RAMCO AVIATION SOLUTION

ENHANCEMENT NOTIFICATION

Version 5.8.9

MX-Mobility

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WHAT'S NEW IN MechanicAnywhere?

Ability to view Work Assignment and Work Actuals in a Calendar in MechanicAnywhere

Reference: APRP-155

Background

In Aircraft Maintenance, the tasks / discrepancies are assigned to aircraft mechanic engineers (AME) for execution. At any point of time, any of these assigned jobs could persist in impending stages of execution, such as Planned or In-Progress. A facility wherein the AME can inquire on the yet-to-be completed tasks / discrepancies in the Calendar format is required for the seamless tracking and execution of maintenance jobs along with the jobs scheduled for execution on the current date.

Change Details

The following changes have been incorporated in the **MechanicAnywhere** mobile application:

- New left pane activity **Calendar** added in the **Hamburger** menu to enable the mechanics to view tasks, discrepancies, material requests and component replacements in the Calendar format
- The **Calendar** screen will comprise of the following sections:
    - The **My Calendar** drop-down list box to select the calendar for viewing information for the current login user and also his/her direct reports.
    - The T**o Do** and **Actuals** tabs to view employee assignments and work actuals
    - The **Day, Week** and **Month** icons to select the type of the **Calendar** view
    - The selected **date range** for which the information is retrieved /displayed
    - The **Calendar** section that displays the chronology of the jobs / documents

My Calendar

- The **My Calendar** drop-down list box displays the calendars associated with the login user and also his/her direct reports in an alphabetical order. The users can select the calendar of their choice and view the information in the calendar format.

To Do and Actuals tabs

- The **To Do** tab displays the following data:
    - The tasks/discrepancies assigned/associated to the login user that are in the 'Planned' or 'In-Progress' status in the selected date range.
    - The material requests with Need Date falling in the selected date range for All Day view on top.
    - The notifications based on the 'Remind me Later' date falling in the selected date range for All Day view on top.
- The **Actuals** tab displays the tasks / discrepancies assigned/associated to the login user in all the statuses

except the following statuses: Planned, Cancelled, Deferred and Duplicate assigned to the login user in the period encompassing the selected date range.

Calendar Section

This section will display the information in the Calendar format based on chronological order in the period between the selected date ranges. The Calendar section for the **To Do** tab will display the **Assigned** and **My jobs** available against the login user in the Planned or In-Progress status.

Similarly, the Calendar section for the **Actuals** tab will display the **Assigned** and **My jobs** in all the statuses other than Planned, Cancelled, Deferred and Duplicate for the login user.
The table below illustrates the basis for retrieval and display in both **To Do** and **Actual** tabs in detail:-

Tabs	Retrieved Data shows	Basis for display of retrieved data in Calendar
To Do	All assigned jobs for the login user that are in 'Planned' or 'In-Progress' status	'Assigned Start Date & Time' and 'Assigned End Date & Time' of the task/discrepancy
	All My jobs of the login user that are in 'Planned' or 'In-Progress' status	'Planned Start Date & Time' and 'Planned End Date & Time' of the task/discrepancy
	MR and Notification under 'All Day' view in Calendar	1.For MR, 'Need Date'
		2.For Notification, 'Remind me later' date
Actuals	Show all my jobs for the login user that are in 'In-Progress' status	'Actual Start Date & Time' and summation of 'Actual Start Date & Time and Est. Elapsed Time' as the end time of the task/discrepancy
	All My jobs for the login user in all statuses except Planned/ In-Progress/ Cancelled	'Actual Start Date & Time' and 'Actual End Date & Time' of the task/discrepancy
	All assigned jobs for the login user in all statuses except Planned/ Cancelled/ Duplicate	'Assigned Start Date & Time' and 'Assigned End Date & Time' of the task/discrepancy

My Jobs in Calendar for 'To Do' and 'Actuals' include the following:

- Tasks/discrepancies for which the login user started the clock or booked timesheet
- Tasks/discrepancies the login user added to the package
- Tasks/discrepancies signed off by the login user (includes tasks / discrepancies even with one subtask / corrective action has been signed off)
- Tasks for which the login user has recorded execution comments
- Discrepancies for which the login user has recorded corrective action
- Tasks/discrepancies for which the login user has changed status

- Tasks / discrepancies for which the login user has raised a Material Request
- Tasks / discrepancies for which the login user has executed Component Replacements
- Tasks / discrepancies for which the login user has recorded parts consumption and return
- Tasks /discrepancies the login user has modified including Work Center / description/ sign off requirements change etc…

Selecting Calendar to view jobs

The **My Calendar d**rop-down list box enables the login users to view the **Direct** reports that they have created previously.

Viewing Previous / Next Jobs

The users can swipe left/right across the calendar to view the next/ previous corresponding day/week/month as per the view selected by taking into reference the date provided in the 'Date range' section along with all task/discrepancies for that day/week/month in the **Calendar** section.

More information on jobs

The users can tap the task / discrepancy / material requests / component replacement / notification in the map to know more on the specific item. A popup appears displaying more info on the selected item. For instance, on tap of a task, The Task Information popup appears. The popup displays key / brief information on the selected task. Likewise, popups for discrepancies, material requests and notifications also open up showing key information on the selected item.

Exhibit 1: Identifies the changes in the **Hamburger** menu in the **MechanicAnywhere** application

