that some changes or amendments have been made. This means that not everything that was planned to be collected or delivered was collected or delivered, some items may have been cancelled or some products may only have had some of the planned quantities collected or delivered.
Complete (Claused)	A status indicating that the processing has been finished but that a 'Clause' condition has been recorded for this item.
Claused	See 'Complete (Claused)' and action 'Clause'.
Cancelled	A status indicating that the processing of this item or job is no longer required.
Cancelled at Collection	A status indicating that the delivery of a container or product is no longer required because the associated collection of this container or product was cancelled.
Submitted	An optional status that applies only to a 'Job' and which occurs after the 'Job' has been completed. This indicates that any time and expenses information recorded for the 'Job' has been submitted back to the server and can no longer be altered.
Action Definitions	
Start	An action associated with a 'Job' meaning the driver is about to start the processing of this job or jobs. This action will mark the job(s) with a status of 'In Progress'.
Arrive	A conditional action associated with a 'Job' meaning the driver has arrived at the location the goods should be collected from or delivered to.
Continue	An action associated with a 'Job' meaning the driver has previously performed the 'Start' and/or 'Arrive' action and has exited the processing screen but is now going to continue the processing.
Collect	An action associated with a specific 'Container' or a 'Product' meaning the driver has collected the 'Container' or 'Product'. This action will mark the 'Container' or 'Product' with a status of 'Complete' or 'Complete (Amended)'.
Collect Claused	An action associated with a specific 'Container' or a 'Product' meaning the driver has collected the 'Container' or 'Product' but with a condition under which the collection was accepted. This action will accept the clause condition and then mark the 'Container' or 'Product' with a status of 'Complete (Claused)'.

Term or Acronym	Meaning
Deliver	An action associated with a specific 'Container' or a 'Product' meaning the driver has delivered the 'Container' or 'Product'. This action will mark the 'Container' or 'Product' with a status of 'Complete' or 'Complete (Amended)'.
Deliver Claused	An action associated with a specific 'Container' or a 'Product' meaning the driver has delivered the 'Container' or 'Product' but with a condition under which the delivery was accepted. This action will accept the clause condition and then mark the 'Container' or 'Product' with a status of 'Complete (Claused)'.
Clause	An action associated with a specific 'Container' or a 'Product' that has already been collected or delivered meaning the collection or delivery has been accepted with a condition. This action will accept the clause condition and then mark the 'Container' or 'Product' with a status of 'Complete (Claused)'.
Cancel	An action associated with a 'Job', 'Container' or 'Product' meaning the collection or delivery will not be performed for this 'Job', 'Container' or 'Product'.
Submit	An optional action which can conditionally be carried out after a 'Job' has been collection or delivered meaning that any/all required expense or time recording for this 'Job' has been completed and can be submitted back to the server.
Service	A service of a service item or items. Typically, Installation, Deinstallation or Service. The process of a service usually encompasses Pre- and Port-work checks, information gathering and diagnosis and resolution notes. Additional references (MC Refs) may also be captured.
Actioned	A general term describing completing a job. So, 'Actioned' may be used instead of 'Collected', 'Serviced', 'Delivered'.
Consolidate	The action of taking several jobs and linking them together, so they are actioned at the same time with one start, arrive and signature.
Deconsolidate	The action of taking a consolidation of jobs and breaking them down into the component jobs again.
Job Swap	The action of selecting an existing load not assigned to the user, and picking jobs to transfer onto the user's load.
Signature Capture	Usually the final action of a job, where the customer's name and signature are entered.
Other Definitions	
Reason Code	A code which represents the reason that a job was cancelled or an item was cancelled or claused.
Vehicle	The vehicle used for transporting the goods.
Vehicle Checks	Also Defect Checks. A series of questions representing the results of checks intended to ensure the vehicle is in an acceptable condition.
Metrics Entry	A series of questions to capture information either at the start or end of a 'Load'.
Driver	The person performing the collections or deliveries; the user of the device/application.
Engineer	The person performing the services; the user of the device/application.
Customer	The person/company the goods are being collected from or delivered to.
Signatory	The name of the person providing a signature.
T&Cs	Terms and Conditions. The T&Cs are shown when signatures are prompted for. The text of the T&Cs are defined in the system itself.
Transfer Load	A load select from which to swap jobs to the user's load.
Base	E.g. 'Return to Base'. Typically the depot from which the driver departed.
Unplanned Ad Hoc Collection	A collection job that is created by the driver, usually after delivering to a customer.
Ad Hoc Container Entry/Scanning	The process of adding containers (items) to a job that have not been pre-advised on the job.
Completion Report	POD, POC, Service/Work Report.
Load Assignment	The action of assigning a vehicle and/or a driver to a load.
Job Assignment	The action of putting jobs onto a load.
Collection/Delivery Windows; Access Windows	Periods of time between which it is acceptable to deliver or collect from that customer. This has limited use in the system, mostly for reporting purposes.
Location/Map Terms	
Lat-Longs; GPS Co-ordinates, GPS Position	Latitude and Longitude co-ordinates, specified together as a single entity, identifying the exact position of a location. There are multiple formats - *CALIDUS* ePOD uses decimal notation, for example "53.3490818,-2.8521498" identifies the OBS Logistics office building in Liverpool.
GPS	

Term or Acronym	Meaning
	Global Positioning System; the satellite system used to obtain a GPS position, for use with navigation and location positioning.
Geocode; Reverse Geocode	Geocoding is the process of obtaining lat-longs from an address. Reverse Geocoding is the process obtaining an address from lat-longs.
Geofence; Geofence Break	A Geofence is a perimeter around a location. A Geofence Break occurs when a device passes through this perimeter on entry or exit from the location.

A.3 Authorised By

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The data within *CALIDUS* ePOD can be created from many sources:

- Import of jobs, loads and standing data through standard web services.
- Import of jobs and loads through flat-file imports.
- Manual import of Jobs, Loads and Standing Data through the Admin system.
- Manual entry in the Admin system.

That data can be exported from *CALIDUS* ePOD in many ways:

- Requested Export through standard C-ePOD web services.
- Configured export through interfaces.
- XLS export through the Admin system.

This section covers import and export of data through configured interfaces.

All interfaces, import and export, are configured through the *CALIDUS* ePOD Admin system, using the Import/Export Interface screen, with the exception of the hosted web services for import and export of jobs and loads, which are always available to processes that request from these web services.

Import and Export configurations are grouped under Configuration ID, which must then be attached to a Site or Job Groups, through the appropriate maintenance screens. Each interface configured for that ID will then be run for that site or job group.

You can add multiples of each export type to each configuration, allowing for (for example) multiple exports of the same data when a single job or load is completed.

See Auto-Export for details of how this screen is operated.

Warning: **It is not enough to create an interface - you must attach a configuration to a site or job group, or the interfaces will never be run. The system will not generate exports for any jobs prior to the assignment of the Interface Configuration ID.**

The processes below note any exceptions to these general rules.

The general parameters are as follows:

Field	Value
EPL_XF_CONFIG_ID	As required. This may be set to the Site ID for Job and Load exports.
EPL_DESCRIPTION	As required
EPL_XF_TYPE	Transfer type - one of: SOAP, FTP, EMAIL, FILE, POST
EPL_XF_DESTINATION	The external URL for SOAP and POST exports, or the email for EMAIL export, or the folder for FILE imports and exports, or the FTP Server for FTP imports and exports.
EPL_XF_ID	The export type - see the individual sections below.

Field	Value
EPL_EXPORT_FULLHEADERS	Applies to LOAD export types only.
EPL_WEB_PARAMETER	Applies to SOAP-type exports only.
EPL_WEB_USER	Applies to SOAP, FILE and FTP exports only.
EPL_WEB_PASSWORD	Applies to SOAP, FILE and FTP exports only.
EPL_SOAP_ACTION	Applies to SOAP-type exports only.
EPL_SOAP_NS	Applies to SOAP-type exports only.
EPL_SOAP_NS_PREFIX	Applies to SOAP-type exports only.
EPL_XF_DIRECTION	O - Export, I - Import
EPL_XF_RECIPIENT	Multi-use. For EMAIL, the email address. For TomTom WEBFLEET interfaces, the provided WEBFLEET fleet.
EPL_EXPORT_JOB_TYPES	Defines the types of jobs that are exported through this format, of C (Collections), D (Deliveries) and S (Services).
EPL_XF_MSG_TYPE	Multi-use. For TomTom WEBFLEET interfaces, the provided WEBFLEET API Key. For TTM, the message types. For Job Imports, the file format type.
EPL_EXPORT_FORMAT	Multi-use. For TTM, the mode. For POD, the format of the file exported.
EPL_IMAGE_TYPE	Applies to POD exports only
EPL_TIFF_COMPRESSION	Applies to POD exports only
EPL_FILENAME	The export or import filename, plus insertions.
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here. Only applies to some imports and exports.
EPL_INCLUDE_CSV_HEADER	Applies to OBS CSV Imports only - defines whether the import contains a line determining the fields being imported.
EPL_CONTRACT_OPERATION	Applies to SOAP-type exports only.
EPL_SOAP_VERSION	Applies to SOAP-type exports only. Defaults to text/xml;

10.1 Transfer Types

Standard Transfer types set in EPL_XF_TYPE are:

- *SOAP* - a SOAP web service.
- *FTP* - an FTP address.
- *EMAIL* - an Email address.
- *FILE* - a local or network file transfer.
- *POST* - a POST web service i.e. URL to a web page.

Typically, the destination set in EPL_XF_DESTINATION defines all transfer types.

10.1.1 FTP

Normally, the destination would be through a URL e.g. ftp://172.190.90.1, which would be configured on the destination to point to a default directory.

Anything after the base above e.g. ftp://172.190.90.1/ARC/IN/ would point to folders underneath that default directory.

The User and Password for the FTP site is defined in EPL_XF_WEB_USER and EPL_XF_WEB_PASSWORD.

10.1.2 EMAIL

The destination is set to be an email address or addresses. The delimiter is typically a comma (,) or semi-colon (;), depending on the email server the system is linked to.

Examples:

- a.name@company.com

Ready for What's Next, Now™

- a.name@company.com; a.nother@company.com
- a.name@company.com, a.nother@company.com

10.1.3 FILE

The local, network or share name full file path is defined in the destination.

Example:

- Local file: C:\FILES\ABC\
- Network mapped: X:\FILES\ABC\
- Network file: \\1.2.3.4\FILES\ABC\
- Domain file: \\myserver\FILES\ABC\

10.1.4 POST

The destination is defined by the full URL of the page.

Example:

- http://my.url.com/mypage.asp

Typically this would not require a username and password, but could be defined in EPL_XF_WEB_USER and EPL_XF_WEB_PASSWORD.

10.1.5 SOAP

SOAP web services typically require a number of parameters in addition to POST parameters.

The destination is defined as the web service and method.

Example:

- http://my.url.com/mywebservice/method

Other parameters that may be required:

- EPL_WEB_PARAMETER - parameter for the web service e.g. EPOD_ACTUALS-XMLTYPE-IN
- EPL_WEB_USER - username for authenticated web services
- EPL_WEB_PASSWORD - password for authenticated web services
- EPL_SOAP_ACTION -
- EPL_SOAP_NS - namespace URL e.g. http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
- EPL_SOAP_NS_PREFIX the namespace ID for the namespace above.
- EPL_CONTRACT_OPERATION - additional level for the web service XML e.g. CXMLTYPE-EPOD_ININput

Typically, web service methods require bespoke content, so usually these settings must be completed in conjunction with a known web service type, as shown below.

10.2 File Naming

Generally, for FILE and FTP exports, the file naming default is based on the configuration.

If no filename is specified, the default is:

- EPOD_(EPL_RECIPIENT)_(EPL_XF_CONFIG_ID)_(DATE)_(TIME)_(UID).<ext>

where

- EPL_RECIPIENT - from the configuration
- EPL_XF_CONFIG_ID - from the configuration
- DATE - the current date in yyyyMMdd format
- TIME - the current time in HHmmss format
- UID - a unique identifier per record generated in that run
- ext - the defined extension of the file, based on the ID.

For example:

- EPOD_EUROPA_L02_20180201_104956_1.XML

Filename can be specified in the EPL_FILENAME parameter as any plain text plus the following job-level items:

- EPL_EXT_REF
- EPL_OWNER_NAME
- EPL_SO_NUMBER
- EPL_SITE_ID
- EPL_JOB_ID - a C-ePOD-generated unique identifier for the job for that site.
- EPL_LOAD_ID
- EPL_JOB_CODE
- EPL_CUST_REF
- EPL_CUSTOMER_CODE
- EPL_PF_DEPOT - the pallet network depot code
- DATE
- TIME
- UID

Note: The format is the field in parenthesis, so for example:

- EPOD_(EPL_RECIPIENT)_(EPL_SITE_ID)_(DATE)_(TIME)_(UID)

All JOB and Pallet Network exports using FTP or FILE will follow this Filename naming convention.

Where applicable to other types, this is shown below.

10.3 Core *CALIDUS* Exports

10.3.1 Job

For Export, if this configuration has the same name as the Site that it applies to, it need not be attached to a Site or Job Group through an XF Config ID.

This type exports and imports data through the C-ePOD standard XML format, through web services, file copy or FTP. Exports may also be emailed, where the XML is attached to an email and sent.

Note: This interface is used by *CALIDUS* TMS and *CALIDUS* Total Logistics.

This interface is triggered when a job is completed or cancelled (where the status has been set to "C" or "X").

Standard configuration is as follows:

Field	Value
EPL_XF_TYPE	Any type may be configured for Export. For Import, FILE and FTP are valid.
EPL_XF_DESTINATION	The external URL for SOAP and POST exports, or the email for EMAIL export, or the folder for FILE imports and exports, or the FTP Server for FTP imports and exports.
EPL_XF_ID	The export type, JOB.
EPL_EXPORT_FULLHEADERS	Normally "N" or unchecked.
EPL_EXPORT_JOB_TYPES	CD. Defining the job types that are exported. For example, C are collections, D are deliveries.

Example File Job Export:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	C:\Test\Stirling\
EPL_XF_ID	JOB
EPL_EXPORT_FULLHEADERS	N
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD

Example CALIDUS TMS Job Export:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://10.43.0.71:8011/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_XF_ID	JOB
EPL_EXPORT_FULLHEADERS	Y
EPL_WEB_PARAMETER	EPOD_ACTUALS-XMLTYPE-IN
EPL_WEB_USER	epod
EPL_WEB_PASSWORD	as provided
EPL_SOAP_ACTION	
EPL_SOAP_NS	http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_SOAP_NS_PREFIX	epod
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD
EPL_CONTRACT_OPERATION	CXMLTYPE-EPOD_ININput

If no filename is specified for FTP or FILE export types for LOAD exports, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_(DATE)_(TIME)_1

If EPL_FILENAME is provided, this will be translated as described generically.

10.3.2 Load

For Export, if this configuration has the same name as the Site that it applies to, it need not be attached to a Site or Job Group through an XF Config ID.

This type exports data through the C-ePOD standard XML format, through web services, file copy or FTP. Exports may also be emailed, where the XML is attached to an email and sent.

Note: This interface is used by *CALIDUS* TMS and *CALIDUS* Total Logistics.

This interface is triggered based on the when a load is started (where the status is "I"), completed or cancelled (where the status has been set to "C" or "X"), based on the configuration of the message (see below).

Standard configuration is as follows:

Field	Value
EPL_XF_TYPE	Any type may be configured for Export. For Import, FILE and FTP are valid.
EPL_XF_DESTINATION	The external URL for SOAP and POST exports, or the email for EMAIL export, or the folder for FILE imports and exports, or the FTP Server for FTP imports and exports.
EPL_XF_ID	The export type, LOAD
EPL_EXPORT_FULLHEADERS	Normally "N" or unchecked. If "Y", this will include the full content of all of the jobs on the load, making a further Job interface redundant. When "N", only the Load is exported, not the jobs.

Field	Value
EPL_EXPORT_JOB_TYPES	CD. Defining the job types that are exported, if full headers are set. For example, C are collections, D are deliveries.
EPL_XF_MESSAGE_TYPE	Determines thr message trigger point: START (when the load is in progress, END (when the load is completed or cancelled) or BOTH.

Example CALIDUS TMS Load Export:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://10.43.0.71:8011/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_XF_ID	LOAD
EPL_EXPORT_FULLHEADERS	Y
EPL_WEB_PARAMETER	EPOD_ACTUALS-XMLTYPE-IN
EPL_WEB_USER	epod
EPL_WEB_PASSWORD	as provided
EPL_SOAP_ACTION	
EPL_SOAP_NS	http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_SOAP_NS_PREFIX	epod
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD
EPL_XF_MESSAGE_TYPE	BOTH
EPL_CONTRACT_OPERATION	CXMLTYPE-EPOD_ININput

If no filename is specified for FTP or FILE export types for LOAD exports, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_(DATE)_(TIME)_1

If EPL_FILENAME is provided, this will be translated as described generically.

10.3.3 NAV2016

For connection to NAV2016, the following interface must be configured.

This interface sends back details of completed or cancelled jobs (Collections, Deliveries and Services) in the C-ePOD XML format to the NAV2016 web service, which works in the standard way.

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	As confirmed, Example: https://nav16.in2grate.co.uk:7167/AELEPODUP/WS/A%26E%20Leisure%20Ltd./Codeunit/Get
EPL_XF_ID	NAV
EPL_EXPORT_FULLHEADERS	N
EPL_WEB_PARAMETER	xmlStrIn
EPL_WEB_USER	NAV-DEV\EPOD
EPL_WEB_PASSWORD	As confirmed
EPL_SOAP_ACTION	urn:microsoft-dynamics-schemas/codeunit/GetNAVData:ReturnNavDataAsXml
EPL_SOAP_NS	urn:microsoft-dynamics-schemas/codeunit/GetNAVData
EPL_SOAP_NS_PREFIX	nav
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD
EPL_CONTRACT_OPERATION	ReturnNavDataAsXml
EPL_SOAP_VERSION	text/xml; charset=utf-8

10.3.4 *CALIDUS* Portal TTM

This interface must be created when *CALIDUS* ePOD and *CALIDUS* Portal TTM are implemented together, usually without *CALIDUS* TMS.

Details on the interface can be found in the EPOD-TTM Interface guide.

