



## STATEMENT OF WORK CHANGE REQUEST ESTIMATE

Client	JBG	Project	DEV	Site	DEV
Client Reference		Aptean Reference	346238	Estimate Version	0.2
Prepared By	A N Walker			Estimate Date	9/10/17
Invoice Reference				Priority	3
Customer	Oak Furnitureland			System Version	4.X

### Client Request

The requirement is to add validation to the lot number UDF scan for containers ("items") delivered to customers from the depots (the JBGSW site). The lot number that the user scans off the product label (GS1 barcode) in the UDF form should be validated against the container ID (item code) that the user scanned off the item label. This is to verify that the user has scanned both labels from the same box. ePOD doesn't have the product code for container deliveries so the change will require JBG to import the product code with the job details so that it can be validated.

### Aptean Solution

The existing code for validating and extracting GS1 barcode types must be modified to allow extraction and validation against multiple components (AIs) of the barcode.

The system will be modified to allow a new field type of "GS1 Barcode" to be configured in User-Defined Forms (UDF).

This type will then allow the configuration of each AI value to be extracted from the barcode, specifying whether this is default AI value to be returned, whether the value is required to be found in the barcode and any validation against this AI value. This will be done through a list of items for the field. At least one must be specified.

For this specific change, a field will be entered as "Scan Lot Number" of type "GS1 Barcode". The field will extract 2 items:

- AI "10 - Lot Number", required to be extracted, and validated as a numeric field from 1 to 20 in length.
- AI "91 - Agreed between Suppliers", not required to be extracted. If it is extracted, this will be validated as being the same as the value in EPL\_CODE\_2.



**Note:** Although the above is the expected configuration, the Product ID AI (91) could also be made required.

This configuration will be sent to the device for entry.

On the device, when a field of type "GS1 Barcode" is encountered, the device will display an entry box for the barcode field as now. However, additional display-only fields will be added for each AI type specified as required underneath it.

When a barcode is scanned or entered in this field, the device will extract all of the found values matching the list of AIs to be extracted. These will be displayed in the fields under the barcode scan entry field - the entry field will be left blank after values are extracted.

For this specific configuration, the screen will display the barcode entry field and two fields below for the extracted AI values, as shown in the prototypes below.

When a barcode is scanned in the field, the process will extract the values of the AIs configured and display them in the fields below. When a value has been scanned and extracted, the screen will change to display a button to clear the scanned values if required.

### Lot Number Entry

*Lot Number Entry, with extracted values*

When the user clicks **Save** on the form, the device will validate each extracted element with the validation specified against each field.

For this specific configuration, the lot number is required and must be numeric. Product ID is not required to be extracted but, if it is, the value must match the value of the product ID sent in EPL\_CODE\_2. **Note:** Although the above is the expected configuration, the Product ID AI (91) could also be made required.

The validation process will be changed to validate each specific extract. If any fails, the user will not be allowed to continue. The validation will highlight the field and the items in the field with the issues and show a generic error.

When viewing already entered UDF, for GS1 fields, all values already saved will be displayed on entry into the form.

The device will return the value in the first extracted item in the VALUE tag of the UDF. All extracted AI values will also be returned in additional VALUE tags within the ITEM tags, identifying the AI from which the value was extracted.

For this specific configuration, the extracted lot number will be returned in the VALUE tag.

**Note:** The completed UDF will be displayed in the C-ePOD Admin screen against the container (item), showing only the Lot Number label and the value for this.

This change will be completed in the latest version (V4) of the *CALIDUS* ePOD application.

**Warning:** Unknown costs for client/year (JBG/2017)

Cost Details			
Activity	Hours	Rate per hour (£)	Cost (£ Exc. VAT)
Requirements	0.00	0.00	£0.00
Change Request Evaluation	0.75	0.00	£0.00
Functional Specification	1.25	0.00	£0.00

Technical Specification	0.00	0.00	£0.00
Development	5.25	0.00	£0.00
Testing and Release	1.00	0.00	£0.00
Implementation	0.25	0.00	£0.00
Project Management	0.50	0.00	£0.00
<b>TOTAL</b>	9.00		£0.00

**Estimate excludes training, release to live and go live support.**

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# 1 EST 349562 JBG Retain PDA Part-Complete Load Data



## STATEMENT OF WORK CHANGE REQUEST ESTIMATE

Client	JBG	Project	SUP	Site	SUP
Client Reference		Aptean Reference	349562	Estimate Version	0.2
Prepared By	A N Walker			Estimate Date	1/5/18
Invoice Reference				Priority	3
Customer	Oak Furnitureland			System Version	4.X

### Client Request

If user logs into a device which has a part-completed load on it, but the load is not the one assigned to this user, the application considers this to be aged data and deletes the in-progress data to make room for the user's new load. The requirement is to retain the in-progress load data until the same (or different) user logs in and is assigned that load. It is understood that this could create multiple sets of load data on the device and requires an operational management process for this to work.

Additional requirement: The mobile device should occasionally check the server to see if the in-progress load is now updated on the server (cancelled or completed) and delete the in-progress data on the device.