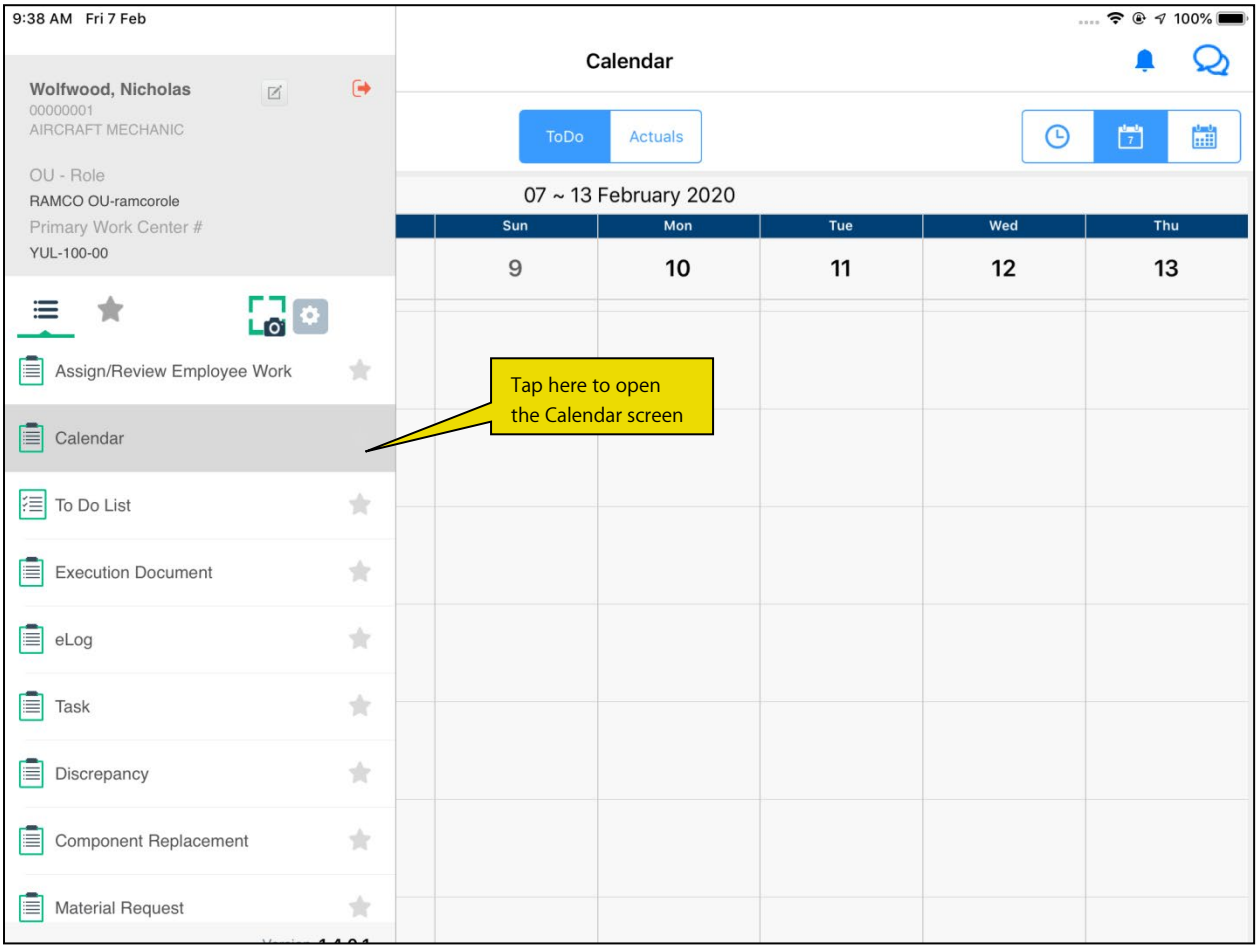


Exhibit 2: Identifies the **To Do** tab in the **Calendar** screen

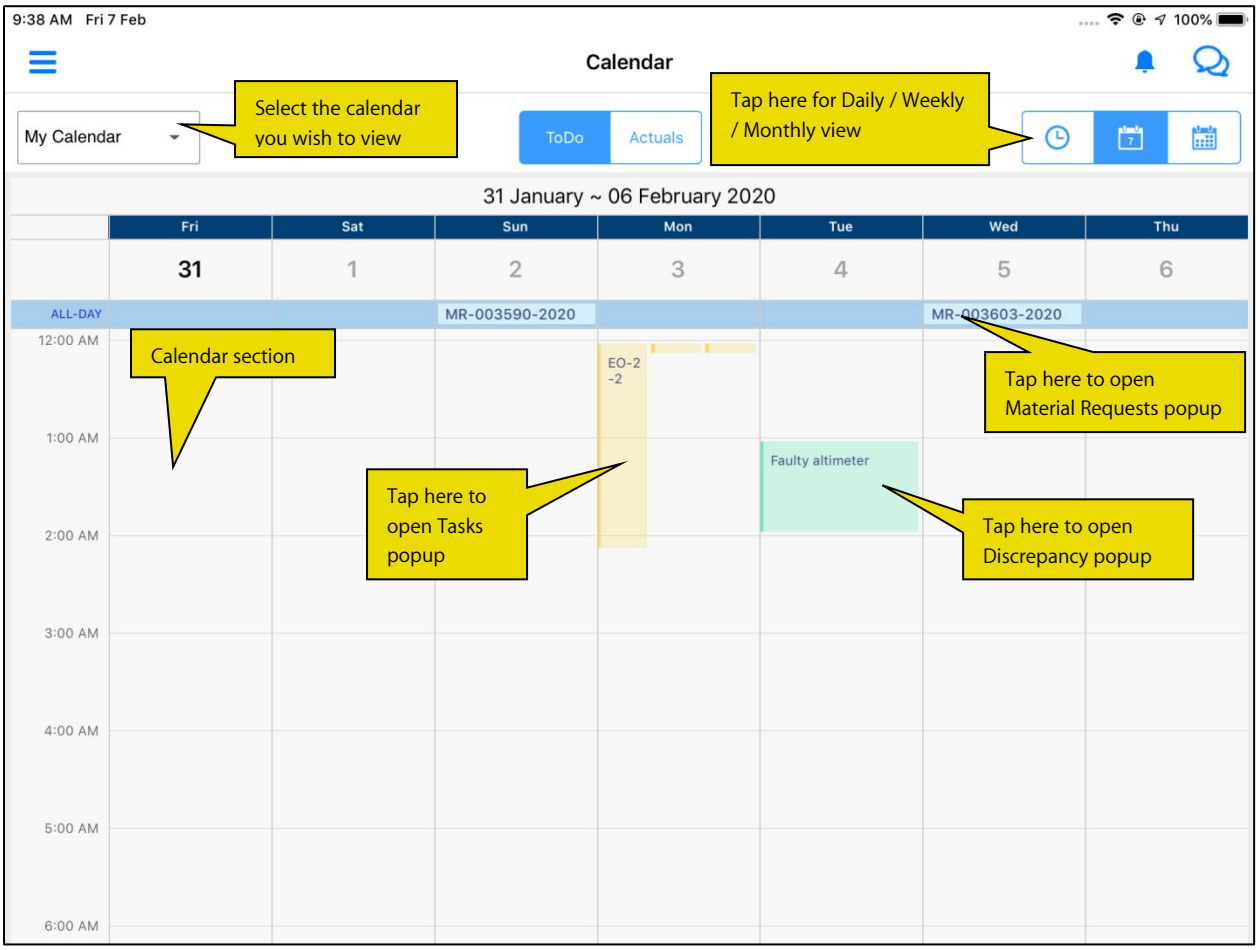


Exhibit 3: Identifies the **Task Information** popup

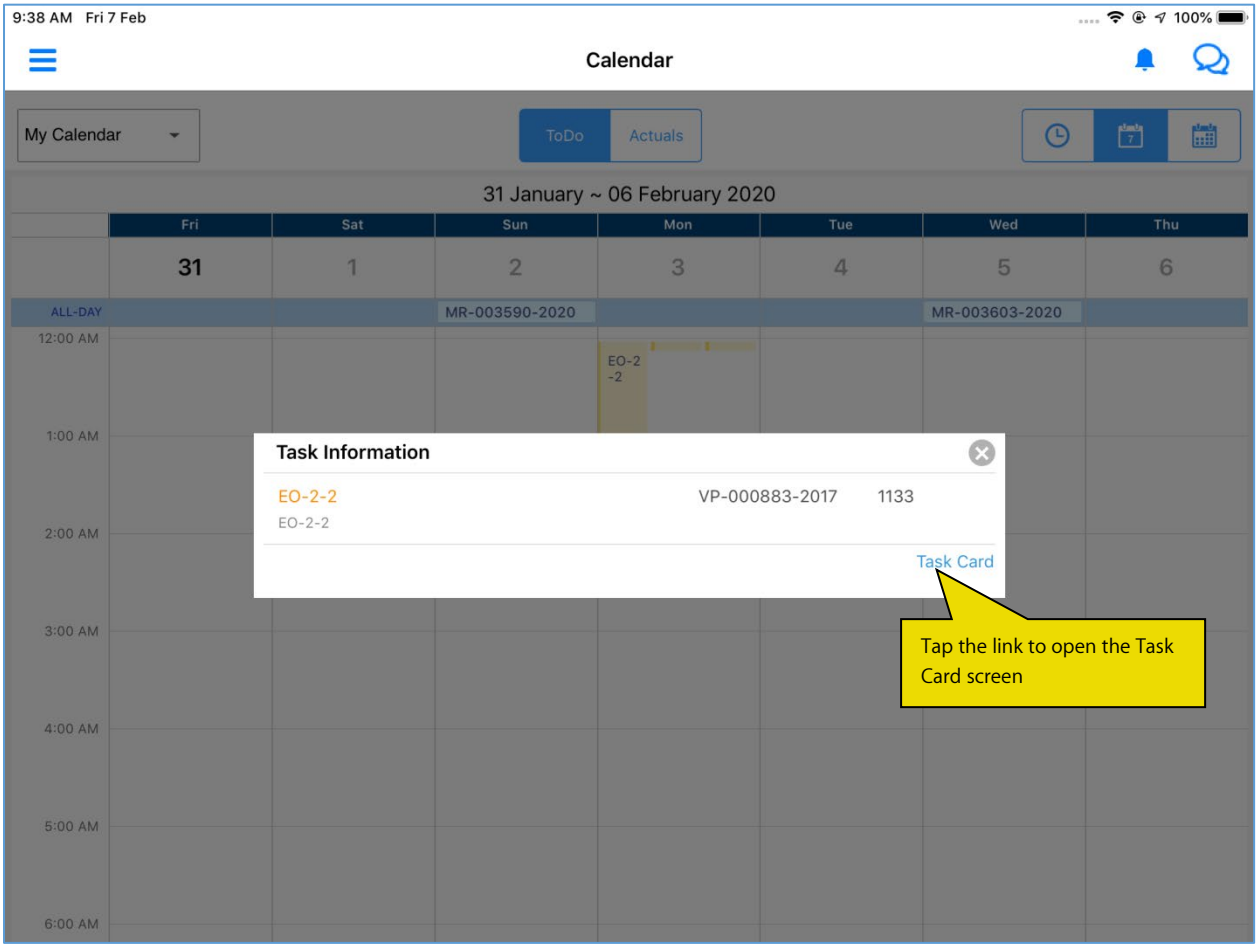


Exhibit 4: Identifies the **Discrepancy Information** popup

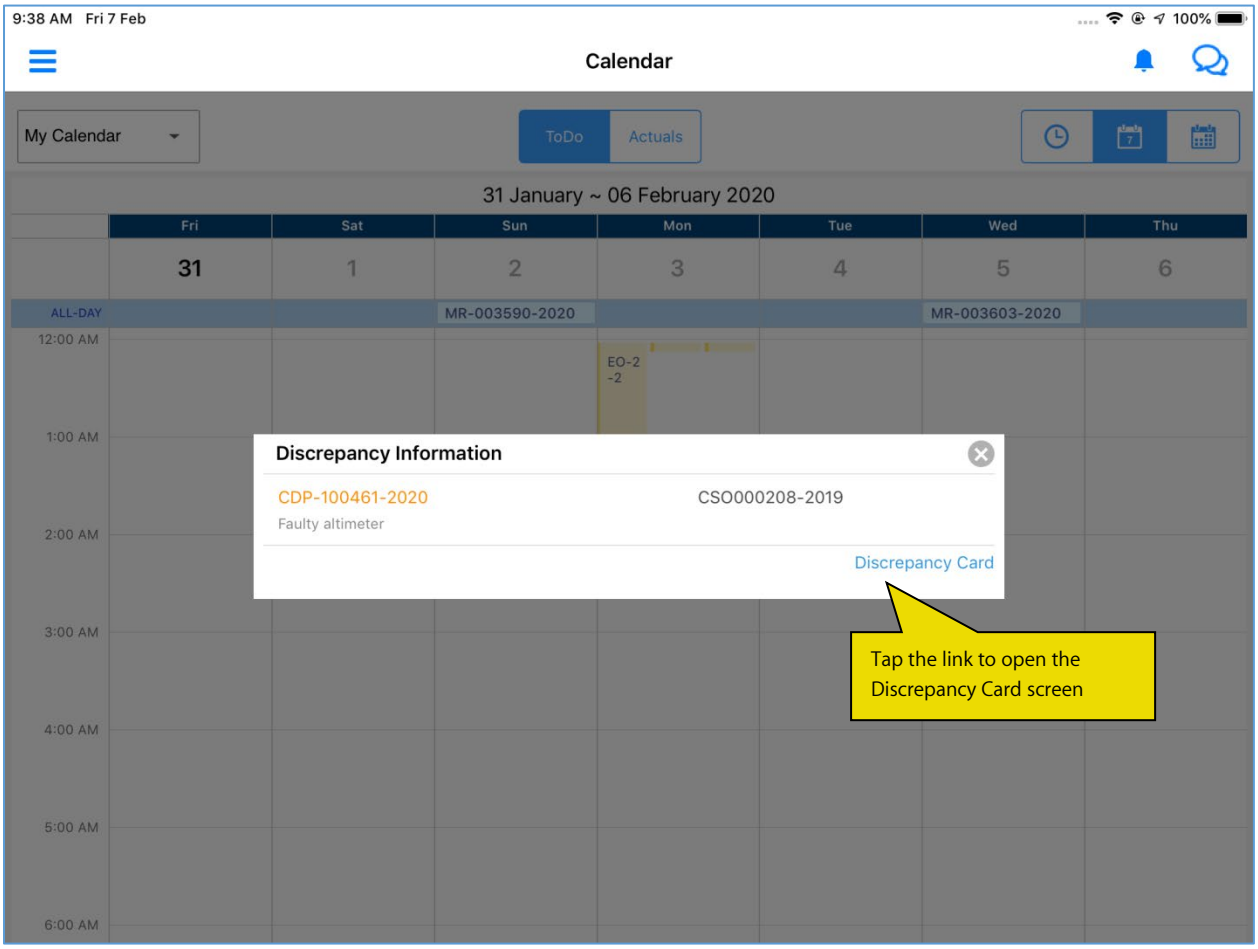


Exhibit 6: Identifies the **MR Information** popup

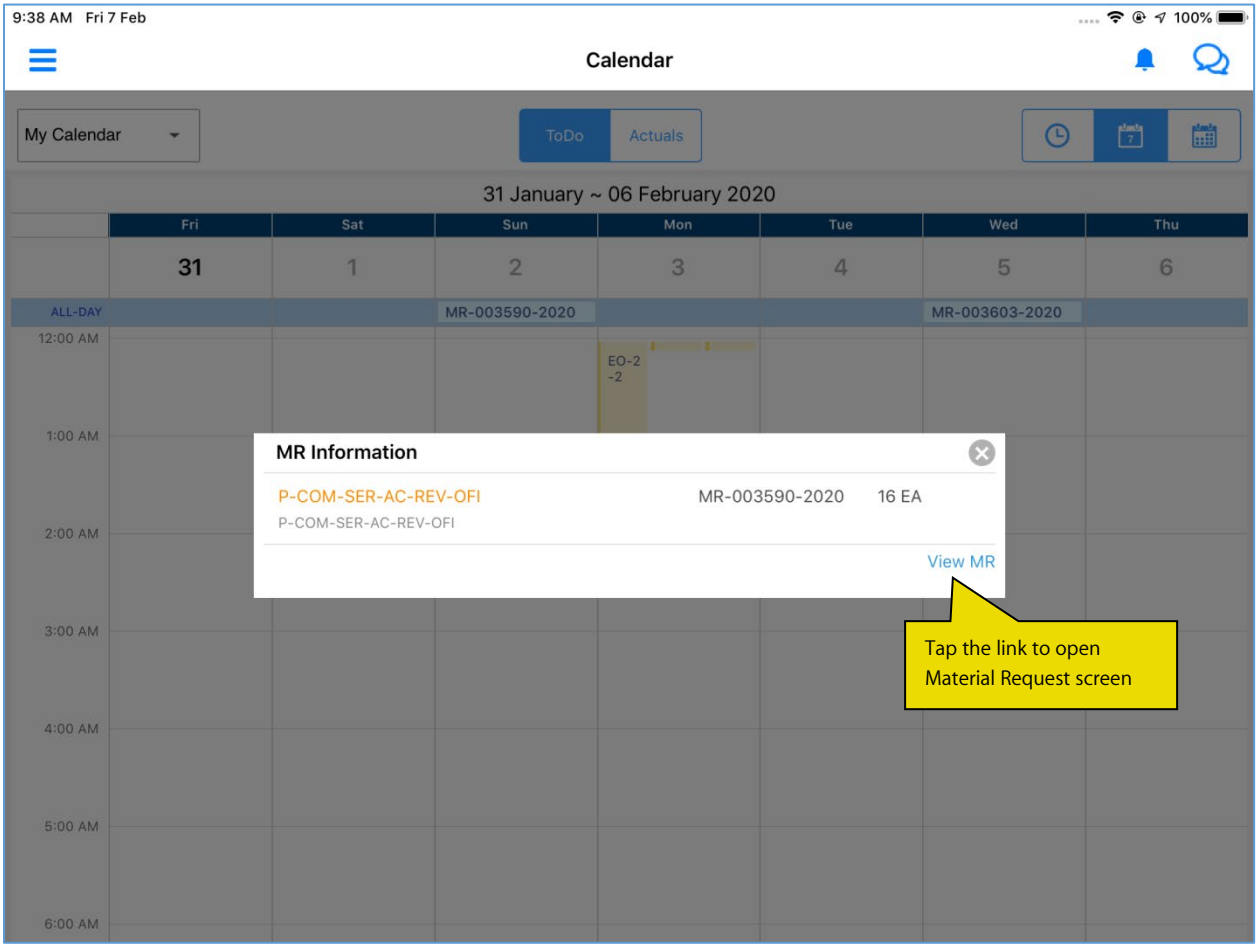
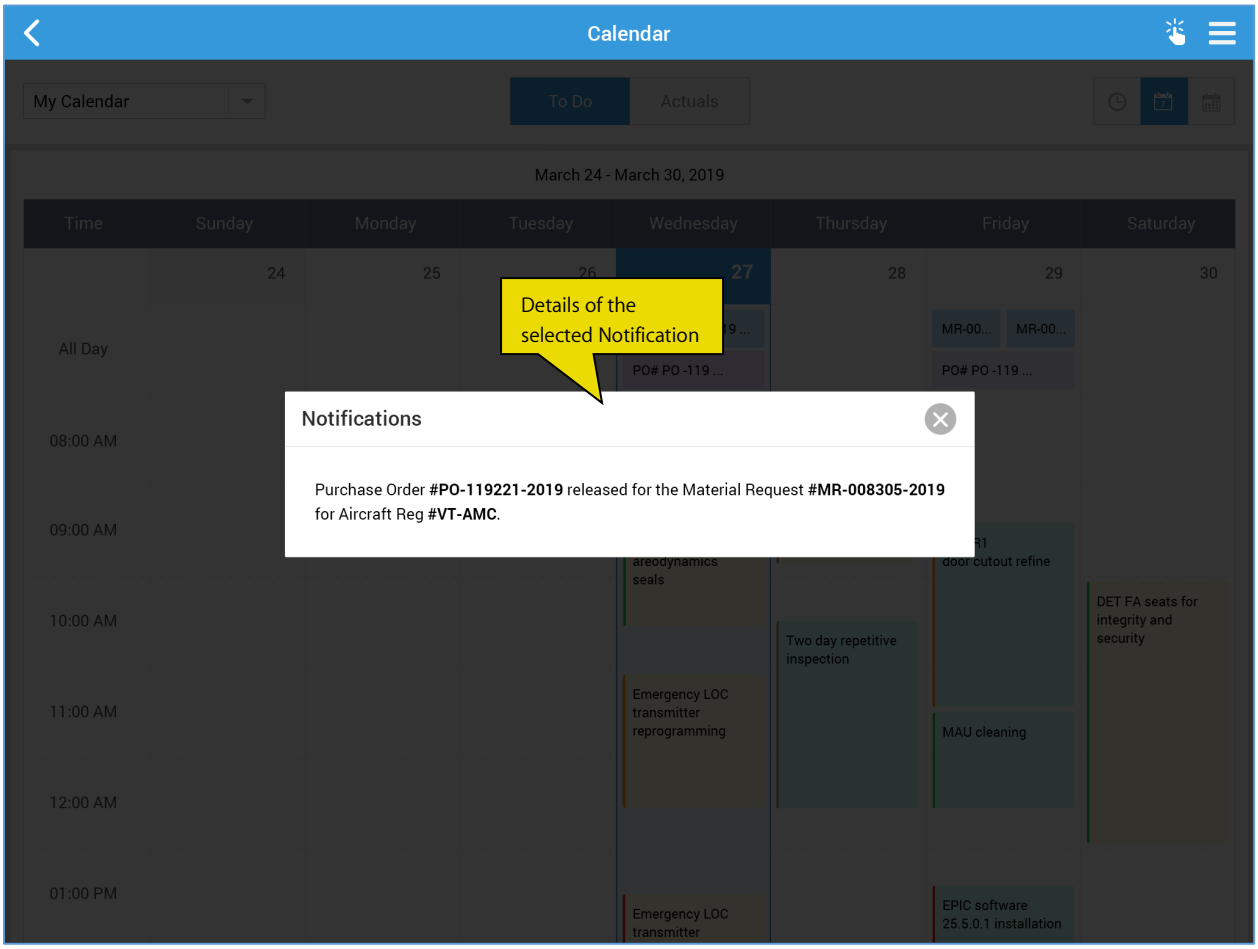


Exhibit 7: Identifies the **Notification Information** popup



Cognitive support for Discrepancy Corrective Action from MechanicAnywhere

Reference: APSE-373

Background

In Aviation Maintenance scenarios, the same discrepancy can be reported multiple times. In this case, the corrective action reported for the previous discrepancy can be reused for the newly reported discrepancy also. Hence, it will be highly useful if these frequently-used corrective actions could be displayed as suggestions when the user reports a new discrepancy.

Change Details

- New process parameter 'Cognitive support for Discrepancy Corrective Action in MechanicAnywhere?' has been introduced under the entity type Mobility and the entity MechanicAnywhere in the **Define Process Entities** activity of **Common Master** to suggest a list of Corrective Actions at the time of creation / reporting to the users.

Process Parameter Value	Impact
0 for 'Required within ATA	System will analyze the Corrective Action within the user entered ATA and the suggestion will be displayed based on the Corrective Action text within the ATA #.
1 for 'Required across ATA	System will analyze the Corrective Action across the user entered ATA and the suggestion will be displayed based on the Corrective Action text across the ATA ignoring the user entered ATA #.