The interface sends through tracking messages at all states of the order, as follows:

- *ORD* - Details of the order, down to individual items.
- *TRP* - the Workload, grouping all the orders together for transport.
- *OIT* - Order In Transit.
- *ARR* - Arrived at destination.
- *DEL*/*COL* - Collected/Delivered - completed job, including all items, quantities and discrepancies.
- *CAN* - Cancelled job.
- *GPS* - Vehicle GPS Tracking messages.

Field	Value
EPL_XF_TYPE	FILE or FTP
EPL_XF_DESTINATION	The file folder e.g. E:\Portal\TTM\EDI\DEV\INBOUND\
EPL_XF_ID	TTM
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	
EPL_EXPORT_JOB_TYPES	CD
EPL_XF_MSG_TYPE	TRP|CAN|DEL|OIT|ARR|GPS. If a message type is omitted, that message will not be sent. Typically, GPS is omitted.
EPL_EXPORT_FORMAT	Mode 1 or Mode 2 - see below for details.

For the different modes, the TTM fields are populated as follows:

Field	MODE 1	MODE 2
TMS Ref	Job Code	Job Code
SO Ref	Cust Ref if present, else Job Code	External Ref
Book Ref	External Ref	Cust Ref

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_(TTM_TRACKING_STATUS)_(DATE)_(TIME)_(UID)

where TTM_TRACKING_STATUS is one of the TTM tracking statuses listed above. **Note:** Filenames should not be changed from this format.

10.3.5 Vehicle Checks

This interface is used when exporting Vehicle Checks to external systems.

Only those vehicle checks that have been marked as not yet exported will be included.

The format is the C-ePOD Vehicle Check XML Export format.

Field	Value
EPL_XF_TYPE	Any, but typically FILE or FTP or EMAIL
EPL_XF_DESTINATION	Depending on type
EPL_XF_ID	V

Note: All other parameters depend on the type selected.

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_V_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

10.3.6 Job Swap

This interface is used with *CALIDUS* TMS only, when Job Swaps are enabled. In this case, the interface must be enabled to reflect Job Swaps within C-TMS.

The interface format is C-ePOD XML.

Example configuration for C-TMS:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://10.43.0.71:8011/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_XF_ID	JOBSWAP
EPL_WEB_PARAMETER	EPOD_ACTUALS-XMLTYPE-IN
EPL_WEB_USER	epod
EPL_WEB_PASSWORD	as provided
EPL_SOAP_ACTION	
EPL_SOAP_NS	http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_SOAP_NS_PREFIX	epod
EPL_XF_DIRECTION	O
EPL_CONTRACT_OPERATION	CXMLTYPE-EPOD_ININput

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_JOBSWAP_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

10.3.7 PODs

This interface is typically used to update Document Management Systems (DMS) with completed POD/POC reports.

Note: Emails of PODs to customers and site email addresses are dealt with through a different interface - see Completion Report Emails for details.

The export is normally an image or PDF file.

Note: POD and POD2 are functionally identical, but are used to configure multiple exports from C-ePOD. Recent changes mean that these can now all be defined as POD rather than POD2, making this format redundant.

Types of FILE, FTP and EMAIL are supported.

Example format of POD message.

Field	Value
EPL_XF_TYPE	FILE (Types of FILE, FTP and EMAIL are supported.)
EPL_XF_DESTINATION	Destination Folder for example: C:\OUTBOUND\POD\
EPL_XF_ID	POD
EPL_WEB_USER	User for filesystem, if required.
EPL_WEB_PASSWORD	Password for filesystem, if required.
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	D|S

Field	Value
EPL_EXPORT_FORMAT	Image (formats of HTML, Image, PDF)
EPL_IMAGE_TYPE	TIFF (image types of JPG, PNG, TIFF)
EPL_TIFF_COMPRESSION	FAX or Zip or None
EPL_FILENAME	Filename with insertions, for example: POD_(EPL_EXT_REF)_(DATE)_(TIME)_(UID)

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_POD_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

10.3.8 Invoices

To be able to email invoices you need to setup an appropriate Email Export Interface.

Example Invoice configuration:

Field	Value
EPL_XF_TYPE	EMAIL
EPL_XF_ID	Invoice
EPL_XF_DIRECTION	O
EPL_EXPORT_FORMAT	Html.

10.4 TomTom Export Interfaces

TomTom interfaces utilise the TomTom WEBFLEET web services to perform the following tasks.

Note: A WEBFLEET fleet, user and password will be required to use these services.

Warning: The TomTom WEBFLEET import and export processes will **not** process unless the automatic export and import processes have been set up and configured for TomTom WEBFLEET use - check with the system administrator.

10.4.1 Geocoder

The Geocoder service is used to generate Lat/Longs from addresses. As locations are created or updated, the LatLong will be requested to be updated.

Example format for TomTom Geocoder:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.25/addressService
EPL_XF_ID	TG
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided WEBFLEET user
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3
EPL_EXPORT_FORMAT	An optional control of how to send address information to WEBFLEET.
EPL_CONTRACT_OPERATION	geocodeAddress

The process can be configured to send addresses to the TomTom WEBFLEET geocoder in 2 main formats:

- Fixed.
- Freetext.

In Fixed mode, the process will send the following data to the geocoder:

- Street, set as Address Line 1.
- Postcode.
- Country, set by default to 'GB'. The OBS Logistics implementation team can configure this to any other country by default.

This is the default mode, when EPL_EXPORT_FORMAT is left blank. This method is useful when the address data in C-ePOD has been fixed by the customer, so that address line 1 is always the street. However, it does not account for data where a company name is provided in address line 1, nor can it use any places of interest (POI) databases provided by WEBFLEET to make the returned location more specific.

In Freetext mode, the process builds a free-text address from portions of the address being geocoded. The configuration of EPL_EXPORT_FORMAT governs the data sent through, as follows:

- If the string includes "N", the name is included in the free-text address.
- If the string includes "1", the first line of the address is included in the free-text address.
- If the string includes "2", the second line of the address is included in the free-text address.
- If the string includes "3", the third line of the address is included in the free-text address.
- If the string includes "4", the fourth line of the address is included in the free-text address.
- If the string includes "5", the fifth line of the address is included in the free-text address.
- If the string includes "P", the postcode is included in the free-text address.

Although this process is looser for WEBFLEET, the ability to control any of the address fields the process sends to the geocoder means that the results, when configured correctly, can be much more accurate.

Examples:

For an address as follows:

- Name - "My Company"
- Address Line 1 - "123 Acacia Avenue"
- Address Line 2 - "Anywheretown"
- Address Line 3 - ""
- Address Line 4 - "Anywhereshire"
- Address Line 5 - ""
- Postcode - "NE14 10S"

Example 1 - Fixed:

The process sends through the following data:

- Street - "123 Acacia Avenue"
- Postcode - "NE14 10S"
- Country - "GB"

Example 2 - Freetext:

Where the configuration is "N124P", the process sends through the following data:

- Freetext- "My Company 123 Acacia Avenue Anywheretown Anywhereshire NE14 10S"

Example 3 - Freetext:

Where the configuration is "1P", the process sends through the following data:

- Freetext- "123 Acacia Avenue NE14 10S"

10.4.2 TomTom WEBFLEET Orders

This interface is used to export workloads of orders out to WEBFLEET to appear on WEBFLEET head units as a kind of Job List.

Note: In order for these messages to be interfaced, the workload must be assigned to a vehicle with a valid TomTom WEBFLEET external ID, and the workload must be in progress.

The interface will handle deleting orders from a head-unit and creating new orders.

The message uses a combination of WEBFLEET web service methods, and are fixed and bespoke for this interface.

Example format for TomTom WEBFLEET Orders:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.25/ordersService
EPL_XF_ID	TO
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided WEBFLEET user
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3
EPL_CONTRACT_OPERATION	geocodeAddress

10.5 HERE Geocoder

Note: Valid HERE account details are required to use these services.

The Geocoder service is used to generate Lat/Longs from addresses. As locations are created or updated, the LatLong will be requested to be updated.

Example format for TomTom Geocoder:

Field	Value
EPL_XF_TYPE	POST
EPL_XF_DESTINATION	https://geocoder.api.here.com/6.2/geocode.xml
EPL_XF_ID	HG
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	Provided HERE account
EPL_XF_MSG_TYPE	Provided HERE API Key
EPL_EXPORT_FORMAT	An optional control of how to send address information to WEBFLEET.

The process builds a free-text address from portions of the address being geocoded. The configuration of EPL_EXPORT_FORMAT governs the data sent through, as follows:

- If the string includes "N", the name is included in the free-text address.
- If the string includes "1", the first line of the address is included in the free-text address.

- If the string includes "2", the second line of the address is included in the free-text address.
- If the string includes "3", the third line of the address is included in the free-text address.
- If the string includes "4", the fourth line of the address is included in the free-text address.
- If the string includes "5", the fifth line of the address is included in the free-text address.
- If the string includes "P", the postcode is included in the free-text address.

Examples:

For an address as follows:

- Name - "My Company"
- Address Line 1 - "123 Acacia Avenue"
- Address Line 2 - "Anywheretown"
- Address Line 3 - ""
- Address Line 4 - "Anywhereshire"
- Address Line 5 - ""
- Postcode - "NE14 10S"

Example 1:

Where the configuration is "N124P", the process sends through the following data:

- Freetext- "My Company 123 Acacia Avenue Anywheretown Anywhereshire NE14 10S"

Example 2:

Where the configuration is "1P", the process sends through the following data:

- Freetext- "123 Acacia Avenue NE14 10S"

10.6 External Tracking System Exports

External tracking system updates are generally bespoke services required to be updated by specific carriers.

As such, they are typically attached to a specific Job Group, and will be exported along with the general Site configuration when the job is updated to comp[lete or cancelled.

Note: For most of these messages, additional information is required on receiving the job:

- PF Depot - Depot for external tracking
- PF Tracking Number - the external tracking reference

10.6.1 PalletForce

The Palletforce configuration is attached directly to the PALLET job group and site without setting an XF Config ID, and requires specific configuration of the name to the Site and PF Depot - please contact your OBSL representatives for details.

For example, for a PalletForce job, for site L02, with PalletForce depot code 177, this would be configured with an XF Config ID of "PALLETL02_177".

A flat-file interface of FILE or FTP is required.

The interface updates each pallet and consignment, and provides the signature.

Example Palletforce configuration:

Field	Value
EPL_XF_TYPE	FTP
EPL_XF_DESTINATION	ftp://10.43.0.73/testftp/
EPL_XF_ID	PF
EPL_EXPORT_FULLHEADERS	
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_EXPORT_JOB_TYPES	D

10.6.2 PALLEX

This is a SOAP web service only to the Pallex TWINE system.

The interface updates each pallet and consignment, and provides the signature.

Example Pallex configuration:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	Web service URL e.g. http://82.3.53.216/depotcustomer.asmx
EPL_XF_ID	PALLEX
EPL_WEB_USER	Provided Pallex TWINE username
EPL_WEB_PASSWORD	Provided Pallex TWINE password
EPL_SOAP_NS	http://tempuri.org/
EPL_SOAP_NS_PREFIX	tem
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	D

10.6.3 TPN

This is a SOAP web service only to the TPN Connect system.

The TPN configuration is attached directly to the TPN job group and site without setting an XF Config ID, and requires specific configuration of the name to the Site and PF Depot - please contact your OBSL representatives for details.

For example, for a TPN job, for site L02, with TPN depot code 177, this would be configured with an XF Config ID of "TPNL02_177".

The interface sends one message per consignment, to update a pallet and consignment with delivery, signatory and signature information.

Example TPN configuration:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://dev.tpnconnect.com:3268/ThirdPartyServices.svc
EPL_XF_ID	TPN
EPL_WEB_USER	Provided TPN Connect username
EPL_WEB_PASSWORD	Provided TPN Connect password
EPL_SOAP_NS	http://schemas.datacontract.org/2004/07/ConnectSystem.Models.Integration;http://tempuri.org/

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Field	Value
EPL_SOAP_NS_PREFIX	con;tem
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	D

10.6.4 EUROPA

The Eurpoa configuration is attached directly to the EUROPA job group and site without setting an XF Config ID, and requires specific configuration of the name to the Site and PF Depot - please contact your OBSL representatives for details.

A flat-file interface of FILE or FTP is required.

Europa systems match the OBS XML file format.

Example Europa configuration:

Field	Value
EPL_XF_TYPE	FTP
EPL_XF_DESTINATION	ftp://ftp.europa-worldwide.com
EPL_XF_ID	JOB
EPL_EXPORT_FULLHEADERS	N
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_RECIPIENT	EUROPA
EPL_EXPORT_JOB_TYPES	D

10.6.5 GAP

This is a flat-file exort only of GAP 861 messages in ANSI X12 format.

A flat-file interface of FILE or FTP is required.

Note: This interface requires a secure middleware interface, as GAP only accepts files from trusted sources.

Example GAP 861 configuration:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	C:\FILES\GAP
EPL_XF_ID	GAP861
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	GAP
EPL_EXPORT_JOB_TYPES	CD
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

For FILE and FTP exports, the file naming default is based on the configuration.

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_(EPL_RECIPIENT)_(EPL_XF_ID)_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

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10.6.6 Palletline

This is a FTP flatfile update to the Palletline Contrado system.

The interface sends one message per consignment, to update a pallet and consignment with delivery, signatory and signature information.

If this is configured, the system will also send one Arrival message per consignment.

Example Palletline configuration:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	E:\ftpserver\customer\out
EPL_XF_ID	PLINE
EPL_XF_DIRECTION	O

10.6.7 Hazchem

This is a FTP flatfile update to the Hazchem HazchemOnline system.

The interface sends one message per consignment, to update a pallet and consignment with delivery, signatory and signature information.

If this is configured, the system will also send one Arrival message per consignment.

Example Hazchem configuration:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	E:\ftpserver\customer\out
EPL_XF_ID	HAZCHEM
EPL_XF_DIRECTION	O

10.7 Imports

For FILE-type job and load imports, the import file is archived in a configured archive directory, which can be Site-related. The same is true of files that error on import.

10.7.1 OBS XML

This interface defines imports of Jobs, Loads and standing data in the C-ePOD XML format, as used by the web services.

In all ways, this operates as the standard web services, except that this can process an XML flat file.

Example XML Import configuration:

Field	Value
EPL_XF_TYPE	FILE only
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN
EPL_XF_ID	JOB
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password

Field	Value
EPL_XF_DIRECTION	I
EPL_XF_MSG_TYPE	X
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

10.7.2 OBS CSV

This is a feature-limited import in CSV format only. This is typically only used when external systems cannot match the XML format. This matches the import through the Admin Import screen for jobs.

This interface allows creation of Loads, Collection and Delivery jobs, with Containers and/or products.

Example OBS CSV Import configuration:

Field	Value
EPL_XF_TYPE	FTP or FILE
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN
EPL_XF_ID	JOB
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_DIRECTION	I
EPL_XF_MSG_TYPE	GEN or Blank
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

10.7.3 Partnerlink JobShare Format

This is a feature-limited import in CSV format only. This is typically only used when external systems cannot match the XML format. This matches the import through the Admin Import screen for jobs.

This interface creates pallets for delivery based on the quantity against a single line, assigning IDs in a specified format, counting the pallets sequentially.

Example Partnerlink CSV Import configuration:

Field	Value
EPL_XF_TYPE	FTP or FILE
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN
EPL_XF_ID	JOB
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_DIRECTION	I
EPL_XF_RECIPIENT	For non-Vigo imports, replaces occurrences of AKW in the destination path with the value in this field.
EPL_XF_MSG_TYPE	P
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

10.7.4 TomTom WEBFLEET Update

This interface is used to pull back updates from TomTom WEBFLEET, to use in Planned vs Actuals reporting at a detailed level.

Warning: This process needs setting up just once for the TomTom fleet, regardless of how many sites there are, as the returned data is per fleet not per site. This interface need not be attached to a Site or Job Group to be effective.

Warning: The TomTom WEBFLEET import and export processes will **not** process unless the automatic export and import processes have been set up and configured for TomTom WEBFLEET use - check with the system administrator.

The interface will capture distance and time from TomTom WEBFLEET. It can also capture breaks on the device.

Note: This interface requires a message queue configured on TomTom WEBFLEET to operate effectively. If one is not created, the process will create one the first time it is run, but no data prior to that point will be imported.

Example format for TomTom WEBFLEET Orders Inbound:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.28/messagesService
EPL_XF_ID	TO
EPL_WEB_USER	Provided WEBFLEET user
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	I
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3

10.7.5 DiPS Route Creation/Optimisation

This interface will import and create or update jobs and workload from the DiPS route optimiser.

The interface processes DiPS export files and supports the standard for DiPS - CSV files. All known fields are supported, although only a few of the fields are mapped to *CALIDUS* ePOD data - please contact your OBSL representatives for details of this mapping.

The file can be imported through FTP or FILE types.

Example format for the DiPS route optimiser:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	C:\EPOD_DATA\EPOD_LOCALHOST\INBOUND\[SITE_ID]\IMPORT\IN
EPL_XF_ID	DIPS
EPL_XF_DIRECTION	I
EPL_XF_MSG_TYPE	GEN
EPL_FILENAME	DIPS2EPOD_[YYYYMMDD].xls
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

10.7.6 EBB Import

This is a feature-limited bespoke import in multiple parts. This is used by a single client.

Note: As a bespoke interface, this is likely of limited re-use. However, this may be of use when utilising Great Plains / Microsoft Dynamics GP WMS/ERP software. This requires a manifest file produced from the pick list, and an MSA view onto the database to operate successfully

This interface allows creation of Loads, Collection and Delivery jobs, with products.

Example EBB Import configuration:

Field	Value

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Field	Value
EPL_XF_TYPE	FTP or FILE
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN for the XML Manifest file
EPL_XF_ID	EBB
EPL_DB_CONNECTION	Data connection information to the MSA View: "Data Source=<ip>, <port>;Initial Catalog=<db>;User Id=<user>;Password=<pass>", replacing the '<*>' parameters with the required configuration.

10.8 *CALIDUS* Device Settings

Import/Export configurations can also be used on the mobile device. Specific configurations for the device can be configured in the same way. The acceptable interfaces are shown below.

10.8.1 TomTom WEBFLEET Device Settings

These settings are used on the device to connect to WEBFLEET and obtain the vehicle that the device is connected to, using the WEBFLEET user ID. The Odometer reading is also retrieved.