### Aptean Solution

Configuration will be added for the mobile device to "Retain Load Information". This will be added to the C-ePOD Site table and to the Site Maintenance screen, on the *PDA* tab.

The Logon process currently wipes out all loads not applicable to that user/vehicle combination. If configured to Retain Load Information, this will be modified to not delete these loads. The device will attempt to upload any completed data (jobs, loads, etc) whenever it has a stable internet connection (so not just when the original user logs back in).

The incomplete load data will remain on the device until the user logs back in and completes the load/job, or if the load/job has been completed or cancelled from another device.

Logon will determine whether there is a load for that user and vehicle combination on the device. Only one load will be in progress for that user/vehicle combination, although there may be more on the device for other user/vehicle combinations. The process will be modified to ensure that the correct load on the device is determined to be the current load.

Currently, the device automatically updates all jobs on the current load at regular intervals. If there are multiple loads on the device, this process will be modified to auto-update the 'held' (i.e. non-current) load(s) as well. Note that this need not be at the same schedule as the current load. Updates to 'held' loads will not inform the user of any changes, major or minor, as they are not currently working on that load.

This change will be completed in the latest version (V4) of the *CALIDUS* ePOD application.

 **Warning:** Unknown costs for client/year (JBG/2018)

Cost Details			
Activity	Hours	Rate per hour (£)	Cost (£ Exc. VAT)
Requirements	0.00	0.00	£0.00
Change Request Evaluation	0.25	0.00	£0.00
Functional Specification	1.25	0.00	£0.00
Technical Specification	0.00	0.00	£0.00



Development	4.75	0.00	£0.00
Testing and Release	1.00	0.00	£0.00
Implementation	0.25	0.00	£0.00
Project Management	0.25	0.00	£0.00
<b>TOTAL</b>	<b>7.75</b>		<b>£0.00</b>

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## 2 EST 350225 JBG Remote application updates



### STATEMENT OF WORK CHANGE REQUEST ESTIMATE

Client	JBG	Project	DEV	Site	DEV
Client Reference		Aptean Reference	350225	Estimate Version	0.1
Prepared By	A N Walker			Estimate Date	1/5/18
Invoice Reference				Priority	3
Customer	Oak Furnitureland			System Version	4.X

#### Client Request

A method is required to allow the mobile application to be updated in the field. MDM is not possible due to the old version of Android on the M3 SM10, so options being considered are Google Play (hosted by JB Global) or the application itself updating - but this needs to be verified to confirm that the locking software does not prevent this (OBS have a device which can be used to check this)

#### Aptean Solution

**Note:** Hosting under Google Play as a separate bespoke application is not the recommended solution, due to the continued cost accrued for each *CALIDUS* ePOD mobile device application release built by OBS Logistics.

**Note:** The process below has been confirmed as working on Android mobile devices from version 4 onward. It is not known whether this would work on a mobile device locked by the client's device locking software. In order to test this, a prototype application will be required to be built, along with familiarisation with the locking software used by the client. Time for this is not included in this estimate and would be charged T&M, expected to be up to 2 days effort.

The mobile device application will be modified to check the latest version of the application available at the point of logging on to the system.

If the application hosted for the customer is a later version than the version running on the device, the application will ask the user whether this should be downloaded. Note: If the version is marked as required, this step will be skipped and the device will enforce downloading of the new version.

The device will show progress of the download, and then will trigger the installation process for the new version before exiting the application.

**Note:** If the user were to cancel the installation of the new version, upon restart of the application the process above will be followed again, either asking for permission or enforcing the download and installation of the new version.

**Note:** In order to allow installation from file, the device must be configured to allow installation of apps from Unknown Sources. The exact process for achieving this differs with Android versions and models.

This change will be completed in the latest version (V4) of the *CALIDUS* ePOD application.

**Warning:** Unknown costs for client/year (JBG/2018)

Cost Details			
Activity	Hours	Rate per hour (£)	Cost (£ Exc. VAT)
Requirements	0.00	0.00	£0.00
Change Request Evaluation	0.25	0.00	£0.00
Functional Specification	0.50	0.00	£0.00
Technical Specification	0.00	0.00	£0.00
Development	2.25	0.00	£0.00
Testing and Release	0.50	0.00	£0.00



Implementation	0.25	0.00	£0.00
Project Management	0.25	0.00	£0.00
<b>TOTAL</b>	4.00		£0.00

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### 3 EST 350226 JBG Hide spare job or prevent update



## STATEMENT OF WORK CHANGE REQUEST ESTIMATE

Client	JBG	Project	DEV	Site	DEV
Client Reference		Aptean Reference	350226	Estimate Version	0.1
Prepared By	A N Walker			Estimate Date	1/5/18
Invoice Reference				Priority	3
Customer	Oak Furnitureland			System Version	4.X

#### Client Request

A method is required that prevents the 2nd job (the 'spare job') on the device from being seen by (or if not, updated by) the user until it is updated with products.