The users can benefit from the cognitive discrepancy reporting feature in the following screens

- **Create Discrepancy**
- **Record Discrepancy Writeup**
- **New Corrective Action**
- **Edit Discrepancy**

Exhibit 1: Corrective Action suggestion by using **Discrepancy Description**

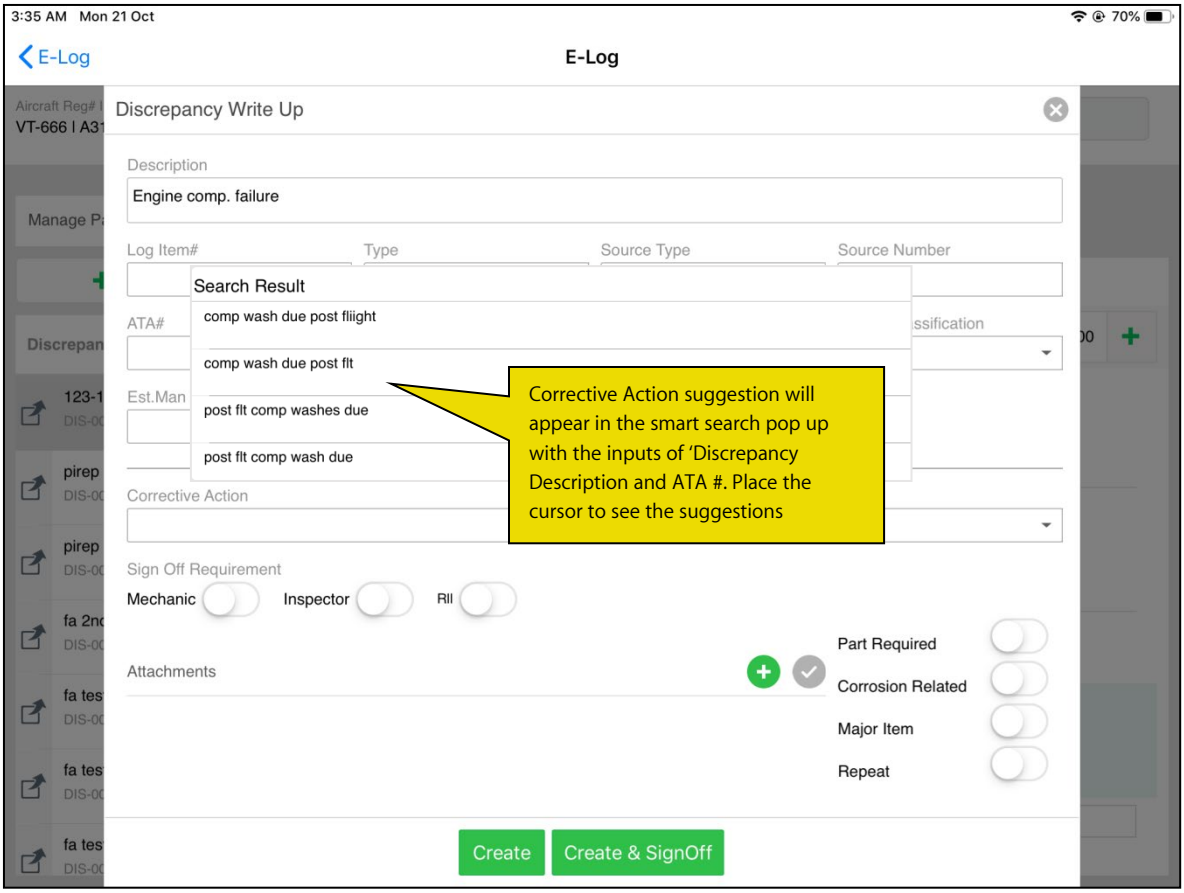
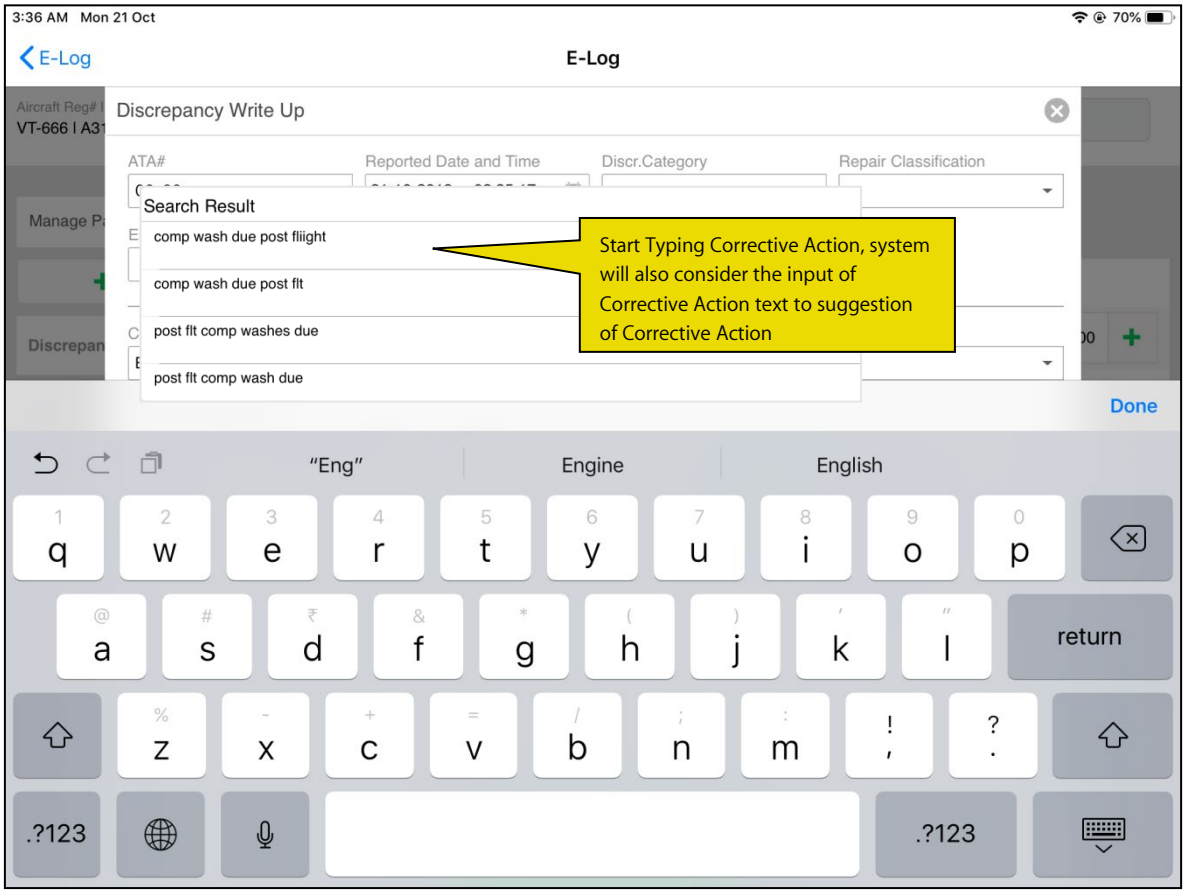


Exhibit 2: Corrective Action suggestion with using **Discrepancy Description** and **Corrective Action**



Ability to view Exe. Doc. in a List page in MechanicAnywhere

Reference: APRP-169

Background

In the **MechanicAnywhere** mobile application, the List pages are available for the tasks, discrepancies, material requests and component replacements. These List pages enable the mechanics to inquire and know about the work status of tasks, discrepancies, component replacement transactions and the pending material requests created / generated against them. A similar List page is required for aircraft packages / shop work orders to help the mechanics to inquire on the work progress / status of the packages / work orders and then initiate their closure.