Example format for TomTom WEBFLEET Device Settings:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.31/objectsAndPeopleReportingService
EPL_XF_ID	TD
EPL_WEB_USER	Provided WEBFLEET user
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	D (Device)
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3

11 Appendix A: Document References

A.1 References

Ref No	Document Title & ID	Version	Date
1	UG 291094 EPOD Admin User Guide	4.5.00.02	08/04/2019
2	UG 291097 EPOD Client User Guide	4.0.2.21	02/04/2019

A.2 Glossary

Term or Acronym	Meaning
General Definitions	
EPOD	Electronic Proof of Delivery. The OBSL EPOD system is *CALIDUS* ePOD. This also comprises the basis of the Service Completion system *CALIDUS* eServ.
Server	The portion of the *CALIDUS* ePOD/eServ systems that controls all the data and sends information to and receives updates from the mobile device.
Mobile Device; PDA	The device used by the driver to perform the jobs. Typically an Android mobile device or tablet.
Site	The site usually defines the depot, business or the transport group (carrier). It can be set to any value required by the customer. All transactions data (for example, loads and jobs) and standing data (for example, vehicles and uses) belong to a site. An EPOD user, on a device or in the Admin screen, can only see data for one site at a time.
Load	A single journey for the driver with a set of work attached. A load is identified by a unique load ID. This may also be referred to as a worklist or workload.
Job	Also Consignment. A single task for the driver as a specific location. This could be the collection of goods or the delivery of goods. Jobs may also be Services (for example, servicing, installing or de-installing a boiler). A job is identified by a unique job ID but can also have other references held against the job (e.g. job code, SO number, customer reference and external reference).
Job Group	Jobs must be tagged with a Job Group. All jobs tagged with a single job group are processed in the same way. The job group has configuration associated to it to control such items as: POD/POC Report settings; Pre-Job actions (such as signing at a gatehouse); Post-Job actions (such as who signs for the item, are photos required); configurable fields required for entry for the jobs; Terms and Conditions displayed and; driver/user process (such as photos required for cancellation, comments/notes allowed). The job group can be used for any or all Sites, and the configuration against the job group can be different in each site. Job Groups can also be restricted from Admin and Remote users, so that certain users only see jobs for certain groups.
Container	A generic term for any object that contains the items being collected or delivered. Examples of containers are: Pallet; Package; Carton; Item; Cage. A special container "Loose Products" - see Product below. A container is identified by a container ID which is unique to this physical container.
Product	A product is any goods that are being collected or delivered where the product has a 'Product Code' which identifies what the product is but which does not uniquely identify each individual item. A product will also have a quantity associated with it to indicate how many items of this 'Product Code' are being collected or delivered. Products can either be processed within a 'Container' or as 'Loose Products' without a 'Container'.
Owner	The owner of the order that created the job. Typically this is the sales team that took the order and will be responsible for dealing with queries from the customer regarding the status.
Operator; Executor	The Site (depot or carrier) that is executing the load or loads that are involved in the delivery of the items.
Item Related Definitions	
Job Code	A reference associated with a job or job(s). This reference is common to connected jobs, for example this would be the same on both the collection of goods and the associated delivery of the same goods. Typically this would be the transport unique reference.
SO Number	A reference associated with a job which indicates the "Sales Order Number" this job is associated with.
Customer Reference	A reference associated with a job which has been provided by and will be recognised by the customer.
External Reference	

Term or Acronym	Meaning
	A reference associated with a job which does not match any of the existing references, usually because it has been provided by an external system.
Pallet	An alternative for 'Container'. The term pallet is used when the operation only uses portable platforms as the container for goods.
Package	An alternative for 'Container'. The term package is used when the operation only uses boxes or wrapping as containers for goods.
Package Code	A code representing the type of 'Container'.
Package Desc	A description of the type of 'Container'.
Product Code	A code which identifies what a product is.
Item	A generic term for any individual item that can be collected or delivered. An item can represent a 'Container' or a 'Product'. This can also be used as an alternative for 'Container' when the operation only treats the goods as individual items, i.e. not as identifiable products.
Service Item	An item which will be serviced by a service job. See action 'Service'.
Issue Life	The time after which an item is no longer fit for purpose.
Pack Size; Case Quantity	A product may consist of a full quantity of items, inside a pack. The Pack Size (or Case Quantity) defines the amount of this product contained in a single pack. For example, if there are 85 items to deliver, with a pack size of 24, the number of full packs is determined to be 3 (24 * 3, or 72), with the remaining (13) being 'loose' quantity. This is displayed as "3/13" on the mobile application.
UOM; Item Type	Unit of Measure; The major (case) UOM. This can optionally be displayed on the mobile device when changing product quantities.
Product Type	A classification of the product being delivered. For example, a company may deliver 7 different mortar products and 80 different concrete slab products. The Product Types may be set to "MORTAR" and "SLABS". This may be used to attach additional configuration, changing the data required when collecting or delivering these product types.
Status Definitions	
Status	An indicator of how far through the processing a 'Job', 'Container' or 'Product' has progressed.
Pending	A status indicating that the processing has not yet started, but is required to be completed.
In Progress	A status indicating that processing has started but not yet finished.
Complete	A status indicating that the 'Job', 'Container' or 'Product' has been collected or delivered.
Complete (Amended)	A status indicating that the 'Job', 'Container' or 'Product' has been collected or delivered but that some changes or amendments have been made. This means that not everything that was planned to be collected or delivered was collected or delivered, some items may have been cancelled or some products may only have had some of the planned quantities collected or delivered.
Complete (Claused)	A status indicating that the processing has been finished but that a 'Clause' condition has been recorded for this item.
Claused	See 'Complete (Claused)' and action 'Clause'.
Cancelled	A status indicating that the processing of this item or job is no longer required.
Cancelled at Collection	A status indicating that the delivery of a container or product is no longer required because the associated collection of this container or product was cancelled.
Submitted	An optional status that applies only to a 'Job' and which occurs after the 'Job' has been completed. This indicates that any time and expenses information recorded for the 'Job' has been submitted back to the server and can no longer be altered.
Action Definitions	
Start	An action associated with a 'Job' meaning the driver is about to start the processing of this job or jobs. This action will mark the job(s) with a status of 'In Progress'.
Arrive	A conditional action associated with a 'Job' meaning the driver has arrived at the location the goods should be collected from or delivered to.
Continue	An action associated with a 'Job' meaning the driver has previously performed the 'Start' and/or 'Arrive' action and has exited the processing screen but is now going to continue the processing.
Collect	An action associated with a specific 'Container' or a 'Product' meaning the driver has collected the 'Container' or 'Product'. This action will mark the 'Container' or 'Product' with a status of 'Complete' or 'Complete (Amended)'.
Collect Claused	An action associated with a specific 'Container' or a 'Product' meaning the driver has collected the 'Container' or 'Product' but with a condition under which the collection was accepted. This action will accept the clause condition and then mark the 'Container' or 'Product' with a status of 'Complete (Claused)'.

Term or Acronym	Meaning
Deliver	An action associated with a specific 'Container' or a 'Product' meaning the driver has delivered the 'Container' or 'Product'. This action will mark the 'Container' or 'Product' with a status of 'Complete' or 'Complete (Amended)'.
Deliver Claused	An action associated with a specific 'Container' or a 'Product' meaning the driver has delivered the 'Container' or 'Product' but with a condition under which the delivery was accepted. This action will accept the clause condition and then mark the 'Container' or 'Product' with a status of 'Complete (Claused)'.
Clause	An action associated with a specific 'Container' or a 'Product' that has already been collected or delivered meaning the collection or delivery has been accepted with a condition. This action will accept the clause condition and then mark the 'Container' or 'Product' with a status of 'Complete (Claused)'.
Cancel	An action associated with a 'Job', 'Container' or 'Product' meaning the collection or delivery will not be performed for this 'Job', 'Container' or 'Product'.
Submit	An optional action which can conditionally be carried out after a 'Job' has been collection or delivered meaning that any/all required expense or time recording for this 'Job' has been completed and can be submitted back to the server.
Service	A service of a service item or items. Typically, Installation, Deinstallation or Service. The process of a service usually encompasses Pre- and Port-work checks, information gathering and diagnosis and resolution notes. Additional references (MC Refs) may also be captured.
Actioned	A general term describing completing a job. So, 'Actioned' may be used instead of 'Collected', 'Serviced', 'Delivered'.
Consolidate	The action of taking several jobs and linking them together, so they are actioned at the same time with one start, arrive and signature.
Deconsolidate	The action of taking a consolidation of jobs and breaking them down into the component jobs again.
Job Swap	The action of selecting an existing load not assigned to the user, and picking jobs to transfer onto the user's load.
Signature Capture	Usually the final action of a job, where the customer's name and signature are entered.
Other Definitions	
Reason Code	A code which represents the reason that a job was cancelled or an item was cancelled or claused.
Vehicle	The vehicle used for transporting the goods.
Vehicle Checks	Also Defect Checks. A series of questions representing the results of checks intended to ensure the vehicle is in an acceptable condition.
Metrics Entry	A series of questions to capture information either at the start or end of a 'Load'.
Driver	The person performing the collections or deliveries; the user of the device/application.
Engineer	The person performing the services; the user of the device/application.
Customer	The person/company the goods are being collected from or delivered to.
Signatory	The name of the person providing a signature.
T&Cs	Terms and Conditions. The T&Cs are shown when signatures are prompted for. The text of the T&Cs are defined in the system itself.
Transfer Load	A load select from which to swap jobs to the user's load.
Base	E.g. 'Return to Base'. Typically the depot from which the driver departed.
Unplanned Ad Hoc Collection	A collection job that is created by the driver, usually after delivering to a customer.
Ad Hoc Container Entry/Scanning	The process of adding containers (items) to a job that have not been pre-advised on the job.
Completion Report	POD, POC, Service/Work Report.
Load Assignment	The action of assigning a vehicle and/or a driver to a load.
Job Assignment	The action of putting jobs onto a load.
Collection/Delivery Windows; Access Windows	Periods of time between which it is acceptable to deliver or collect from that customer. This has limited use in the system, mostly for reporting purposes.
Location/Map Terms	
Lat-Longs; GPS Co-ordinates, GPS Position	Latitude and Longitude co-ordinates, specified together as a single entity, identifying the exact position of a location. There are multiple formats - *CALIDUS* ePOD uses decimal notation, for example "53.3490818,-2.8521498" identifies the OBS Logistics office building in Liverpool.
GPS	

Term or Acronym	Meaning
	Global Positioning System; the satellite system used to obtain a GPS position, for use with navigation and location positioning.
Geocode; Reverse Geocode	Geocoding is the process of obtaining lat-longs from an address. Reverse Geocoding is the process obtaining an address from lat-longs.
Geofence; Geofence Break	A Geofence is a perimeter around a location. A Geofence Break occurs when a device passes through this perimeter on entry or exit from the location.

A.3 Authorised By

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12 Standard Interface Configuration

The data within *CALIDUS* ePOD can be created from many sources:

- Import of jobs, loads and standing data through standard web services.
- Import of jobs and loads through flat-file imports.
- Manual import of Jobs, Loads and Standing Data through the Admin system.
- Manual entry in the Admin system.

That data can be exported from *CALIDUS* ePOD in many ways:

- Requested Export through standard C-ePOD web services.
- Configured export through interfaces.
- XLS export through the Admin system.

This section covers import and export of data through configured interfaces.

All interfaces, import and export, are configured through the *CALIDUS* ePOD Admin system, using the Import/Export Interface screen, with the exception of the hosted web services for import and export of jobs and loads, which are always available to processes that request from these web services.

Import and Export configurations are grouped under Configuration ID, which must then be attached to a Site or Job Groups, through the appropriate maintenance screens. Each interface configured for that ID will then be run for that site or job group.

You can add multiples of each export type to each configuration, allowing for (for example) multiple exports of the same data when a single job or load is completed.

See Auto-Export for details of how this screen is operated.

Warning: **It is not enough to create an interface - you must attach a configuration to a site or job group, or the interfaces will never be run. The system will not generate exports for any jobs prior to the assignment of the Interface Configuration ID.**

The processes below note any exceptions to these general rules.

The general parameters are as follows:

Field	Value
EPL_XF_CONFIG_ID	As required. This may be set to the Site ID for Job and Load exports.
EPL_DESCRIPTION	As required
EPL_XF_TYPE	Transfer type - one of: SOAP, FTP, EMAIL, FILE, POST
EPL_XF_DESTINATION	The external URL for SOAP and POST exports, or the email for EMAIL export, or the folder for FILE imports and exports, or the FTP Server for FTP imports and exports.
EPL_XF_ID	The export type - see the individual sections below.
EPL_EXPORT_FULLHEADERS	Applies to LOAD export types only.
EPL_WEB_PARAMETER	Applies to SOAP-type exports only.
EPL_WEB_USER	Applies to SOAP, FILE and FTP exports only.
EPL_WEB_PASSWORD	Applies to SOAP, FILE and FTP exports only.
EPL_SOAP_ACTION	Applies to SOAP-type exports only.
EPL_SOAP_NS	Applies to SOAP-type exports only.
EPL_SOAP_NS_PREFIX	Applies to SOAP-type exports only.
EPL_XF_DIRECTION	O - Export, I - Import
EPL_XF_RECIPIENT	Multi-use. For EMAIL, the email address. For TomTom WEBFLEET interfaces, the provided WEBFLEET fleet.
EPL_EXPORT_JOB_TYPES	Defines the types of jobs that are exported through this format, of C (Collections), D (Deliveries) and S (Services).

Field	Value
EPL_XF_MSG_TYPE	Multi-use. For TomTom WEBFLEET interfaces, the provided WEBFLEET API Key. For TTM, the message types. For Job Imports, the file format type.
EPL_EXPORT_FORMAT	Multi-use. For TTM, the mode. For POD, the format of the file exported.
EPL_IMAGE_TYPE	Applies to POD exports only
EPL_TIFF_COMPRESSION	Applies to POD exports only
EPL_FILENAME	The export or import filename, plus insertions.
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here. Only applies to some imports and exports.
EPL_INCLUDE_CSV_HEADER	Applies to OBS CSV Imports only - defines whether the import contains a line determining the fields being imported.
EPL_CONTRACT_OPERATION	Applies to SOAP-type exports only.
EPL_SOAP_VERSION	Applies to SOAP-type exports only. Defaults to text/xml;

12.1 Transfer Types

Standard Transfer types set in EPL_XF_TYPE are:

- *SOAP* - a SOAP web service.
- *FTP* - an FTP address.
- *EMAIL* - an Email address.
- *FILE* - a local or network file transfer.
- *POST* - a POST web service i.e. URL to a web page.

Typically, the destination set in EPL_XF_DESTINATION defines all transfer types.

12.1.1 FTP

Normally, the destination would be through a URL e.g. ftp://172.190.90.1, which would be configured on the destination to point to a default directory.

Anything after the base above e.g. ftp://172.190.90.1/ARC/IN/ would point to folders underneath that default directory.

The User and Password for the FTP site is defined in EPL_XF_WEB_USER and EPL_XF_WEB_PASSWORD.

12.1.2 EMAIL

The destination is set to be an email address or addresses. The delimiter is typically a comma (,) or semi-colon (;), depending on the email server the system is linked to.

Examples:

- a.name@company.com
- a.name@company.com; a.nother@company.com
- a.name@company.com, a.nother@company.com

12.1.3 FILE

The local, network or share name full file path is defined in the destination.

Example:

- Local file: C:\FILES\ABC\
- Network mapped: X:\FILES\ABC\
- Network file: \\1.2.3.4\FILES\ABC\
- Domain file: \\myserver\FILES\ABC\

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12.1.4 POST

The destination is defined by the full URL of the page.

Example:

- http://my.url.com/mypage.asp

Typically this would not require a username and password, but could be defined in EPL_XF_WEB_USER and EPL_XF_WEB_PASSWORD.

12.1.5 SOAP

SOAP web services typically require a number of parameters in addition to POST parameters.

The destination is defined as the web service and method.

Example:

- http://my.url.com/mywebservice/method

Other parameters that may be required:

- EPL_WEB_PARAMETER - parameter for the web service e.g. EPOD_ACTUALS-XMLTYPE-IN
- EPL_WEB_USER - username for authenticated web services
- EPL_WEB_PASSWORD - password for authenticated web services
- EPL_SOAP_ACTION -
- EPL_SOAP_NS - namespace URL e.g. http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
- EPL_SOAP_NS_PREFIX the namespace ID for the namespace above.
- EPL_CONTRACT_OPERATION - additional level for the web service XML e.g. CXMLTYPE-EPOD_ININput

Typically, web service methods require bespoke content, so usually these settings must be completed in conjunction with a known web service type, as shown below.

12.2 File Naming

Generally, for FILE and FTP exports, the file naming default is based on the configuration.

If no filename is specified, the default is:

- EPOD_(EPL_RECIPIENT)_(EPL_XF_CONFIG_ID)_(DATE)_(TIME)_(UID).<ext>

where

- EPL_RECIPIENT - from the configuration
- EPL_XF_CONFIG_ID - from the configuration
- DATE - the current date in yyyyMMdd format
- TIME - the current time in HHmmss format
- UID - a unique identifier per record generated in that run
- ext - the defined extension of the file, based on the ID.

For example:

- EPOD_EUROPA_L02_20180201_104956_1.XML

Filename can be specified in the EPL_FILENAME parameter as any plain text plus the following job-level items:

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- EPL_EXT_REF
- EPL_OWNER_NAME
- EPL_SO_NUMBER
- EPL_SITE_ID
- EPL_JOB_ID - a C-ePOD-generated unique identifier for the job for that site.
- EPL_LOAD_ID
- EPL_JOB_CODE
- EPL_CUST_REF
- EPL_CUSTOMER_CODE
- EPL_PF_DEPOT - the pallet network depot code
- DATE
- TIME
- UID

Note: The format is the field in parenthesis, so for example:

- EPOD_(EPL_RECIPIENT)_(EPL_SITE_ID)_(DATE)_(TIME)_(UID)

All JOB and Pallet Network exports using FTP or FILE will follow this Filename naming convention.

Where applicable to other types, this is shown below.

12.3 Core *CALIDUS* Exports

12.3.1 Job

For Export, if this configuration has the same name as the Site that it applies to, it need not be attached to a Site or Job Group through an XF Config ID.

This type exports and imports data through the C-ePOD standard XML format, through web services, file copy or FTP. Exports may also be emailed, where the XML is attached to an email and sent.

 **Note:** This interface is used by *CALIDUS* TMS and *CALIDUS* Total Logistics.

This interface is triggered when a job is completed or cancelled (where the status has been set to "C" or "X").