#### Aptean Solution

Loads are being sent to *CALIDUS* ePOD from the ERP with an additional job on them (a 'spare' or empty job). This is there to hold open the load when all normal jobs are complete, so that the ERP can send in additional jobs for the load if required (for shortages on prior deliveries, or late receipts for the day).

The issue is that the drivers have been completing these jobs before day-end, meaning that additional jobs cannot be set to the device on those loads.

Configuration will be added to the Site level in the system to control "Hide Zero-Item Jobs". This will be added to the C-ePOD Site table and to the Site Maintenance screen, on the *PDA* tab.

If the system is configured for this functionality, the mobile device will never display a job that has no items or containers. This includes:

- When showing all jobs
- When showing outstanding jobs
- When consolidating/deconsolidating
- When selecting multiple jobs to cancel

With this functionality in place, a mobile device user will *not* be able to complete a load that only has an empty job on it, as the empty job will be hidden.

Note that the only way to complete these loads will be to cancel or remove the empty job from the load. The expected mechanism of doing this will be to remove the job from the Load or cancel the job through the interface from the ERP. Alternatively the job may be cancelled or deleted through the *CALIDUS* ePOD Administrative console.

This change will be completed in the latest version (V4) of the *CALIDUS* ePOD application.

**Warning:** Unknown costs for client/year (JBG/2018)

Cost Details			
Activity	Hours	Rate per hour (£)	Cost (£ Exc. VAT)
Requirements	0.00	0.00	£0.00
Change Request Evaluation	0.25	0.00	£0.00
Functional Specification	0.50	0.00	£0.00
Technical Specification	0.00	0.00	£0.00
Development	2.75	0.00	£0.00
Testing and Release	0.50	0.00	£0.00



Implementation	0.25	0.00	£0.00
Project Management	0.25	0.00	£0.00
<b>TOTAL</b>	4.50		£0.00

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## 4 EST 350228 JBG Restrict access to PDA features



### STATEMENT OF WORK CHANGE REQUEST ESTIMATE

Client	JBG	Project	DEV	Site	DEV
Client Reference		Aptean Reference	350228	Estimate Version	0.1
Prepared By	A N Walker			Estimate Date	1/5/18
Invoice Reference				Priority	3
Customer	Oak Furnitureland			System Version	4.X

#### Client Request

Can the "Email Pending Messages" option be restricted so that the user can only use this option by entering a password which can be set at the site level (issuing a temporary password isn't required). Same for clear load data.

Note - on the M3 device the 3 dots is a hard button - much easier to do accidentally.

Note - this should also work when accessing these options from the long-press on the logo.

#### Aptean Solution

Configuration will be added to the Site level in the system to control "Password-controlled System Options". This will be added to the EPOD Site table and to the Site Maintenance screen, PDA tab.

When the Logo on the login screen is long-pressed, the device offers a selection of options, as follows:

- Application Info
- Email Pending Messages
- Audit Activity
- Reset System Data
- Clear Load Data
- Clean Application Data
- Close

When the options "Email Pending Messages" or "Clear Load Data" are selected from this menu, and the device is configured for password-controlled System Options, the device will pop up a password confirmation option, if a remote administration user has been configured for the system. This will be almost identical to the pop-up on the device when attempting to manually change configuration settings.

So, if there is a Remote Administration user set up for the system, the device will prompt for a user-name and password. The user will be required to enter the Remote Administration User ID, and the password for this user, in order to access the option selected.

When pressing the hamburger (triple-dot) menu on the Job List screen, the user is presented with a number of options, depending on the status of the load and actions being taken:

- Refresh Load
- Show All jobs
- Log Out
- Change Vehicle
- Unplanned Ad Hoc Collections
- Load Information
- Audit Activity
- Email Pending Messages
- Vehicle Checks
- View Last Vehicle Check
- Job Swap
- Cancel Jobs
- Consolidate jobs
- Deconsolidate Jobs
- Exit Selection



When the option "Email Pending Messages" is selected from this menu, and the device is configured for password-controlled System Options, the device will pop up a password confirmation option, if a remote administration user has been configured for the system. This will be identical in form and function to the previous confirmation dialogue box.

The new dialogue will be created as a common system function and may be called from any of the above processes. The existing call of this function (from the Settings dialogue) will be modified to use this new common function.

This change will be completed in the latest version (V4) of the *CALIDUS* ePOD application.

**⚠ Warning:** Unknown costs for client/year (JBG/2018)

<b>Cost Details</b>			
<b>Activity</b>	<b>Hours</b>	<b>Rate per hour (£)</b>	<b>Cost (£ Exc. VAT)</b>
Requirements	0.00	0.00	£0.00
Change Request Evaluation	0.25	0.00	£0.00
Functional Specification	0.50	0.00	£0.00
Technical Specification	0.00	0.00	£0.00
Development	3.00	0.00	£0.00
Testing and Release	0.50	0.00	£0.00
Implementation	0.25	0.00	£0.00
Project Management	0.25	0.00	£0.00
<b>TOTAL</b>	<b>4.75</b>		<b>£0.00</b>

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