Change Details

In order to provide a high-level of execution on aircraft packages/ shop work orders, the following changes have been built in the mobile application:

- New left pane activity – **Execution Document** added to the **Hamburger** menu. The users can now tap on **Execution Document** to open the **List** page to view the entire list of execution documents (both packages and work orders).
- The **List** page will comprise of three sections to enable the users to access and undertake processing of execution documents :
    - Search: This section offers both **Global** and **Advanced search** facilities to find the execution documents that they wish to work on/review in the current session
    - List: This section displays the packages / work orders retrieved by the searches based on the user-specified criteria. It shows the high-level information on the aircraft packages/ shop work order along with **Work Completion** icon, **Hold Status** icon and **Estimation** icon.
- Two Search Results filters - **Status** and **Exception** have been provided to further filter the search results for the convenience of the users.
    - On tap of the **Status** filter, a breakup of the execution documents on the basis of the following statuses – Planned, In-Progress and Completed appears. On tap of the required status tile, all the execution documents in the selected status are retrieved in the List section.
    - On tap of the **Exception** filter, a breakup of the execution documents on the basis of the following – **My Clock Running**, **All Clock Running**, **Work On Hold** and **Estimation Required** appears. On tap of the required status tile, all the execution documents in the selected status are retrieved in the **List** section.
- **Global search** criteria will accept values for the following attributes from the users and retrieve the execution documents
    - Exec. Document #
    - Exec. Document Description
    - Maintenance Object # (A/C Reg #, Part #, Serial # or Component #)
- The users **can** tap on Go/ on enter in the keyboard after entering the required search criteria in order to retrieve the search results.
- A comprehensive **Advanced search** criteria to retrieve execution documents precise will include the following inputs from the users based on which of the will be retrieved:
    - Location details including Work Center # and Station

- Reference Details including:
  - Part #
  - Serial #
  - Component #
  - Facility Object #
  - A/C Reg.#
  - A/C Model #
  - Flight #
  - Nose #
- Dates including Planned Start Date and Planned End Date
- Statuses including Hold Status and Estimation Status
- Commercials including Customer Order # and Customer Name
- Document Details including:
  - Exec. Type
  - Exec. Doc. #
  - Ref. Doc. Type
  - Job Type
- Additional Search including:
  - Log Ref #
  - Journey Log #
  - MSN #
  - Facility Type
  - Event #
  - Contract #
  - Maint. Operator #
  - Rem. From A/C Reg #
  - Exchange Order #

The following process parameters are added in order to depict the **Work Completion Status** and display option for flight details:

Process Parameter: Basis of Work Completion icon depiction for Exec. Doc. List?	
Value	**Impact on retrieval of closed discrepancies**
"0" for 'Status only'	The system will show the Work Completion icon by considering only the statuses of the tasks and discrepancies.
"1" for 'Status & Est. Man Hrs.'	The system will show the Work Completion icon by considering both statuses of the tasks and discrepancies and the estimated man hours.
Process Parameter: Display option for aircraft details in the Exec. Doc. List Page?	
Value	**Impact on retrieval of closed discrepancies**
"0" for 'Flight #'	The system will show Flight # in aircraft details section of Exec. Doc. List page
"1" for 'Nose #'	The system will show Nose # in aircraft details section of Exec. Doc. List page
"2" for 'MSN #'	The system will show MSN # in aircraft details section of Exec. Doc. List page