Standard configuration is as follows:

Field	Value
EPL_XF_TYPE	Any type may be configured for Export. For Import, FILE and FTP are valid.
EPL_XF_DESTINATION	The external URL for SOAP and POST exports, or the email for EMAIL export, or the folder for FILE imports and exports, or the FTP Server for FTP imports and exports.
EPL_XF_ID	The export type, JOB.
EPL_EXPORT_FULLHEADERS	Normally "N" or unchecked.
EPL_EXPORT_JOB_TYPES	CD. Defining the job types that are exported. For example, C are collections, D are deliveries.

Example File Job Export:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	C:\Test\Stirling\
EPL_XF_ID	JOB
EPL_EXPORT_FULLHEADERS	N
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD

Example CALIDUS TMS Job Export:

Field	Value

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://10.43.0.71:8011/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_XF_ID	JOB
EPL_EXPORT_FULLHEADERS	Y
EPL_WEB_PARAMETER	EPOD_ACTUALS-XMLTYPE-IN
EPL_WEB_USER	epod
EPL_WEB_PASSWORD	as provided
EPL_SOAP_ACTION	
EPL_SOAP_NS	http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_SOAP_NS_PREFIX	epod
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD
EPL_CONTRACT_OPERATION	CXMLTYPE-EPOD_ININput

If no filename is specified for FTP or FILE export types for LOAD exports, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_(DATE)_(TIME)_1

If EPL_FILENAME is provided, this will be translated as described generically.

12.3.2 Load

For Export, if this configuration has the same name as the Site that it applies to, it need not be attached to a Site or Job Group through an XF Config ID.

This type exports data through the C-ePOD standard XML format, through web services, file copy or FTP. Exports may also be emailed, where the XML is attached to an email and sent.

Note: This interface is used by *CALIDUS* TMS and *CALIDUS* Total Logistics.

This interface is triggered based on the when a load is started (where the status is "I"), completed or cancelled (where the status has been set to "C" or "X"), based on the configuration of the message (see below).

Standard configuration is as follows:

Field	Value
EPL_XF_TYPE	Any type may be configured for Export. For Import, FILE and FTP are valid.
EPL_XF_DESTINATION	The external URL for SOAP and POST exports, or the email for EMAIL export, or the folder for FILE imports and exports, or the FTP Server for FTP imports and exports.
EPL_XF_ID	The export type, LOAD
EPL_EXPORT_FULLHEADERS	Normally "N" or unchecked. If "Y", this will include the full content of all of the jobs on the load, making a further Job interface redundant. When "N", only the Load is exported, not the jobs.
EPL_EXPORT_JOB_TYPES	CD. Defining the job types that are exported, if full headers are set. For example, C are collections, D are deliveries.
EPL_XF_MESSAGE_TYPE	Determines thr message trigger point: START (when the load is in progress, END (when the load is completed or cancelled) or BOTH.

Example CALIDUS TMS Load Export:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://10.43.0.71:8011/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_XF_ID	LOAD
EPL_EXPORT_FULLHEADERS	Y
EPL_WEB_PARAMETER	EPOD_ACTUALS-XMLTYPE-IN
EPL_WEB_USER	epod
EPL_WEB_PASSWORD	as provided
EPL_SOAP_ACTION	
EPL_SOAP_NS	http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_SOAP_NS_PREFIX	epod
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD
EPL_XF_MESSAGE_TYPE	BOTH
EPL_CONTRACT_OPERATION	CXMLTYPE-EPOD_ININput

If no filename is specified for FTP or FILE export types for LOAD exports, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_(DATE)_(TIME)_1

If EPL_FILENAME is provided, this will be translated as described generically.

12.3.3 NAV2016

For connection to NAV2016, the following interface must be configured.

This interface sends back details of completed or cancelled jobs (Collections, Deliveries and Services) in the C-ePOD XML format to the NAV2016 web service, which works in the standard way.

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	As confirmed, Example: https://nav16.in2grate.co.uk:7167/AELEPODUP/WS/A%26E%20Leisure%20Ltd./Codeunit/GetNAVData
EPL_XF_ID	NAV
EPL_EXPORT_FULLHEADERS	N
EPL_WEB_PARAMETER	xmlStrIn
EPL_WEB_USER	NAV-DEV\EPOD
EPL_WEB_PASSWORD	As confirmed
EPL_SOAP_ACTION	urn:microsoft-dynamics-schemas/codeunit/GetNAVData:ReturnNavDataAsXml
EPL_SOAP_NS	urn:microsoft-dynamics-schemas/codeunit/GetNAVData
EPL_SOAP_NS_PREFIX	nav
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	CD
EPL_CONTRACT_OPERATION	ReturnNavDataAsXml
EPL_SOAP_VERSION	text/xml; charset=utf-8

12.3.4 *CALIDUS* Portal TTM

This interface must be created when *CALIDUS* ePOD and *CALIDUS* Portal TTM are implemented together, usually without *CALIDUS* TMS.

Details on the interface can be found in the EPOD-TTM Interface guide.

The interface sends through tracking messages at all states of the order, as follows:

- *ORD* - Details of the order, down to individual items.
- *TRP* - the Workload, grouping all the orders together for transport.
- *OIT* - Order In Transit.
- *ARR* - Arrived at destination.
- *DEL*/*COL* - Collected/Delivered - completed job, including all items, quantities and discrepancies.
- *CAN* - Cancelled job.

- *GPS* - Vehicle GPS Tracking messages.

Field	Value
EPL_XF_TYPE	FILE or FTP
EPL_XF_DESTINATION	The file folder e.g. E:\Portal\TTM\EDI\DEV\INBOUND\
EPL_XF_ID	TTM
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	
EPL_EXPORT_JOB_TYPES	CD
EPL_XF_MSG_TYPE	TRP|CAN|DEL|OIT|ARR|GPS. If a message type is omitted, that message will not be sent. Typically, GPS is omitted.
EPL_EXPORT_FORMAT	Mode 1 or Mode 2 - see below for details.

For the different modes, the TTM fields are populated as follows:

Field	MODE 1	MODE 2
TMS Ref	Job Code	Job Code
SO Ref	Cust Ref if present, else Job Code	External Ref
Book Ref	External Ref	Cust Ref

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_(TTM_TRACKING_STATUS)_(DATE)_(TIME)_(UID)

where TTM_TRACKING_STATUS is one of the TTM tracking statuses listed above. **Note:** Filenames should not be changed from this format.

12.3.5 Vehicle Checks

This interface is used when exporting Vehicle Checks to external systems.

Only those vehicle checks that have been marked as not yet exported will be included.

The format is the C-ePOD Vehicle Check XML Export format.

Field	Value
EPL_XF_TYPE	Any, but typically FILE or FTP or EMAIL

Field	Value
EPL_XF_DESTINATION	Depending on type
EPL_XF_ID	V

Note: All other parameters depend on the type selected.

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_V_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

12.3.6 Job Swap

This interface is used with *CALIDUS* TMS only, when Job Swaps are enabled. In this case, the interface must be enabled to reflect Job Swaps within C-TMS.

The interface format is C-ePOD XML.

Example configuration for C-TMS:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://10.43.0.71:8011/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_XF_ID	JOBSWAP
EPL_WEB_PARAMETER	EPOD_ACTUALS-XMLTYPE-IN
EPL_WEB_USER	epod
EPL_WEB_PASSWORD	as provided
EPL_SOAP_ACTION	
EPL_SOAP_NS	http://xmlns.oracle.com/orawsv/MTS_OWNER/DP_EPOD_WEB_SERVICE/EPOD_IN
EPL_SOAP_NS_PREFIX	epod
EPL_XF_DIRECTION	O
EPL_CONTRACT_OPERATION	CXMLTYPE-EPOD_ININput

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_JOBSWAP_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

12.3.7 PODs

This interface is typically used to update Document Management Systems (DMS) with completed POD/POC reports.

Note: Emails of PODs to customers and site email addresses are dealt with through a different interface - see Completion Report Emails for details.

The export is normally an image or PDF file.

Note: POD and POD2 are functionally identical, but are used to configure multiple exports from C-ePOD. Recent changes mean that these can now all be defined as POD rather than POD2, making this format redundant.

Types of FILE, FTP and EMAIL are supported.

Example format of POD message.

Field	Value
EPL_XF_TYPE	FILE (Types of FILE, FTP and EMAIL are supported.)
EPL_XF_DESTINATION	Destination Folder for example: C:\OUTBOUND\POD\
EPL_XF_ID	POD
EPL_WEB_USER	User for filesystem, if required.
EPL_WEB_PASSWORD	Password for filesystem, if required.
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	D|S
EPL_EXPORT_FORMAT	Image (formats of HTML, Image, PDF)
EPL_IMAGE_TYPE	TIFF (image types of JPG, PNG, TIFF)
EPL_TIFF_COMPRESSION	FAX or Zip or None
EPL_FILENAME	Filename with insertions, for example: POD_(EPL_EXT_REF)_(DATE)_(TIME)_(UID)

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_LOTS_(EPL_SITE_ID)_POD_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

12.3.8 Invoices

To be able to email invoices you need to setup an appropriate Email Export Interface.

Example Invoice configuration:

Field	Value
EPL_XF_TYPE	EMAIL
EPL_XF_ID	Invoice
EPL_XF_DIRECTION	O
EPL_EXPORT_FORMAT	Html.

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12.4 TomTom Export Interfaces

TomTom interfaces utilise the TomTom WEBFLEET web services to perform the following tasks.

Note: A WEBFLEET fleet, user and password will be required to use these services.

Warning: The TomTom WEBFLEET import and export processes will **not** process unless the automatic export and import processes have been set up and configured for TomTom WEBFLEET use - check with the system administrator.

12.4.1 Geocoder

The Geocoder service is used to generate Lat/Longs from addresses. As locations are created or updated, the LatLong will be requested to be updated.

Example format for TomTom Geocoder:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.25/addressService
EPL_XF_ID	TG
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided WEBFLEET user
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3
EPL_EXPORT_FORMAT	An optional control of how to send address information to WEBFLEET.
EPL_CONTRACT_OPERATION	geocodeAddress

The process can be configured to send addresses to the TomTom WEBFLEET geocoder in 2 main formats:

- Fixed.
- Freetext.

In Fixed mode, the process will send the following data to the geocoder:

- Street, set as Address Line 1.
- Postcode.
- Country, set by default to 'GB'. The OBS Logistics implementation team can configure this to any other country by default.

This is the default mode, when EPL_EXPORT_FORMAT is left blank. This method is useful when the address data in C-ePOD has been fixed by the customer, so that address line 1 is always the street. However, it does not account for data where a company name is provided in address line 1, nor can it use any places of interest (POI) databases provided by WEBFLEET to make the returned location more specific.

In Freetext mode, the process builds a free-text address from portions of the address being geocoded. The configuration of EPL_EXPORT_FORMAT governs the data sent through, as follows:

- If the string includes "N", the name is included in the free-text address.
- If the string includes "1", the first line of the address is included in the free-text address.
- If the string includes "2", the second line of the address is included in the free-text address.
- If the string includes "3", the third line of the address is included in the free-text address.
- If the string includes "4", the fourth line of the address is included in the free-text address.

- If the string includes "5", the fifth line of the address is included in the free-text address.
- If the string includes "P", the postcode is included in the free-text address.

Although this process is looser for WEBFLEET, the ability to control any of the address fields the process sends to the geocoder means that the results, when configured correctly, can be much more accurate.

Examples:

For an address as follows:

- Name - "My Company"
- Address Line 1 - "123 Acacia Avenue"
- Address Line 2 - "Anywheretown"
- Address Line 3 - ""
- Address Line 4 - "Anywhereshire"
- Address Line 5 - ""
- Postcode - "NE14 10S"

Example 1 - Fixed:

The process sends through the following data:

- Street - "123 Acacia Avenue"
- Postcode - "NE14 10S"
- Country - "GB"

Example 2 - Freetext:

Where the configuration is "N124P", the process sends through the following data:

- Freetext- "My Company 123 Acacia Avenue Anywheretown Anywhereshire NE14 10S"

Example 3 - Freetext:

Where the configuration is "1P", the process sends through the following data:

- Freetext- "123 Acacia Avenue NE14 10S"

12.4.2 TomTom WEBFLEET Orders

This interface is used to export workloads of orders out to WEBFLEET to appear on WEBFLEET head units as a kind of Job List.

Note: In order for these messages to be interfaced, the workload must be assigned to a vehicle with a valid TomTom WEBFLEET external ID, and the workload must be in progress.

The interface will handle deleting orders from a head-unit and creating new orders.

The message uses a combination of WEBFLEET web service methods, and are fixed and bespoke for this interface.

Example format for TomTom WEBFLEET Orders:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.25/ordersService
EPL_XF_ID	TO
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided WEBFLEET user

Field	Value
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3
EPL_CONTRACT_OPERATION	geocodeAddress

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12.5 HERE Geocoder

Note: Valid HERE account details are required to use these services.

The Geocoder service is used to generate Lat/Longs from addresses. As locations are created or updated, the LatLong will be requested to be updated.

Example format for TomTom Geocoder:

Field	Value
EPL_XF_TYPE	POST
EPL_XF_DESTINATION	https://geocoder.api.here.com/6.2/geocode.xml
EPL_XF_ID	HG
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	Provided HERE account
EPL_XF_MSG_TYPE	Provided HERE API Key
EPL_EXPORT_FORMAT	An optional control of how to send address information to WEBFLEET.

The process builds a free-text address from portions of the address being geocoded. The configuration of EPL_EXPORT_FORMAT governs the data sent through, as follows:

- If the string includes "N", the name is included in the free-text address.
- If the string includes "1", the first line of the address is included in the free-text address.
- If the string includes "2", the second line of the address is included in the free-text address.
- If the string includes "3", the third line of the address is included in the free-text address.
- If the string includes "4", the fourth line of the address is included in the free-text address.
- If the string includes "5", the fifth line of the address is included in the free-text address.
- If the string includes "P", the postcode is included in the free-text address.

Examples:

For an address as follows:

- Name - "My Company"
- Address Line 1 - "123 Acacia Avenue"
- Address Line 2 - "Anywheretown"
- Address Line 3 - ""
- Address Line 4 - "Anywhereshire"
- Address Line 5 - ""
- Postcode - "NE14 10S"

Example 1:

Where the configuration is "N124P", the process sends through the following data:

- Freetext- "My Company 123 Acacia Avenue Anywheretown Anywhereshire NE14 10S"

Example 2:

Where the configuration is "1P", the process sends through the following data:

- Freetext- "123 Acacia Avenue NE14 10S"

12.6 External Tracking System Exports

External tracking system updates are generally bespoke services required to be updated by specific carriers.

As such, they are typically attached to a specific Job Group, and will be exported along with the general Site configuration when the job is updated to comp[lete or cancelled.

Note: For most of these messages, additional information is required on receiving the job:

- PF Depot - Depot for external tracking
- PF Tracking Number - the external tracking reference

12.6.1 PalletForce

The Palletforce configuration is attached directly to the PALLET job group and site without setting an XF Config ID, and requires specific configuration of the name to the Site and PF Depot - please contact your OBSL representatives for details.

For example, for a PalletForce job, for site L02, with PalletForce depot code 177, this would be configured with an XF Config ID of "PALLETL02_177".

A flat-file interface of FILE or FTP is required.

The interface updates each pallet and consignment, and provides the signature.

Example Palletforce configuration:

Field	Value
EPL_XF_TYPE	FTP
EPL_XF_DESTINATION	ftp://10.43.0.73/testftp/
EPL_XF_ID	PF
EPL_EXPORT_FULLHEADERS	
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_EXPORT_JOB_TYPES	D

12.6.2 PALLEX

This is a SOAP web service only to the Pallex TWINE system.

The interface updates each pallet and consignment, and provides the signature.

Example Pallex configuration:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	Web service URL e.g. http://82.3.53.216/depotcustomer.asmx
EPL_XF_ID	PALLEX
EPL_WEB_USER	Provided Pallex TWINE username
EPL_WEB_PASSWORD	Provided Pallex TWINE password
EPL_SOAP_NS	http://tempuri.org/
EPL_SOAP_NS_PREFIX	tem
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	D

12.6.3 TPN

This is a SOAP web service only to the TPN Connect system.

The TPN configuration is attached directly to the TPN job group and site without setting an XF Config ID, and requires specific configuration of the name to the Site and PF Depot - please contact your OBSL representatives for details.

For example, for a TPN job, for site L02, with TPN depot code 177, this would be configured with an XF Config ID of "TPNL02_177".

The interface sends one message per consignment, to update a pallet and consignment with delivery, signatory and signature information.

Example TPN configuration:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	http://dev.tpnconnect.com:3268/ThirdPartyServices.svc

Field	Value
EPL_XF_ID	TPN
EPL_WEB_USER	Provided TPN Connect username
EPL_WEB_PASSWORD	Provided TPN Connect password
EPL_SOAP_NS	http://schemas.datacontract.org/2004/07/ConnectSystem.Models.Integration;http://tempuri.org/
EPL_SOAP_NS_PREFIX	con;tem
EPL_XF_DIRECTION	O
EPL_EXPORT_JOB_TYPES	D

12.6.4 EUROPA

The Eurpoa configuration is attached directly to the EUROPA job group and site without setting an XF Config ID, and requires specific configuration of the name to the Site and PF Depot - please contact your OBSL representatives for details.

A flat-file interface of FILE or FTP is required.

Europa systems match the OBS XML file format.

Example Europa configuration:

Field	Value
EPL_XF_TYPE	FTP
EPL_XF_DESTINATION	ftp://ftp.europa-worldwide.com
EPL_XF_ID	JOB
EPL_EXPORT_FULLHEADERS	N
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_RECIPIENT	EUROPA
EPL_EXPORT_JOB_TYPES	D

12.6.5 GAP

This is a flat-file exort only of GAP 861 messages in ANSI X12 format.

A flat-file interface of FILE or FTP is required.

Note: This interface requires a secure middleware interface, as GAP only accepts files from trusted sources.

Example GAP 861 configuration:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	C:\FILES\GAP
EPL_XF_ID	GAP861
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_DIRECTION	O
EPL_XF_RECIPIENT	GAP
EPL_EXPORT_JOB_TYPES	CD
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

For FILE and FTP exports, the file naming default is based on the configuration.

If no filename is specified for FTP or FILE export types, the default is:

- EPOD_(EPL_RECIPIENT)_(EPL_XF_ID)_(DATE)_(TIME)_(UID)

Filename can be specified in the EPL_FILENAME parameter as described generically above.

12.6.6 Palletline

This is a FTP flatfile update to the Palletline Contrado system.

The interface sends one message per consignment, to update a pallet and consignment with delivery, signatory and signature information.

If this is configured, the system will also send one Arrival message per consignment.

Example Palletline configuration:

Field	Value

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	E:\ftpserver\customer\out
EPL_XF_ID	PLINE
EPL_XF_DIRECTION	O

12.6.7 Hazchem

This is a FTP flatfile update to the Hazchem HazchemOnline system.

The interface sends one message per consignment, to update a pallet and consignment with delivery, signatory and signature information.

If this is configured, the system will also send one Arrival message per consignment.

Example Hazchem configuration:

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	E:\ftpserver\customer\out
EPL_XF_ID	HAZCHEM
EPL_XF_DIRECTION	O

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12.7 Imports

For FILE-type job and load imports, the import file is archived in a configured archive directory, which can be Site-related. The same is true of files that error on import.

12.7.1 OBS XML

This interface defines imports of Jobs, Loads and standing data in the C-ePOD XML format, as used by the web services.

In all ways, this operates as the standard web services, except that this can process an XML flat file.

Example XML Import configuration:

Field	Value
EPL_XF_TYPE	FILE only
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN
EPL_XF_ID	JOB
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_DIRECTION	I
EPL_XF_MSG_TYPE	X
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

12.7.2 OBS CSV

This is a feature-limited import in CSV format only. This is typically only used when external systems cannot match the XML format. This matches the import through the Admin Import screen for jobs.

This interface allows creation of Loads, Collection and Delivery jobs, with Containers and/or products.

Example OBS CSV Import configuration:

Field	Value
EPL_XF_TYPE	FTP or FILE
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN
EPL_XF_ID	JOB
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_DIRECTION	I
EPL_XF_MSG_TYPE	GEN or Blank
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

12.7.3 Partnerlink JobShare Format

This is a feature-limited import in CSV format only. This is typically only used when external systems cannot match the XML format. This matches the import through the Admin Import screen for jobs.

This interface creates pallets for delivery based on the quantity against a single line, assigning IDs in a specified format, counting the pallets sequentially.

Example Partnerlink CSV Import configuration:

Field	Value
EPL_XF_TYPE	FTP or FILE
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN
EPL_XF_ID	JOB
EPL_WEB_PARAMETER	
EPL_WEB_USER	Provided FTP or filesystem username
EPL_WEB_PASSWORD	Provided FTP or filesystem password
EPL_XF_DIRECTION	I
EPL_XF_RECIPIENT	For non-Vigo imports, replaces occurrences of AKW in the destination path with the value in this field.
EPL_XF_MSG_TYPE	P
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

12.7.4 TomTom WEBFLEET Update

This interface is used to pull back updates from TomTom WEBFLEET, to use in Planned vs Actuals reporting at a detailed level.

Warning: This process needs setting up just once for the TomTom fleet, regardless of how many sites there are, as the returned data is per fleet not per site. This interface need not be attached to a Site or Job Group to be effective.

Warning: The TomTom WEBFLEET import and export processes will **not** process unless the automatic export and import processes have been set up and configured for TomTom WEBFLEET use - check with the system administrator.

The interface will capture distance and time from TomTom WEBFLEET. It can also capture breaks on the device.

Note: This interface requires a message queue configured on TomTom WEBFLEET to operate effectively. If one is not created, the process will create one the first time it is run, but no data prior to that point will be imported.

Example format for TomTom WEBFLEET Orders Inbound:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.28/messagesService
EPL_XF_ID	TO
EPL_WEB_USER	Provided WEBFLEET user
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	I
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3

12.7.5 DiPS Route Creation/Optimisation

This interface will import and create or update jobs and workload from the DiPS route optimiser.

The interface processes DiPS export files and supports the standard for DiPS - CSV files. All known fields are supported, although only a few of the fields are mapped to *CALIDUS* ePOD data - please contact your OBSL representatives for details of this mapping.

The file can be imported through FTP or FILE types.

Example format for the DiPS route optimiser:

Field	Value

Field	Value
EPL_XF_TYPE	FILE
EPL_XF_DESTINATION	C:\EPOD_DATA\EPOD_LOCALHOST\INBOUND\[SITE_ID]\IMPORT\IN
EPL_XF_ID	DIPS
EPL_XF_DIRECTION	I
EPL_XF_MSG_TYPE	GEN
EPL_FILENAME	DIPS2EPOD_[YYYYMMDD].xls
EPL_EMAIL_ERRORS	Supports emailing of failed files to the defined email address here.

12.7.6 EBB Import

This is a feature-limited bespoke import in multiple parts. This is used by a single client.

Note: As a bespoke interface, this is likely of limited re-use. However, this may be of use when utilising Great Plains / Microsoft Dynamics GP WMS/ERP software. This requires a manifest file produced from the pick list, and an MSA view onto the database to operate successfully

This interface allows creation of Loads, Collection and Delivery jobs, with products.

Example EBB Import configuration:

Field	Value
EPL_XF_TYPE	FTP or FILE
EPL_XF_DESTINATION	Import folder e.g. C:\INBOUND\MSG_TYPE\IN for the XML Manifest file
EPL_XF_ID	EBB
EPL_DB_CONNECTION	Data connection information to the MSA View: "Data Source=<ip>, <port>;Initial Catalog=<db>;User Id=<user>;Password=<pass>", replacing the '<*>' parameters with the required configuration.

12.8 *CALIDUS* Device Settings

Import/Export configurations can also be used on the mobile device. Specific configurations for the device can be configured in the same way. The acceptable interfaces are shown below.

12.8.1 TomTom WEBFLEET Device Settings

These settings are used on the device to connect to WEBFLEET and obtain the vehicle that the device is connected to, using the WEBFLEET user ID. The Odometer reading is also retrieved.

Example format for TomTom WEBFLEET Device Settings:

Field	Value
EPL_XF_TYPE	SOAP
EPL_XF_DESTINATION	https://soap.business.tomtom.com/v1.31/objectsAndPeopleReportingService
EPL_XF_ID	TD
EPL_WEB_USER	Provided WEBFLEET user
EPL_WEB_PASSWORD	Provided WEBFLEET password
EPL_SOAP_NS	http://connect.webfleet.tomtomwork.com/services
EPL_SOAP_NS_PREFIX	ser
EPL_XF_DIRECTION	D (Device)
EPL_XF_RECIPIENT	Provided WEBFLEET fleet
EPL_XF_MSG_TYPE	WEBFLEET API Key - for CALIDUS ePOD this is 000fcb2a-6631-477a-b00e-de0505e7c7e3

13 TomTom WEBFLEET Integration

CALIDUS ePOD has strong links to TomTom WEBFLEET for:

- Geocoding locations.
- Sending Orders to WEBFLEET for In Progress trips.
- Getting updates back from WEBFLEET for Planned Vs Actual comparison.

On the device, this also allows for:

- Navigation through TomTom's NavApp directly (where there is no WEBFLEET order).
- Activating the TomTom NavApp (where there is a WEBFLEET order).
- Automatic Logon from WEBFLEET User and Vehicle.
- Capture of Vehicle ODO reading.

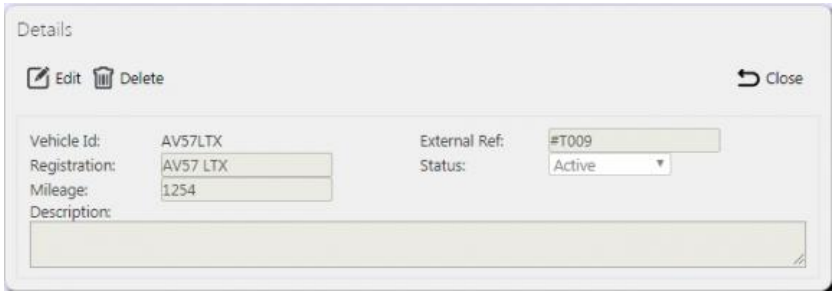
13.1 *CALIDUS* ePOD Configuration

In order to enable this functionality, you must create and enable the following interfaces:

- *TomTom Orders Export* - for sending orders to TomTom WEBFLEET.
- *TomTom Order Import* - for receiving updates back from TomTom WEBFLEET.
- *TomTom Geocoder* - for geocoding locations.
- *TomTom Device* - for automatic login.

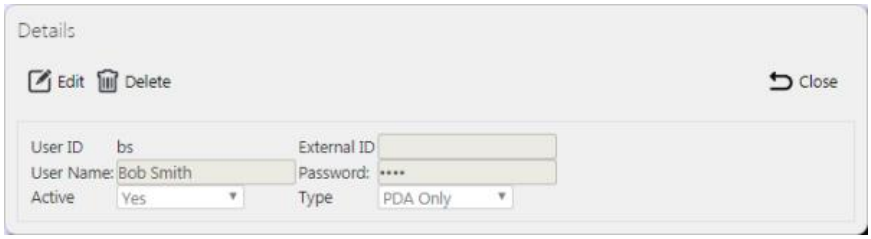
See the Standard Interface Configuration page for more details on how these are configured.

You must configure the vehicles with the TomTom WEBFLEET vehicle ID, in the *CALIDUS* ePOD Admin Vehicles maintenance screen.

- 

C-EPOD Vehicle Configuration

You must configure the drivers with the TomTom WEBFLEET driver ID, in the *CALIDUS* ePOD Admin Users maintenance screen. Note that, currently, the drivers' names must exactly match the names in TomTom WEBFLEET.

- 

C-EPOD User Configuration

CALIDUS ePOD can also update standing data from TomTom WEBFLEET, if you have configured the TomTom

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WEBFLEET Orders Interface for the system.

In this case, the Admin Vehicles and Users Maintenance screens can import the vehicles and drivers created in WEBFLEET through an **Import from WEBFLEET** button in the button bar. **Warning**: Existing vehicles and users may be updated and details over-ridden with the details from WEBFLEET, so care should be taken when using these options.

OBS Logistics recommended that arrival times are *not* enabled in *CALIDUS* ePOD when using WEBFLEET orders, to reduce the number of steps required to complete orders.

13.2 TomTom WEBFLEET Configuration

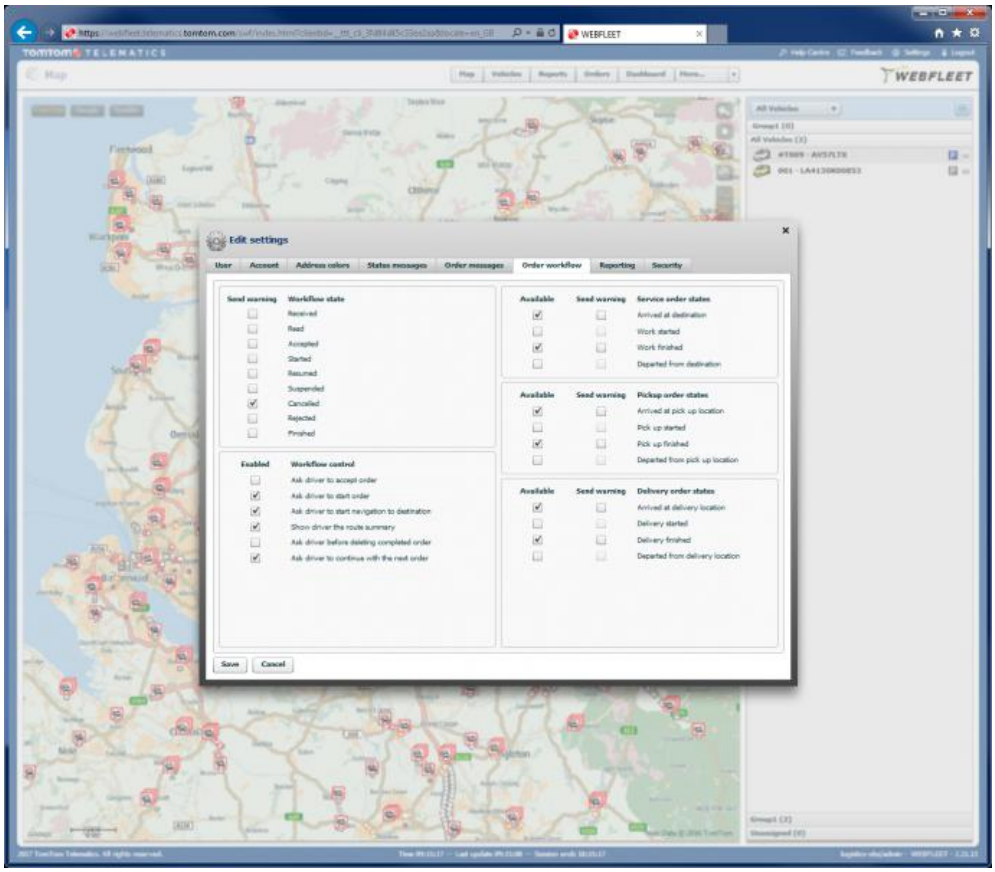
The driver will use the WEBFLEET Order Workflow to take the order to completion. This can consist of a number of steps in WEBFLEET:

- Accept Order.
- Start.
- Navigate Start.
- Show Route Summary.
- Arrive.
- Deliver Start.
- Deliver End.
- Complete.
- Deleted.
- Depart from destination.
- Continue with next order.

OBS Logistics recommended that the Order Workflow in WEBFLEET consists of the following:

- Start.
- Navigate.
- Arrive.
- Complete.

You can configure this through the settings link in the WEBFLEET application.

- 

WEBFLEET Order Workflow Configuration

13.3 Process

Whenever the system creates customers (either automatically or manually), the TomTom Geocoder is used to generate Latitude and Longitude co-ordinates for the location.

Whenever the system creates Job Addresses (either automatically or manually), the TomTom Geocoder is used to generate Latitude and Longitude co-ordinates for the location.

When a user manually allocates loads to a vehicle that is configured for TomTom WEBFLEET, the system checks that all locations on all jobs on the load (customer or job address) have a valid Lat/Long - if not, a warning is issued.

When a driver logs on to the mobile device application, the application checks the logged-on WEBFLEET user and use this to automatically set the user for log in to the application, if the WEBFLEET user matches the user in C-ePOD. The application will also check which vehicle is assigned to the WEBFLEET user and select that vehicle if available in C-ePOD. If there are any issues during this automatic login, the user will be informed, and will always have the facility to change vehicle.

When the device picks up loads and the loads are accepted (automatically or manually), the load is specified to be In Progress. If the vehicle assigned to the load is configured for WEBFLEET, any orders for the vehicle in WEBFLEET are deleted, and orders for all of the jobs on this load are generated in WEBFLEET.

Within the *CALIDUS* ePOD mobile device application, when the driver starts a job, the device will display a WEBFLEET icon instead of the normal Navigation Map Icon.

When the driver clicks this WEBFLEET icon, the app will activate the WEBFLEET app directly, where the order can be selected from the list of orders.

The driver will follow the WEBFLEET process steps to take the order to completion. It is expected that the process steps in WEBFLEET consist of the following:

- Start.
- Navigate.
- Arrive.
- Complete.

Arrival can be automatic based on the arrival to the Lat/Long location provided.

If the order does not exist in the list of orders, the mobile device application can still send navigation instructions to the TomTom NavApp. The driver can return to the *CALIDUS* ePOD application and long-press on the WEBFLEET button. This allows the driver to select sending the address directly to the TomTom NavApp, for either just this job or for all jobs on the load.

The mobile device application will send the address directly to the TomTom NavApp, which will immediately start navigation to this address.

Once the driver has finished navigation, they will switch back to the *CALIDUS* ePOD application, using the shortcut on the status bar. The C-ePOD application can then be used to complete the order.

When the driver has completed the job, they can switch back to the WEBFLEET app immediately to complete the order workflow, or can select the next job in the C-ePOD Job List and use the WEBFLEET button there.

If the *CALIDUS* ePOD application is not configured for WEBFLEET orders, the TomTom NavApp can still be used for direct navigation. The user can press on the Map icon, and the application will send the address directly to the TomTom NavApp, which will immediately start navigation to this address. If the address does not have a Lat/Long, this will be geocoded at this time, if possible.

As the driver completes process steps in TomTom WEBFLEET (e.g. Start, Arrival, Complete, Break), *CALIDUS* ePOD can pick up this information and stored for later Planned Vs Actual Comparison. The system stores the following details:

- Auditing of all events.
- Breaks created.
- Distance (ODO).
- Time.

The admin users can run the Planned Vs Actual report the Admin Reports menu.

14 User-Defined Fields

You can extend *CALIDUS* ePOD data capture on the device without application changes through the use of User-Defined Forms and Fields.

The system allows the device to capture complex data at many different stages during the execution of jobs on the device. In many cases, you can use User-Defined Forms to replace more basic configurations already present in *CALIDUS* ePOD and add much more functionality to these areas, for example, terms and conditions, vehicle defect checks and load metrics.

You can add User-defined Forms (or UDF) at the following stages:

- When entering terms and conditions.
- When confirming items as delivered/collected.
- When confirming products as delivered/collected.
- When arriving at a job.
- Before completion of a job.
- When starting or ending a load.
- Many stages of Service Job processing.
- Exception processing (Cancellation) of Jobs, Items, Products, Services, etc.

You can use each of these processes to resolve certain use cases - this guide will highlight some of the requirements UDF the application has been used to fulfill, as well as expanding on how to enter and maintain UDF in general.

UDF is an import part of configuring *CALIDUS* ePOD to capture the data required at the right points. In most cases, you can use UDF instead of software changes to achieve the processes your customers require.

UDF is an important part of *CALIDUS* ePOD - OBS Logistics are always adding features to this already-powerful functionality, ensuring that the application grows with the customer's requirements.

15 The UDF Configuration Screen

This screen allows you to maintain the UDF (User-Defined Forms and Fields) configurations within the system.