Exhibit 1: Identifies the changes in the **Hamburger** menu

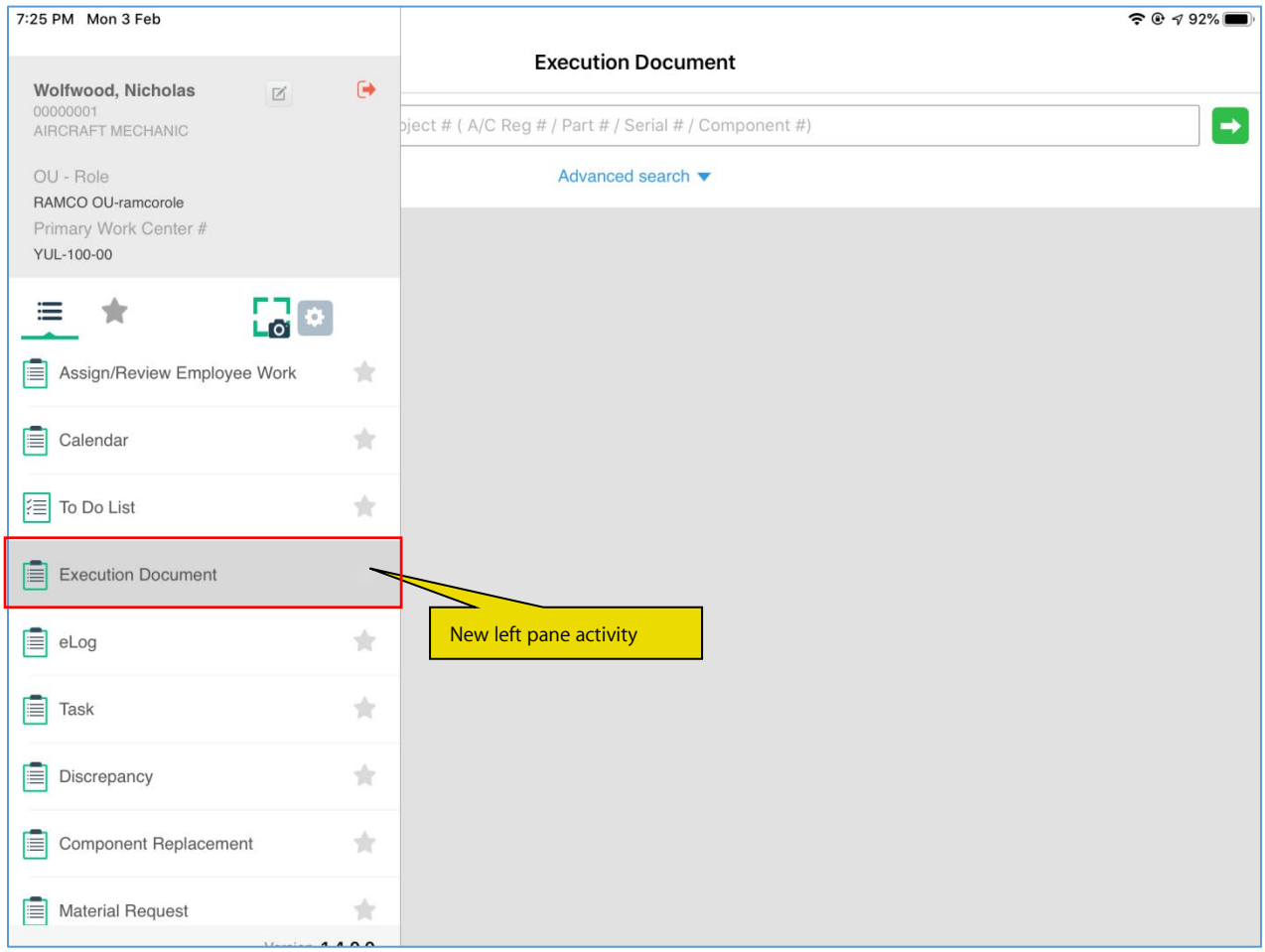


Exhibit 2: New **Execution Document** List page

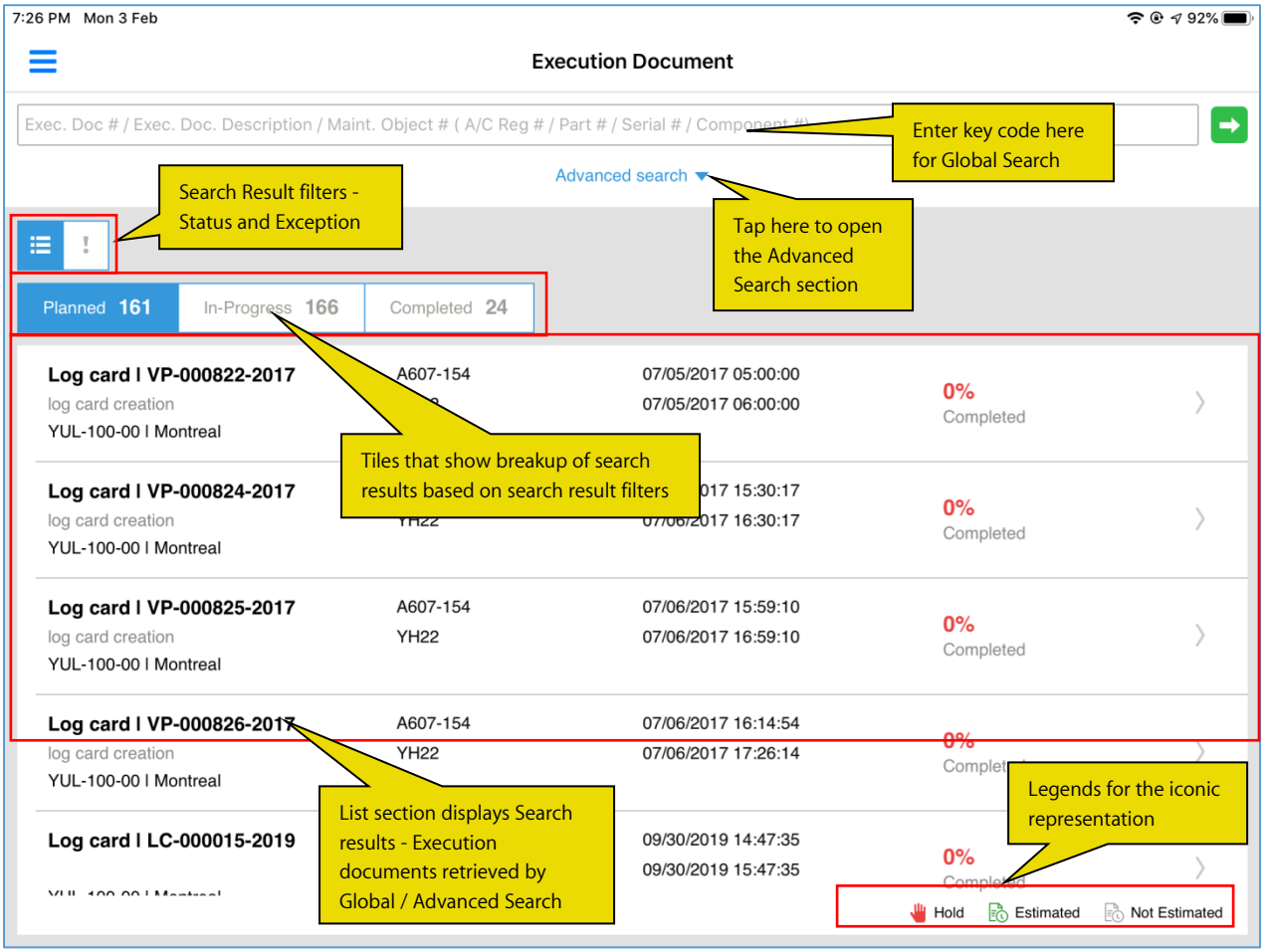


Exhibit 3: Advanced Search in the Execution Document page

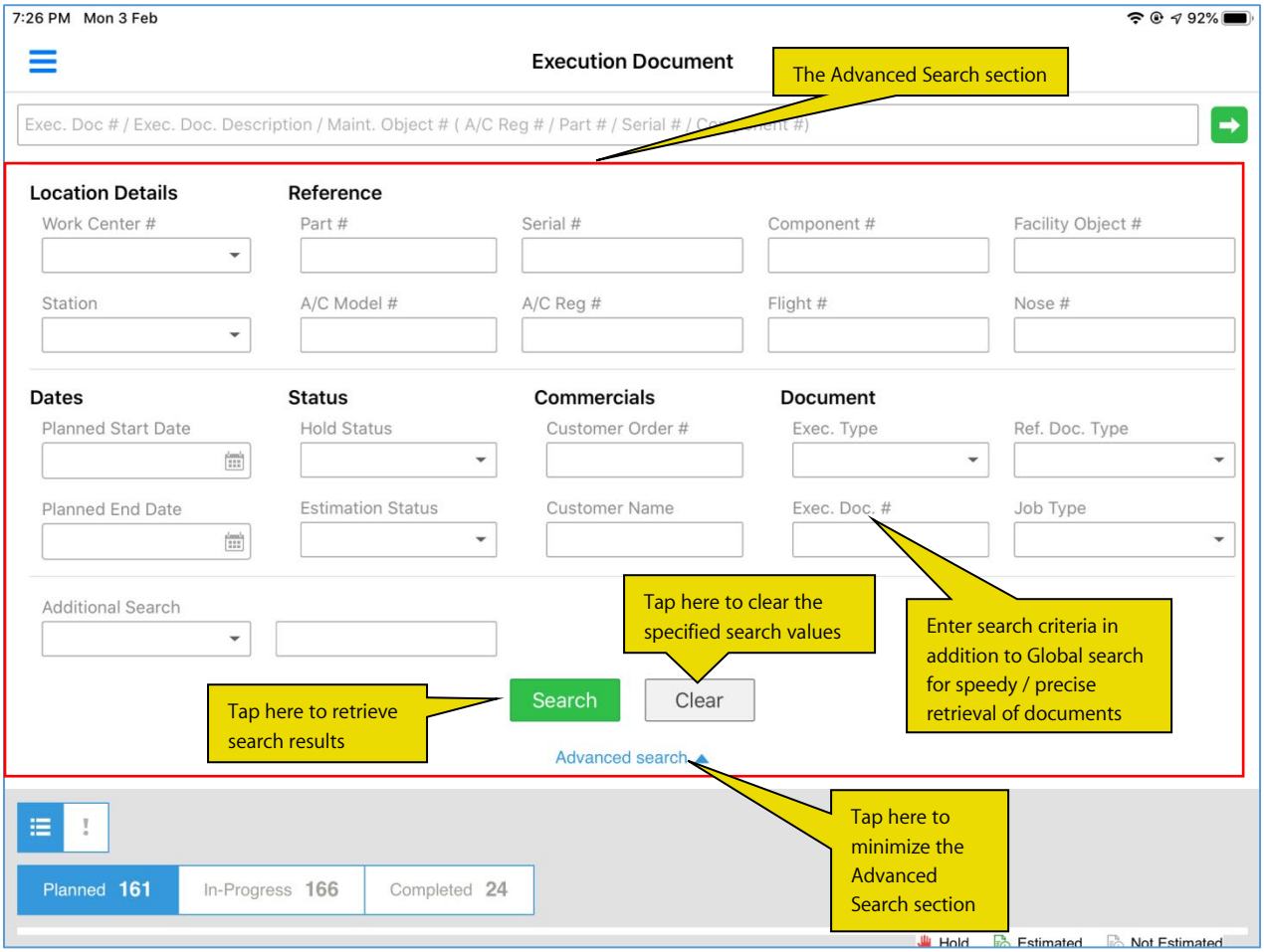


Exhibit 4: The **Package List** page with search results based on the **Status** filter