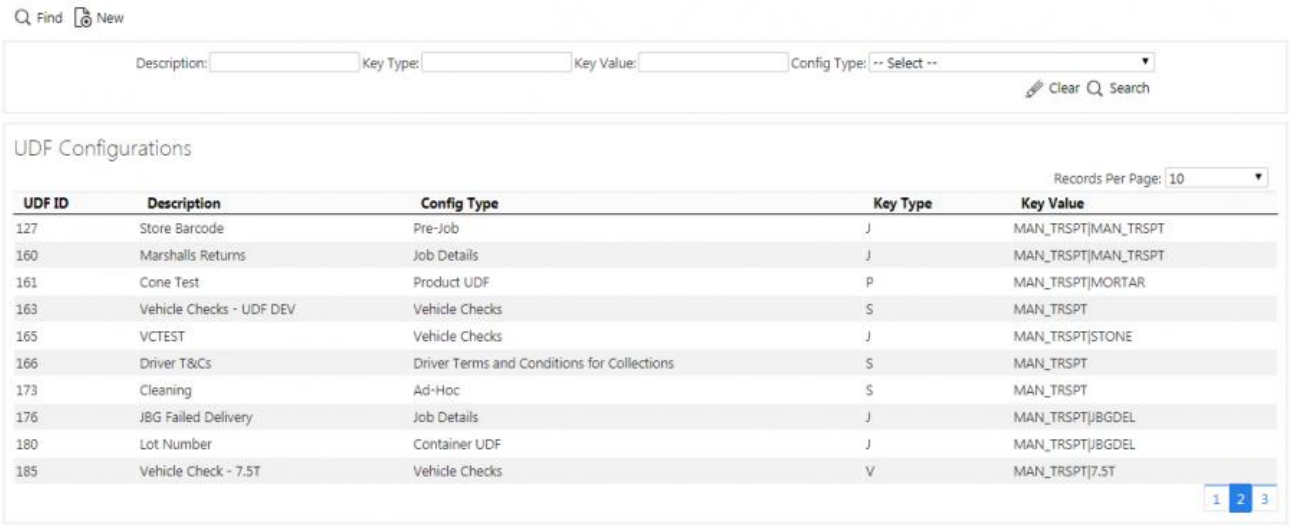
Certain stages of operation of the mobile device application have these UDF configurations attached to them. This configuration extends the data that can be entered on the device and therefore the use of the system. These customer forms can vary from a single field to multiple data entries, and even control additional buttons on the mobile device application.

You can view, create and edit UDF configurations on this screen.

You can filter data by:

- *Description*.
- *Key Type* - this defines to what key level the configuration is applied. One of "S" (*Site*), "J" (*Job Group*), "P" (*Product Group/Model*), "V" (*Vehicle Type*) or "R" (*Reason Code*).
- *Key Value* - a text box to select the key value. This may be a job group, product group, etc - all will be matched.
- *Config Type* - a drop-down list of all the different types of UDF configuration.

Once you have entered the criteria, click **Search**. The screen will display a table of all the matching data. Any plain text boxes will match data that contains what you enter as the criterion.



UDF Configurations Search Panel and Results table

The results table displays a single line for each configuration found.

The results table shows the following columns:

- *UDF ID* - a unique identified for the configuration, automatically generated by the system.
- *Description* - the UDF description.
- *Config Type* - the type of UDF configuration.
- *Key Type* - To what key level the configuration is applied. One of "S" (*Site*), "J" (*Job Group*), "P" (*Product Group/Model*), "V" (*Vehicle Type*) or "R" (*Reason Code*).
- *Key Value* - the key value associated to the key type. This may be a site, job group, product group, etc

You can sort the table by column by clicking on the column header - clicking again will reverse the sort sequence.

15.1 New UDF Configurations

You can create new UDF configurations by pressing the provided **New** button at the top of the screen.

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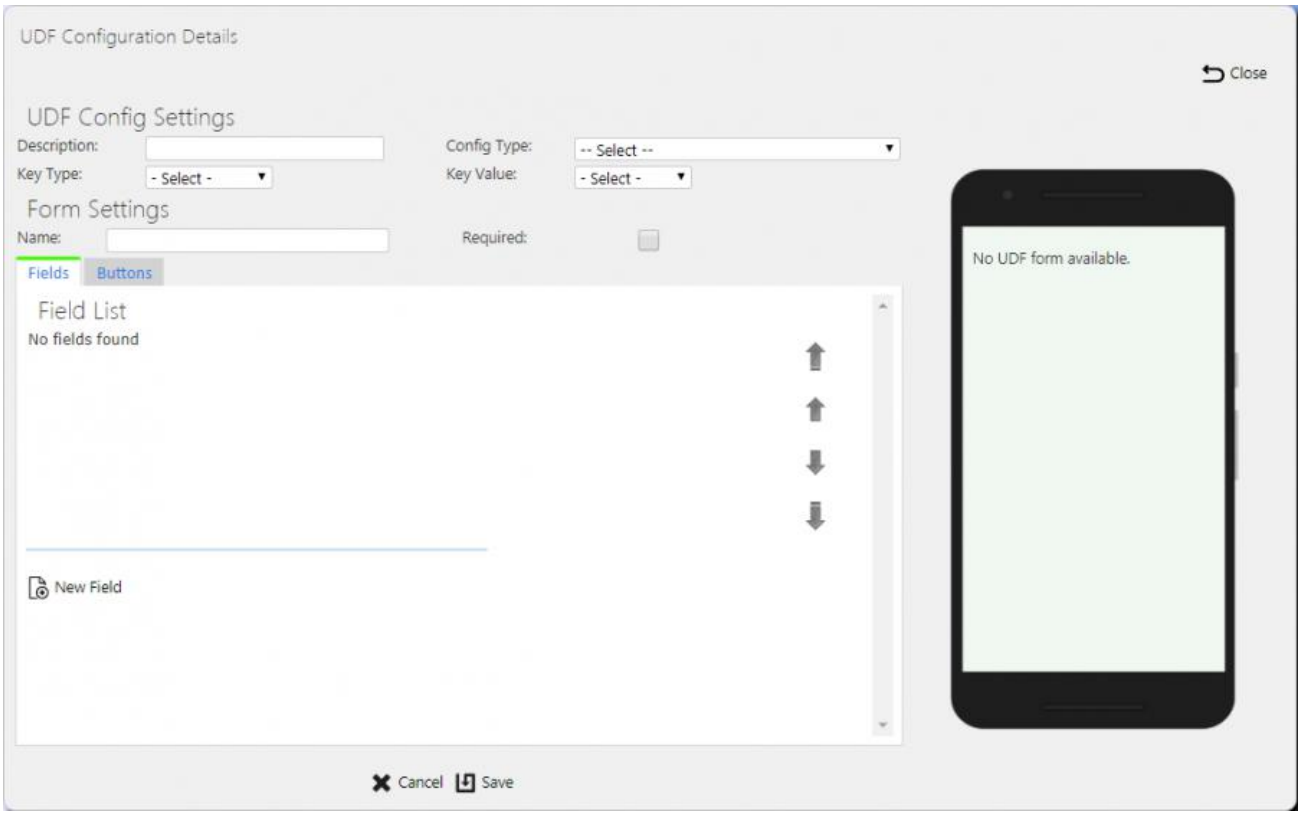


New UDF Configuration Pop-up

You can enter the following UDF configuration settings:

- *Description* - the UDF description, for reference.
- *Config Type* - a drop-down list of all the different types of UDF configuration. Select from:
    - *Arrival Terms and Conditions for Collections*
    - *Arrival Terms and Conditions for Deliveries*
    - *Container UDF*
    - *Driver Terms and Conditions for Collections*
    - *Driver Terms and Conditions for Deliveries*
    - *Driver Terms and Conditions for Services*
    - *Job Details*
    - *Load End Metric*
    - *Load Start Metric*
    - *Product UDF*
    - *Service Diagnosis*
    - *Service Info*
    - *Service Post-work*
    - *Service Pre-work*
    - *Terms and Conditions for Collections*
    - *Terms and Conditions for Deliveries*
    - *Terms and Conditions for Services*
    - *Terms and Conditions for Vehicle Checks*
    - *Vehicle Checks*
    - *Job Cancellation*
    - *Container Cancellation*
    - *Container Clause*
    - *Product Cancellation*
    - *Product Quantity Change*
    - *Service Cancellation*
    - *Service Item Cancellation*
    - *Subform*
    - *Service Product Installation*
    - *Service Product Removal*
    - *Service Product - Other Work*
    - *Service Activity*

- *Key Type* - a drop-down list of the key level the configuration is applied. One of "S" (*Site*), "J" (*Job Group*), "P" (*Product Group/Model*), "V" (*Vehicle Type*) or "R" (*Reason Code*). Only some values are allowed for the different config types.
- *Key Value* - a drop-down list of the key values for the key type selected. For example, if this is job group, this drop-down list will show all job groups for the site.

You can enter the following form parameters:

- *Name* - this may be used on the mobile device application as the title of the screen or form in some instances.
- *Required* - whether the form is required entry. This affects certain forms, for example Container and Product UDF.
  Note: For job UDF, this will be a drop-down list and will allow configuration of "When Amended", which indicates that the form is only required to be entered when the job is amended i.e. a container has been cancelled or a product quantity has been changed on the job.

For vehicle checks, you can enter the following additional form parameters:

- *Frequency (Days)* - the number of days between checks being enforced.
- *Required at Load End* - whether the checks are also prompted for at the end of executing a workload.
- *Signature* - whether a signature is prompted for after checks are complete.

Once you have entered the basic form details above, you can add fields to a form by clicking the **New Field** button. Each field you create can have the following parameters:

- *Default Field* - a drop-down list of default fields in the system. When you select a default field, the ID, label, requirement, type, validation and any items will be entered for you. Note that, if you are changing an existing field, the label and ID will *not* be changed. This allows you to quickly set up a field and then make any changes to it you wish. This list of default fields is shown at the end of this UDF guide. The list will be filtered to those that are applicable to the type of form you are creating, so, if Load Metrics are being created, only Load level information is available. The device and general fields are always available.
- *ID* - a unique identifier for the field on the form. This is required to be unique on the form.
- *Type* - a drop-down list of field types. You can select from:
  - *Text* - a simple in-line text box.
  - *Numeric* - a simple in-line number entry box.
  - *CheckBox* - a check box, starting unset by default, allowing Checked (Tick) or Unchecked (Cross).
  - *CheckBox List* - a grouped list of CheckBox fields.
  - *Tri-State CheckBox* - a check box, starting unset by default, allowing Checked (Tick), Unchecked (Cross) or Not Applicable (N/A).
  - *Tri-State CheckBox List* - a grouped list of Tri-state CheckBox fields.
  - *Drop-down List* - a drop-down list of values.
  - *Textarea* - a larger text box for large text entry, automatically growing in size on the mobile device application (e.g. notes).
  - *Label* - a text label.
  - *Photo* - a photo bar, allowing multiple photos to be taken on the form.
  - *Button* - a button, which can trigger a sub-form. Buttons may not be added to sub-forms.
  - *Multi-Select Lookup* - similar to a check-box list, but the values are derived from a Lookup of data on the device, normally reason codes or service products. You can define the lookup used using the Lookup attribute, which will show when you select this type.
  - *Product Search* - this is a very bespoke field type for looking up a tyre product. The field displays with the part code, manufacturer, size and description, with an ability to search for a tyre using these parameters. If the tyre position is known and the tyre position has been recently inspected, the tyre details will be pre-populated.
  - *Drop-down List (Lookup)* - similar to a Drop-down list, but the values are derived from a Lookup of data on the device, normally reason codes or service products. You can define the lookup used using the Lookup attribute, which will show when you select this type.
- *Label* - A text label for the field, typically on the left of the field. If this is a grouped checkbox list, this will appear as a title before the individual checks.
- *Sub-Label* - a smaller piece of text below the main label.
- *Group* - a text ID which groups fields. Deprecated.
- *Post Text* - A small text label under the value to be entered. Typically used for UOMs (units of measure).
- *Required* - a check-box denoting whether a non-blank value must be entered in or selected for the field.
- *Action* - a drop-down list of actions allowed for this field.
- *Validation* - A Regular Expression (RegExp) validation string, to validate the entered data on text, numeric or text area fields. **Warning**: This is advanced functionality and should only be attempted with knowledge of Regular Expressions.

- *Conditional* - a simple condition for whether the field displays. This is based on the value of a selected field within this UDF form. A simple example is PDASERVICEPRODUCT.EPL_SERVICES_SUPPLIED = "TWINT".
- *Comment* - tick box, only for Photo types. If checked, this means that a comment is required when taking a photo.
- *Default* - a drop-down list on default values.
- *Keyboard* - a drop-down list of keyboards that the device can display when entering the value in the field.
    - *Default* (the default value)
    - *ASCII*
    - *Decimal*
    - *Email*
    - *Name/Phone*
    - *Numeric (Punc)* - the default value for Numeric fields
    - *Numeric*
    - *URL*
- *Auto-Capitalisation* - a drop-down list of how the device automatically upshifts text entry on the device
    - *None* - the default
    - *All* - all characters upshifted
    - *Sentences* - The first character in a sentence is upshifted.
    - *Words* - the first character of every word is upshifted
- *Lookup* - a drop-down list of lookups that can be used by the device for Multi-Select Lookups and Drop-down List (Lookup) field types.

For *Action*, this is dependent on the field type. For normal fields, select from:

- *None* - no actions
- *Barcode* - displays a barcode button after the label. If clicked, this will start the Camera Barcode Scanner as part of the application, and will place the scanned value into the field value. **Note:** If the mobile device has a built-in scanner, this action can be ignored - the device scanner can be used to scan the value when the field value is selected (for text and numeric entry fields).
- A list of GS1 Barcode AIs available for text, numeric and text area fields.
- *Photo* - displays a photo button after the label. If clicked, this will start the camera and allow a photo to be taken linked to the field.

For *Button* fields, the screen will display a list of available sub-forms to attach to the button.

When you create lists (drop-down, check box, tri-state, these require entry of the options - an items table will be displayed showing the details, allowing you to enter the following:

- *Text*.
- *Value* - (Only for DDLs).
- *Default* - (Only for DDLs).

Drop-Down List UDF Configuration

You can add new items by entering the values in the last row in the table and clicking the **Add** button.

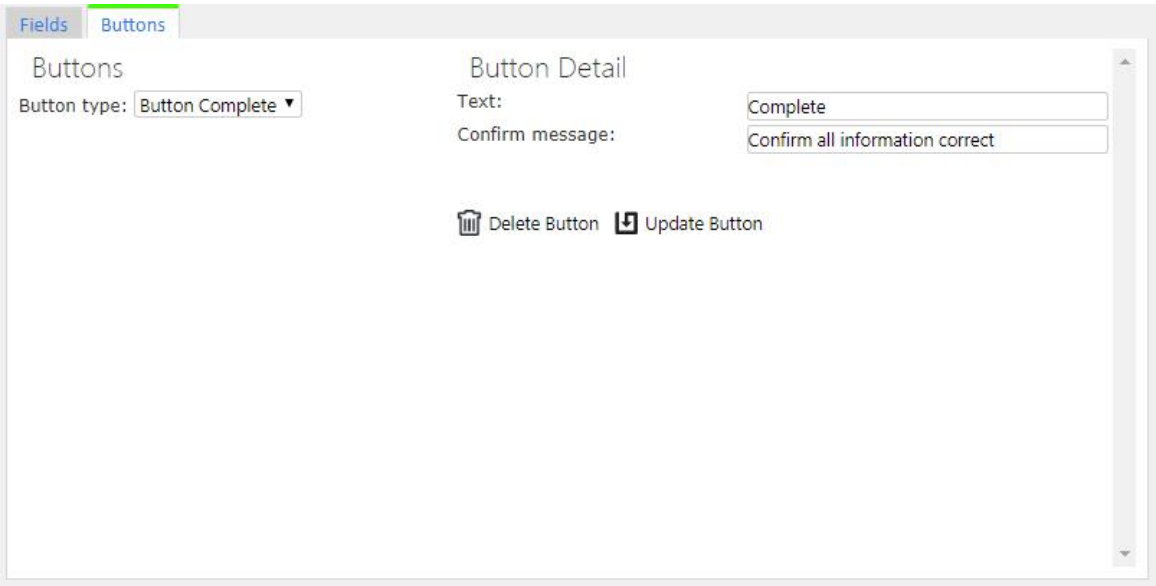
You can delete existing items by clicking the '*Delete* button against that item in the items table.

When you have created your new field, you can save them onto the form by clicking the **Update Field** button.

Warning: Although you have saved the field onto the form, you have not yet saved the form, so remember to save the whole form after you have created all your fields.

You can move fields up or down on the form using the buttons provided.

Buttons can be added to the form for service pre- and post-work and pre-job forms. You can do this by clicking the *Buttons* tab to create them.



UDF Buttons Configuration

Up to 2 buttons can be created based on 3 button types - you select them through the *Button Type* drop-down list:

- **Complete** - a button to complete and save all changes. The mobile device will apply validation.
- **Cancel** - a button to cancel the screen - no changes are saved.
- **Ignore** - a button to complete and save the form, marking it as ignored. The mobile device will not apply validation.

The details of the button can be added through the following configuration:

- *Text* - the button label
- *Confirm Message* - if you set this, when the mobile device user clicks the button, the device will display a confirmation message with the text that you enter here, along with **OK** and **Cancel** buttons.

You can save the buttons onto the form using the **Update Button** button.

Warning: Although you have saved your buttons onto the form, you have not yet saved the form, so remember to save the whole form after you have created all your buttons.

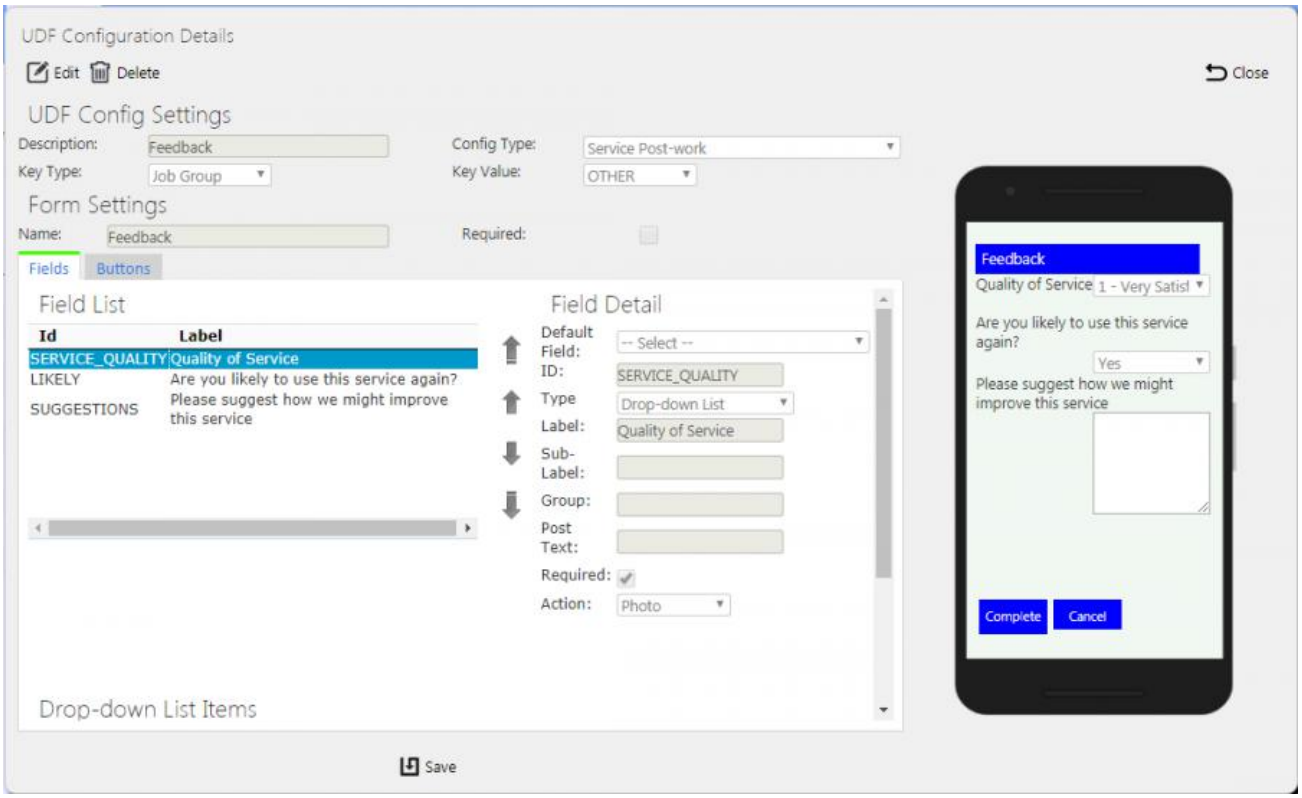
You can delete buttons from the form by clicking the **Delete Button** button.

As you edit the UDF form and creating fields and buttons, a preview of the form you are creating will be shown to the right. Remember this is a representation of the basic layout of the form, and is not intended to be absolutely representative of the final mobile device form.

When you have finished entering your form, fields and buttons, you can finally save the for by clicking the **Save** button provided. You can discard the new UDF configuration by clicking **Close** or **Cancel**.

15.2 View/Edit UDF Configurations

You can view or edit the configurations by clicking the **Select** button against the line in the table. The screen will display a pop-up showing all the details of the UDF configuration.



View/Edit UDF Configuration Pop-up

The UDF configuration may be edited by clicking the provided **Edit** button.

In all ways, editing a form is identical to creating a new form, so follow the guide above for more details.

When you have finished entering your form, fields and buttons, you can finally save the for by clicking the **Save** button provided. You can discard the new UDF configuration by clicking **Close** or **Cancel**.

You can click the **Delete** button to delete the form - the screen will ask you to confirm before the form is deleted.

15.3 Default Fields

Default fields are used to set up a new UDF field or amend an existing UDF quickly.

They come in two main types:

- *Data-bound* - Data-bound fields are UDF fields that get their value directly from a core *CALIDUS* ePOD field, like a reference on a job, or the quantity of a product. When the UDF field is changed, the value is *also* changed in the data field.
- *General* - general fields are just that - general use. They are there so that you can get going creating fields without having to know everything about the field itself - we have put together a list of many common fields to help you out.

Here we list all the default fields information about how they work and what they are for.

The list is categorised, with all data-bound fields listed first.

The categories are:

- *Data-bound - Container* - data directly from the container (item) being completed.
- *Data-bound - Job* - data directly from the job being completed.
- *Data-bound - Load* - data directly from the load being completed.
- *Data-bound - Product* - data directly from the product being completed.
- *General* - general-purpose useful fields.

- *General - Contact* - general purpose contact fields, like address, post code, email, etc.
- *Load End* - fields usually used in metrics-gathering information.
- *Pallet Network* - fields usually used by pallet networks.
- *Risk Assessment* - risk assessment fields, usually used pre-job, or at arrival to a location.
- *Services* - fields specific to service jobs.
- *Terms and Conditions* - usually customer-service related.
- *Tipper* - fields usually used by tipper or bulk operators.

The list shows the following details:

- *Label* - the label on the mobile device.
- *Validation* - whether the field is explicitly validated when the user enters a value, beyond the limits of the type, and what that validation is. Lists and check boxes require no validation. The following are some common validation rules:
  - *Chars* - a limitation of a certain number of any alphanumeric or symbolic characters.
  - *Numeric with dp* - number-related values only i.e. numbers, decimal point, with a limited number of decimal places (dp).
  - *X-Y* - usually a range of values, for example, 1 to 999. Anything outside this range is not allowed.
- *Reqd* - whether the user must enter a value in the field.
- *Type* - the basic type, one of
  - *Textbox* - a basic text entry box on a single line.
  - *Numeric* - a basic text entry box on a single line, accepting numbers only.
  - *Checkbox* - a check box that can be ticked or crossed.
  - *Checkbox List* - a list of check boxes, grouped together with a title.
  - *Tri-state Check* - a check box that starts empty, and can then be either ticked, crossed or made "N/A" (not applicable).
  - *Tri-state Check List* - a list of tri-state check boxes, grouped together with a title.
  - *Text Area* - a basic text entry box, allowing greater space for entry over multiple lines.
  - *Drop-down List* - a drop-down list of values.
- *Values* - if the type is a List of any kind, this defines the values that the user will be able to select of check.

Note: This list is subject to change - default field definitions can be added and removed by the development team.

Label	Validation	Reqd	Type	Values
Data-bound - Containers				
Code 1	30 chars		Textbox	
Code 2	30 chars		Textbox	
Code 3	30 chars		Textbox	
Customer Comments (Container)			Textbox	
Data-bound - Job				
Address Line 1	40 chars		Textbox	
Address Line 2	40 chars		Textbox	
Address Line 3	40 chars		Textbox	
Address Line 4	40 chars		Textbox	
Contact Name	40 chars	Y	Textbox	
Customer Name	50 chars		Textbox	
Customer Reference (Job)	20 chars		Textbox	
Email	Valid email address		Textbox	
Mileage End (Job)	Numeric with 2dp		Numeric	
Mileage Start (Job)	Numeric with 2dp		Numeric	
Owner Name	50 chars		Textbox	
Post Code	Valid UK postcode	Y	Textbox	
SO Number	40 chars		Textbox	
Trailer ID (Job)	20 chars	Y	Textbox	
User Notes			Textbox	
Data-bound - Load				
Load Information			Text Area	

Label	Validation	Reqd	Type	Values
Mileage End (Load)	Numeric with 2dp	Y	Numeric	
Mileage Start (Load)	Numeric with 2dp		Numeric	
Route Code	40 chars	Y	Textbox	
Trailer ID (Load)	20 chars	Y	Textbox	
Data-bound - Products				
Customer Comments (Product)			Textbox	
Customer Reference (Product)	30 chars		Textbox	
Gross Weight	Numeric with 3dp	Y	Numeric	
Position	0-999	Y	Numeric	
Product Weight	Numeric with 3dp	Y	Numeric	
Services - Info				
Code 1	50 characters		Textbox	
Code 2	50 characters		Textbox	
Code 3	50 characters		Textbox	
Group	10 characters		Textbox	
Mileage	Numeric with 2dp		Textbox	
Type	30 characters		Textbox	
Unit Type	12 characters		Textbox	
Services - Product				
Authority	30 characters		Textbox	
Barcode	30 characters		Textbox	
Casing	30 characters		Textbox	
Casing Destination	30 characters		Drop-down List	MajorRepair,Casing Bank,COP Stock,Scrap,Driver
DOT Code	4 Numeric wwyy		Textbox	
Location	13 characters		Textbox	
New or Remould			Drop-down List	Remould
Notes	255 characters		Text Area	
Pressure	5 Numeric with 1dp		Numeric	
Quantity	8 Numeric		Textbox	
Regroove			Checkbox	
Removal Reason	12 characters		Drop-down List	
Return to SE	30 characters		Checkbox	
Serial No	30 characters		Textbox	
Services Supplied	255 characters		Checkbox List	
Torque	10 Numeric		Numeric	
Tread Depth	3 numeric with 1dp		Numeric	
Work Type	30 characters		Textbox	
Work Types	30 characters		Drop-down List	
Services - Activity				
Action	30 characters		Drop-down List	
Authority	30 characters		Textbox	
Comments	255 characters		Text Area	
Complete			Checkbox	
New or Remould			Drop-down List	New,Remould
Pressure	5 numeric with 1dp		Numeric	
Quantity	8 Numeric		Numeric	
Regroove			Checkbox	
Services - Completion				

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Label	Validation	Reqd	Type	Values
Check 1			Checkbox	
Check 2			Checkbox	
Check 3			Checkbox	
Customer Damage			Checkbox	
Diagnosis			Text Area	
Fault	100 characters		Textbox	
Ref 1	10 characters		Textbox	
Ref 2	10 characters		Textbox	
Ref 3	10 characters		Textbox	
Ref 4	10 characters		Textbox	
Ref Narrative	100 characters		Text Area	
Spec Required			Checkbox	
VNOS			Checkbox	
Device				
Device Country			Textbox	
Device Current Date (DD/MM/YYY			Textbox	
Device Current Time (HH:MM)			Textbox	
Device GPS			Textbox	
Device ID			Textbox	
Device Language			Textbox	
Device Locale			Textbox	
Device Timezone			Textbox	
Device Type			Textbox	
General				
Card Number			Textbox	
Comments			Text Area	
Lot Number	20 numeric		Textbox	
Other			Text Area	
Report			Text Area	
Return Number			Numeric	
Waiting Time			Numeric	
General - Contact				
Door Number			Textbox	
Email	Valid email address		Textbox	
Phone No	Valid UK phone no		Textbox	
Postcode			Textbox	
Title			Drop-down List	Mr,Mrs,Ms,Miss,Dr
Load End				
Fuel Litres			Numeric	
Parking Ticket Number			Numeric	
Post-Load Checks			Checkbox	Delivery Notes Signed/Printed Full Uniform Worn Failures phoned in Checked back at depot Equipment Returned
Pallet Networks				
Return Pallets			Numeric	
Unload Pallets			Numeric	
Risk Assessment				
Hazards			Checkbox	Existing live pipework, services and plant Adverse weather conditions Chemicals/Substances present in existing System

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Label	Validation	Reqd	Type	Values
				Transport of Items to and from site Tripping/Slipping Fall from height (platform) Transport of vehicles around site Mechanical lifting and moving Use of Substances hazardous to health Use of portable electrical tools Ventilation Contact with hot and cold surfaces Fire (including static electricity) Storage/Stacking Falling from height (ladder) Solitary working
Person Responsible for Safety			Textbox	
Risk Assessment			Checkbox	Low,Medium,High
Risk Control			Checkbox	Boots Hard Hat Hi Vis Chemical Boots Goggles Glasses Gloves Chemical Gloves Harness Lanyard Trolley Chemical Suit Ear Defenders
Services				
Number of Engineers			Numeric	
Terms and Conditions				
Likely to use this service again?			Drop-down List	Yes No Maybe
Suggestions			Text Area	
Tipper				
Cleaning			Drop-down List	Swept Washed Steamed Disinfected
Vehicle Type			Drop-down List	27T
WAF No			Textbox	
Weighbridge Number	1-5 digit number, not 0		Numeric	
Weighbridge Weight			Numeric	

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16 UDF Use Cases

16.1 Additional Job Details

Jobs of all kinds are subject to the same process in *CALIDUS* ePOD:

- A list of jobs.
- Seeing the details of a job.
- Starting and Arriving at a job.
- Capturing the details of a job.
- Completing the job.

The standard configuration of C-ePOD allows for the deep configuration of which parts of the process above are used, how the jobs themselves are actioned and how the jobs are completed.

However, in some cases, the data required to be captured at each stage of the job is subject to the particular requirements of the customer's processes themselves.

This section focuses on the arrival and processing of the job itself, and where you can configure additional data capture on the job. Later sections will deal with specific configuration regarding products, items (containers) and services.

You can configure the following areas to have additional data capture through UDF:

- Pre-Job - after arrival but before processing the details of the job.
- Job Details - during execution of the job itself, to be entered before the job is completed.

You can configure these against:

- the site.
- the job group.

After the driver arrives (or when the driver starts the job if Job Arrival is not enabled), you can configure the application for some post-arrival checks.

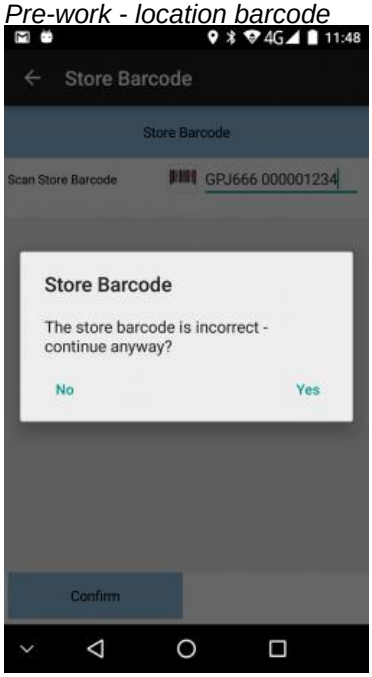
The use cases for this are:

- Scanning of a location barcode to confirm arrival at the correct location.
- Weighbridge weight and number.
- Arrival photographs.
- Gift Aid registration.

In these cases, you can add specific buttons to these forms, so that the application can validate the data entry. In this case, the system can display alerts and confirmations, allowing the system to be widely configured.

- 

Pre-work - location barcode

- 

Pre-work - Validation

More details on the operation of this process can be found here: PDA Job Details.

Once the driver starts a job, the first tab of the device contains information on the job, whereas the other tabs are used for the standard completion of the job. Although primarily used as a display area for the job details, you can configure additional job-level data capture here. The user can enter this any time before the job is marked as completed. If you configure the forms a required or the form has required fields in the UDF, the device will prompt the user to enter the details before completion.

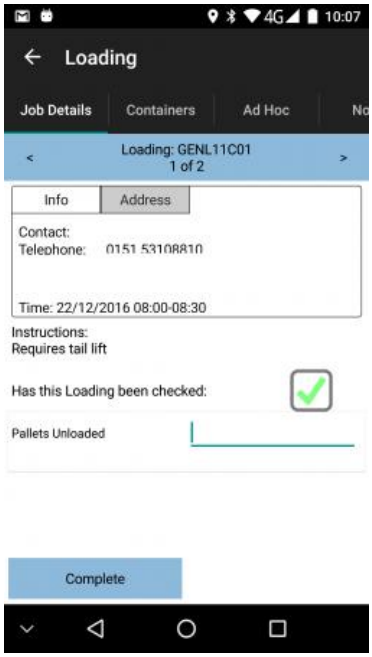
Use cases for additional job details:

- Capturing ad-hoc items collected/delivered. For example, a list of pallet types that may be collected at the location for return, with a quantity returned for each type.
- Weighbridge weight and number.
- Photographs taken before or during completion of the job. Furthermore, you can enhance this process by making photos required (where at least one photograph must be taken) or having a required check-box associated with the job details, for example with the text "Have all required photos been taken?"

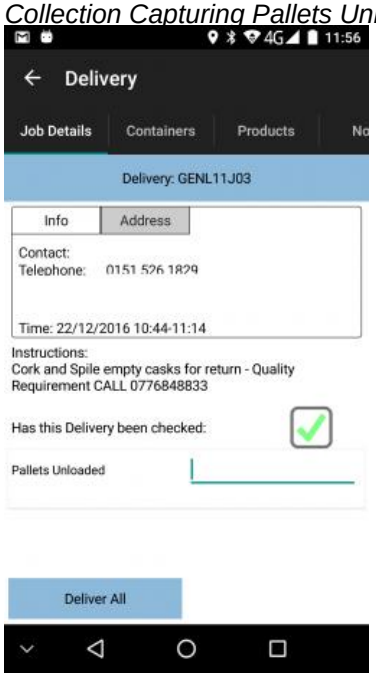
You can base the requirement to enter these additional details on whether the job is completed without any issues. So, in the case where some items could not be collected or delivered, you can configure it so that the UDF must be entered then, but if the job is completed fully, the user need not enter it. This is primarily used when entering failed delivery, collection checks or feedback.

Furthermore, if *CALIDUS* ePOD is linked to an external system providing the jobs, you can pre-set Job Details UDF in the jobs when the jobs are sent to C-ePOD. This configuration is used in preference to any Job Details UDF configured in the system. Again, the use here is unlimited, but has been used in the past for the following:

- Displaying summaries of items types being delivered/collected.
- Displaying summaries of additional materials to be delivered (e.g. dry/wet ice, packaging).
- Displaying equipment required in order to complete this job.
- Overriding configuration in very specific jobs.



Collection Capturing Pallets Unloaded



Delivery Capturing Pallets Unloaded

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More details on the operation of this process can be found here: PDA Collection and PDA Delivery.

16.2 Terms And Conditions

CALIDUS ePOD features an ability to define terms and conditions (T&Cs) and up to 3 check-boxes at the point of customer signature on any job of a particular job group. For many customers, this is perfectly reasonable. If you use UDF however, T&Cs can be greatly expanded and as much data can be captured as is desired.

The application displays T&Cs whenever a signature is captured, on the T&Cs tab.

Terms and conditions can be defined for the following types of signature:

- Customer signatures:
  - for collections.
  - for deliveries.
  - for services.
  - Arrival at collections.
  - Arrival at deliveries.
- Driver signatures:
  - for collections.
  - for deliveries.
  - for services.
  - for jobs at unmanned locations.
  - for vehicle defect checks.

These T&Cs may be configured against:

- the site
- the job group (except for vehicle defect checks)

When specified, the application uses these UDF T&Cs in preference to anything configured against the job group. So:

- If you have configured UDF against the job group, this will be used.
- If you have configured UDF against the site, this will be used.
- If you have not configured any UDF, the standard job group configuration will be used.

The UDF configuration of Terms and Conditions is far more flexible than the standard mechanism.

For example:

- UDF is the only way to configure Driver T&Cs.
- A site-level UDF configuration can set the generic T&Cs, with these being over-ridden for certain job groups by configuring specific UDF just for those exceptional job groups.
- Collections, deliveries and services may require different T&Cs - UDF can control this without having to manipulate job groups against jobs.
- Using job groups against jobs could mean that different T&Cs for one type of service could differ to T&Cs of another service.

In most cases, terms and conditions are simply text to be displayed - in this case, you can configure label fields to enter the paragraphs of the terms.

In the case where you require some data entry, standard T&Cs allows for up to 3 checkboxes to be defined - you can't specify any other types of fields (for example, drop-down lists, text entry, etc). UDF allows all this and more:

- All types of fields may be defined, for example, text or numeric entry, check boxes, drop-down lists and even photos can be added.
- You can enable validation to ensure the signatory isn't entering invalid data.

- You can pre-set values in the fields, for example, pre-checking a box for the signatory.
- You can require fields to be entered, for example, "Check this box to agree to the T&Cs above" - not checking the box means that the signature cannot be completed.

Note: At this time, photos may not be taken within Signatures. If the T&Cs is configured to have photos, the signature screen will simply display the text of the label, without the facility to enter the photos themselves.

Use cases for data entry in T&Cs:

- Cash payments.
- Email address capture for customer services/promotional material.
- Acceptance of terms and conditions.
- Data capture by the driver (for example, a number of empty pallets picked up, payment received, demurrage, gift aid ID, etc).
- Exit weighbridge weight and number.
- Gift Aid registration.

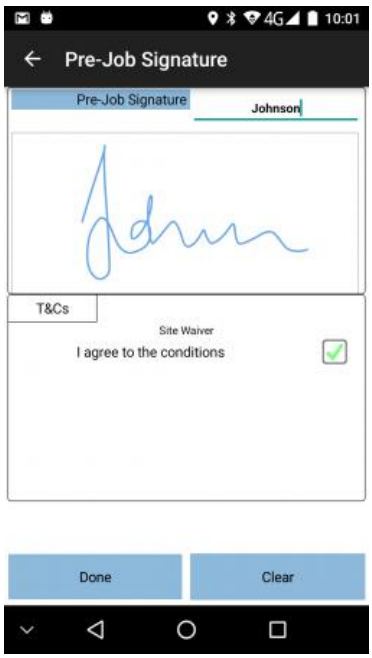
As mentioned above, you can only configure driver T&Cs through UDF. This can then be used for many different purposes, for example:

- Reminders to drivers of their responsibilities to the company and/or the customer.
- Unmanned location information.

You can configure the mobile device application as standard to require driver or customer signatures upon arrival (with pre-job signatures). Again, a you can configure a single set of T&Cs for these signatures as standard. However, using UDF, you can make these more complex (as shown above in normal signatures) and specific to the driver or customer, where previously you couldn't control this.

Use cases for this functionality are:

- Site Waiver documentation.
- Gatehouse data capture, for example, weighbridge.
- Capturing demurrage time.



Pre-job Signature

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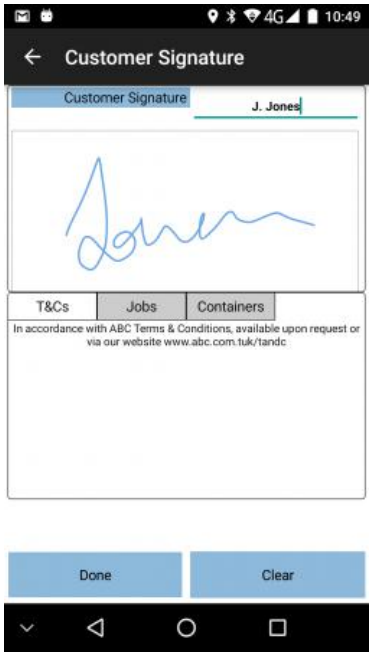
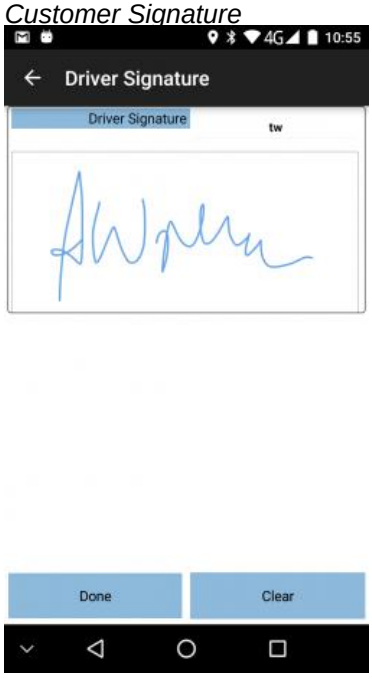
- 

Customer Signature
- 

Driver Signature

More details on the operation of this process can be found here: PDA Job Confirmation.

16.3 Load Metrics

You can configure load start and end metrics without UDF - in this case, the device will display a standard start/end load message and prompt for ODO readings.

However, there are instances where this start and end of load can be used for much more - UDF configuration of the load start and end metrics pop-up allows the system to be configured to capture much more information.

The Job List screen displays and prompts for entry of load metrics through a pop-up screen.

The application prompts for load start metrics whenever a load is picked up by a user on a device. If the system automatically allocates the load, then the load start metrics will appear as soon as the load is on the device. If the driver has to accept the load before it is allocated, the application will prompt for the load start metrics after the load is accepted.

The application prompts for load end metrics at the end of a load (when the driver has completed all jobs.

The application will not prompt for metrics (start or end) if they have already been filled in.

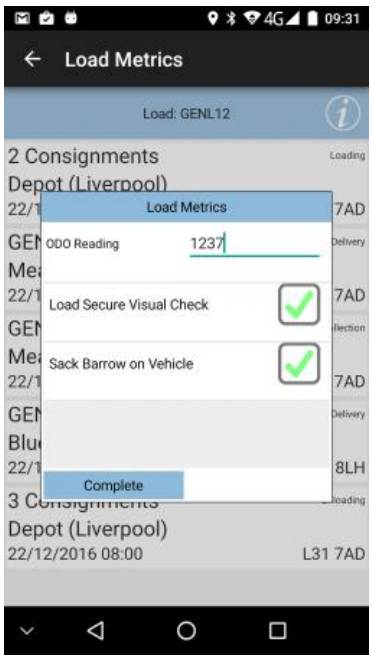
You can only configure load start and end metrics against the Site.

Use cases for load start metrics:

- Driver equipment requirements.
- Driver reminders.
- ODO readings.
- Arrival/departure weight.
- Driver debrief information (Q&A, accrued costs, fuel drawn, receipts, etc)
- Trailer/seals capture.

Importantly, UDF at Load Metrics can be data-bound, meaning that, even though this is captured as UDF, it can still update the standard C-ePOD data fields, so that customers relying on these standard data elements are unaffected by extending the data entry at load start and end metrics. Specifically, this is used here to:

- Set the trailer on the Load.
- Set the ODO start and end on the Load.

- 

Start Metrics

More details on the operation of this process can be found here: PDA Job List and PDA Job Confirmation.

16.4 Service Jobs

Service jobs can consist of the following sections, in addition to the normal job-level processing:

- Info - the key information about the item being worked on.
- Pre-work - optional information required to be entered before the item is worked on.
- Activities - the activities undertaken.
- Products

```
* Installed/Returned Products.
```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```
    * For Tyre service jobs, Installed or Removed tyres and services supplied actions.
```

- Returned Products.
- MC Refs - IDs or references of the item being worked on.
- Diagnosis - work completion notes and data.
- Post-work - optional information required to be entered after the item has been worked on.

Each of these process steps can be enabled or disabled as standard. The key fields on the Info tab can be modified as standard through the style of the device.

However, UDF can also be configured to enter additional information at the following stages of the process:

- Pre-work.
- Info.
- Diagnosis.
- Post-work.
- Tyre Service jobs

```
    * Service Product
    * Service Activity
```

You can configure these against:

- the Site.
- the job group.
- the product group - the type of item being worked on.
- Additionally Service Activity can be configured to Service Type level, for Tyre Services.

Info UDF is the most flexible when combined with product group entry. For example, you can configure UDF so that, once a particular product type is identified, the device can prompt for additional information. This has been used in the past as follows:

- Garden furniture, determining size, radius, seats, etc.
- Gas burner make/model, determining parts to be used, sub-identifiers being entered.
- Vehicle type and additional information (VIN, SIM, Reg, etc).

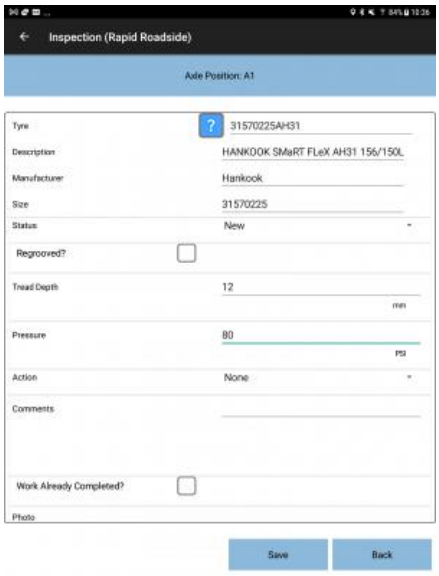
Info UDF is added to the Info tab for entry, below any key fields configured for the style of the system.

Pre- and post-work checks are optional and again you can configure them by the product type. The driver can start pre- and post-work checks (if they are configured for the system) by clicking on the provided button on the Info (pre-work) and diagnosis (post-work) tabs.

Use Cases for pre/post-work checks:

- Work permits.
- Site safety checks.
- Installation pre-tests for specific products.
- Installation tests for specific products.
- Customer feedback.

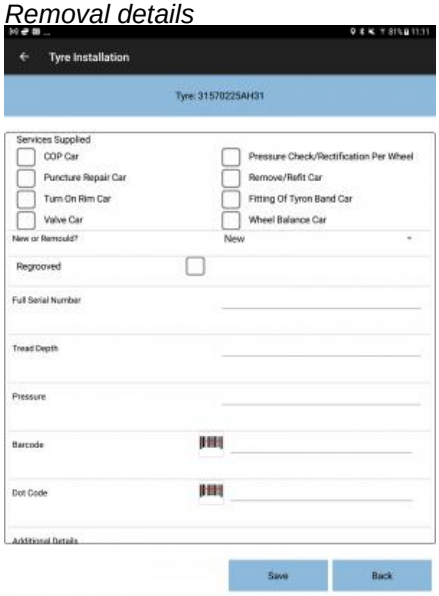
When using a Fleet Management (tyre-based) service job, activities and products can have UDF attached to them, which must be completed or the service product or activity is considered incomplete. The most common use of this is to capture additional details on inspection, installation, removal or service of a tyre, such as tyre pressure, tread depth, etc.

- 

Inspection details

- 

Removal details

- 

Installation details

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- 

Services Supplied details

Diagnosis (or Service Completion) UDF is useful for straight data capture in addition to the standard information. This has been used in the past solely for additional notes entry but could be used to capture any information required for the customer's process.

This could be used to capture general additional information about the service item, for example, in Fleet Management, to capture torque details, services supplied against the vehicle in general, etc.

- 

Completion

Diagnosis UDF is added to the Diagnosis tab for entry, beneath any standard fields configured for the style of the system.

More details on the operation of this process can be found here: PDA Service and here: PDA Service Tyres.

16.5 Vehicle Defect Checks

You configure vehicle defect checks through UDF. In earlier versions of the product, vehicle checks were configured using a bespoke screen but worked as a (feature-limited) sub-set of UDF. With the switch to full UDF, vehicle defect checks now benefit from the new features of UDF, like multiple photos at any stage.

Vehicle defect checks UDF differs slightly to normal UDF, in that it may be configured with the following additional parameters on the form:

- *At End* - vehicle checks are instigated at log on (if required), and at the end of every load.
- *Signature Required*.
- *Frequency* - in days that the checks must be performed.

The existing Required parameter indicates whether vehicle checks may be postponed rather than being forced to be completed.

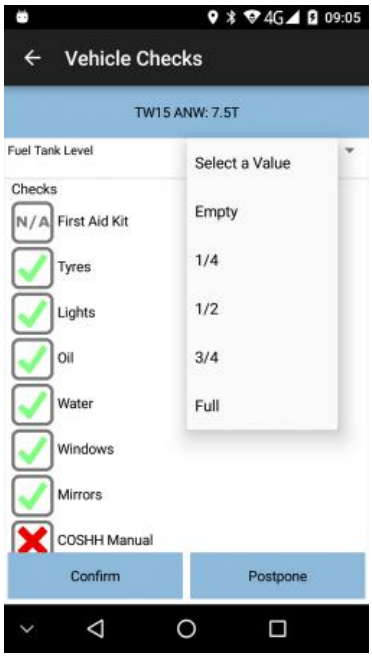
The application prompts for vehicle defect checks at the following stages:

- When the driver logs in to the application and that driver is different to the last driver that checked that vehicle, or the check has not taken place in the number of days specified in the duration.
- At the end of a load, if configured to do so.
- When changing vehicles on a load.
- At any time when an ad-hoc vehicle defect check is started, from the menu on the Job List screen.

You can configure these against:

- the site.
- the vehicle description.

In this way, you can configure the system with a standard defect check sheet and a specific check sheet for specific vehicle types, as determined by the description of the vehicle. For example, a Luton truck may have different check requirements to a 7.5T flat, as compared to the same with a tail lift.

- 

Vehicle Checks

More details on the operation of this process can be found here: PDA Vehicle Checks.

16.6 Exception Management

You can configure UDF for entry whenever an exception to the normal process takes place, to capture some more data or provide instructions to the driver.

The exception types are:

- Job cancellation.
- Container cancellation.
- Container clause.
- Product cancellation.
- Product quantity change.
- Service cancellation.
- Service item cancellation.

You can configure these against:

- the site.
- the job group.
- a reason code

Once the driver has entered the reason code, and presses the **OK** button, if UDF is required, a screen will pop up to enter the details.

Note: The cancellation UDF entered is sent back in the standard UDF fields as follows:

- For job cancellation, the UDF is saved in the Job UDF field (EPOD_JOB.EPL_UDF_JOBDETS)
- For container cancellation, the UDF is saved in the Container UDF field (EPOD_CONTAINER.EPL_UDF)
- For container clause, the UDF is saved in the Container UDF field (EPOD_CONTAINER.EPL_UDF)
- For product cancellation, the UDF is saved in the Product UDF field (EPOD_PRODUCT.EPL_UDF)
- For product quantity change, the UDF is saved in the Product UDF field (EPOD_PRODUCT.EPL_UDF)
- For service cancellation, the UDF is saved in the Job UDF field (EPOD_JOB.EPL_UDF_JOBDETS)
- For service item cancellation, the UDF is saved in the Service Diagnosis UDF field (EPOD_SERVICE.EPL_UDF_DIAGNOSIS)

Use cases for this functionality are:

- capturing additional information per reason code when a job is cancelled, for example, RTA, customer not in, etc.
- capturing driver notes when a job is cancelled.
- capturing information against a non-delivered item or product.
- displaying additional instructions to the driver.

More details on the operation of this process can be found here: PDA Exception.

16.7 Confirming Delivery/Collection

In standard processing, the driver confirms items as delivered/collected or cancelled - there is no additional data entry. The driver can confirm products as delivered/collected fully, confirmed as delivered/collected short or over, or cancelled.

When the driver delivers or collects items or products, your process may required additional information to be entered against that item or product. The UDF system allows for this to be configured.

After a driver confirms an item or product, if there is a UDF configuration, the screen will prompt for it when confirmed. The driver can also enter this manually before confirmation by long-pressing against the line and selecting the UDF form title from the pop-up action list.

If an item is a container of products, and the system is configured to do so, the products will be confirmed, then the container confirmed, at which point the container UDF will be prompted for.

Note: If an item or product is subsequently cancelled after UDF entry, the UDF entered is preserved.

You can configure UDF:

- Containers (items).
- Products.

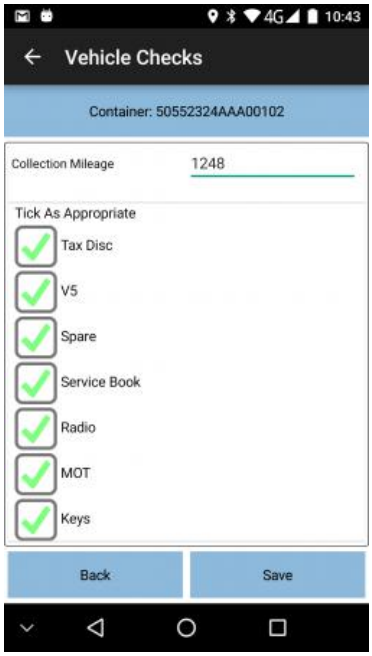
You can configure these against:

- the site.
- the job group.
- the product type (for product UDF).

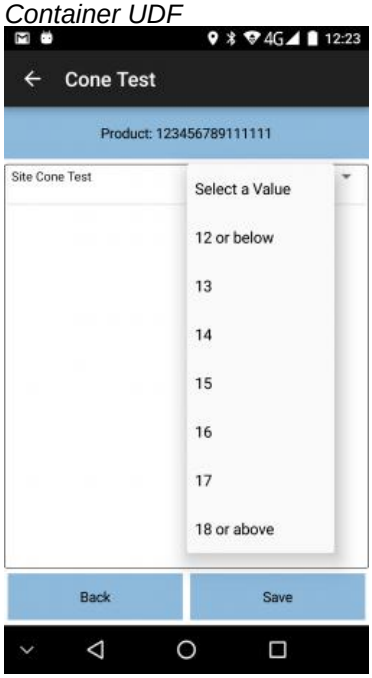
Note: UDF is not compatible with *Deliver All* functionality - UDF will not be prompted for items or products that are confirmed as part of this functionality.

Use cases for this functionality:

- Vehicle defect check against vehicles collected by the carrier.
- Cone test against Mortar products when delivered.
- Lot/batch capture against the collected item.



Container UDF



Product UDF

More details on the operation of this process can be found here: PDA Collection and PDA Delivery.

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16.8 Sub-Forms

Sub-forms are in a category by themselves. They aren't linked to any particular process, but can be used on any other UDF form, by adding a button linked to this form.

Its use cases are predominantly anywhere where there is a lot of data to be entered and only a small amount of space - sub-forms always display on the device in a full screen, triggered when the driver presses the button that links to this sub-form. As buttons can be made conditional based on another field (i.e. check this box, a button appears to enter more details through a sub-form), this is also useful to save clutter on complicated forms.

Use cases:

- Optional or required form entry at any stage.
- Specifically,

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* Gift Aid Declaration at customer signature.
* Tyre Swap information when installing or servicing a Tyre (tyre services only)
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Tyre Swap - Twinning service

- 

Tyre Swap - Swap button

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