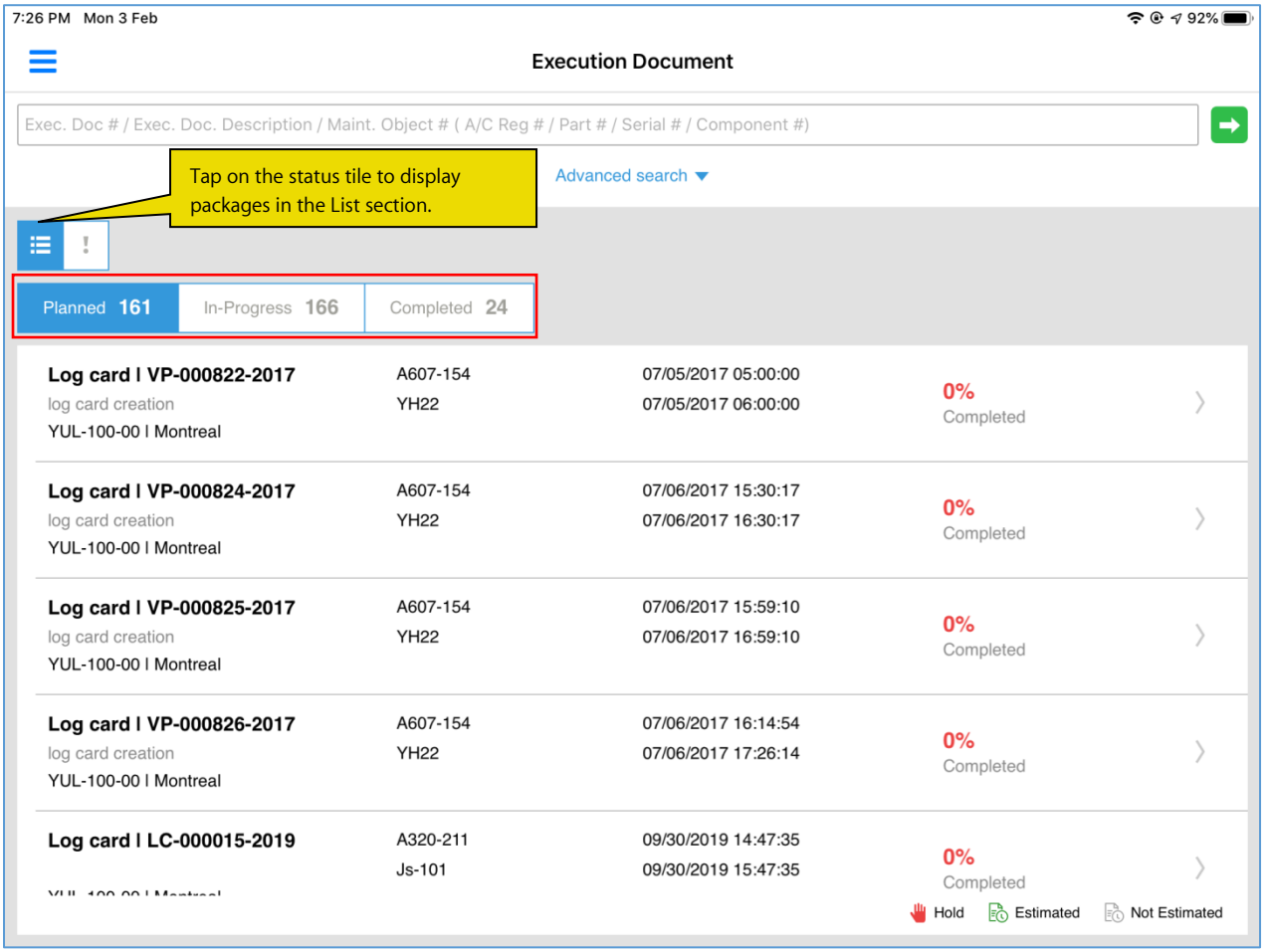
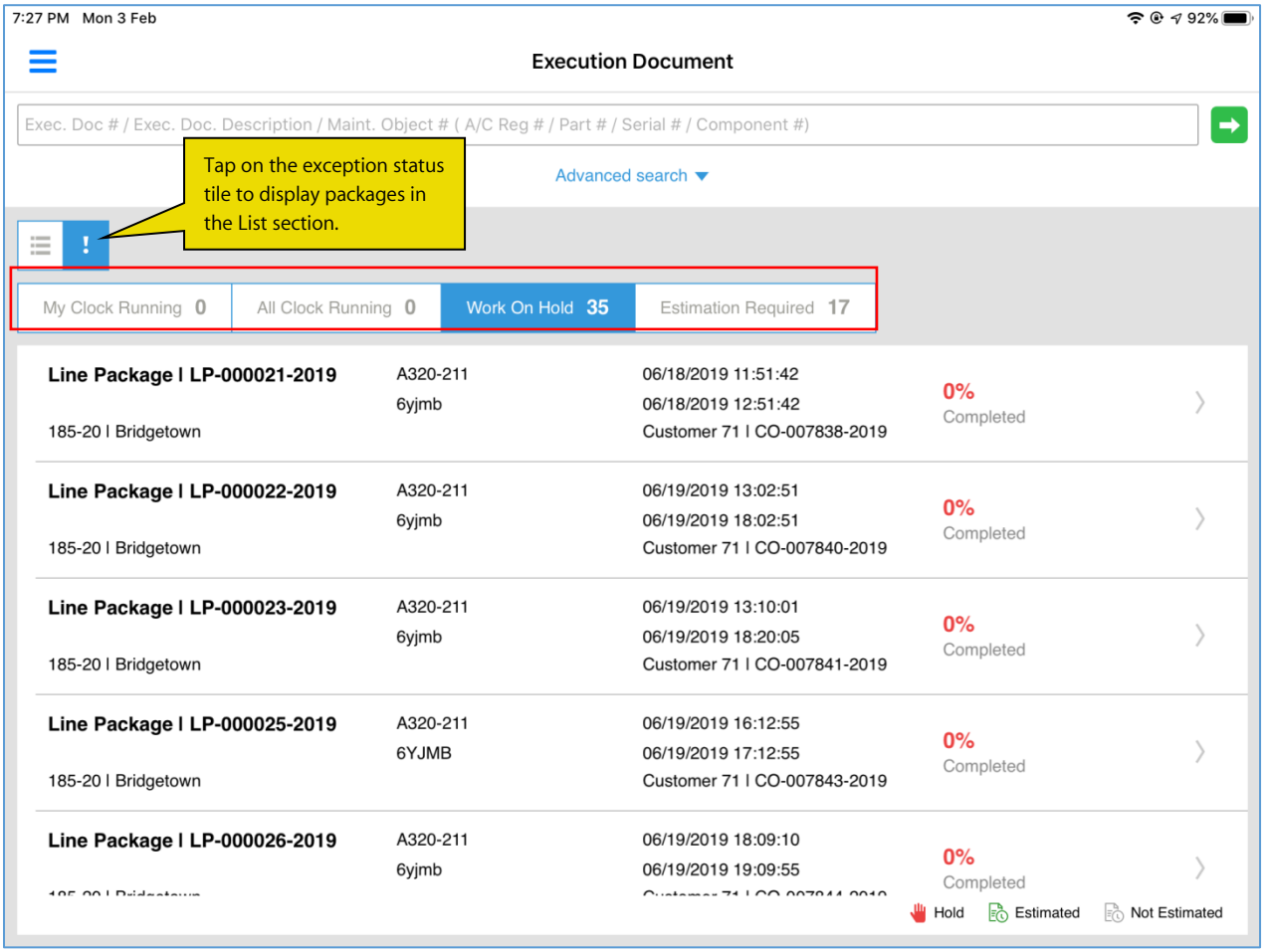


Exhibit 5: The **Package List** page with search results based on the **Exception** filter



Ability to show Work Status and Cost Details in Exec. Doc. Card

Reference: APRP-491

Background

In the **MechanicAnywhere** mobile application, the mechanics use the **Task** and **Discrepancy** Card pages to view, monitor execution, track status and process tasks and discrepancies. Similar **Card** page for work packages and shop work orders is required to enable the mechanics/supervisors to view data, track status and monitor execution and facilitate closure at document level. A provision to access / know the comprehensive cost details is also required for the supervisors for better management of expenditure on package / work orders.

Change Details

New card page for execution documents (both packages & shop work orders) has been introduced in the **MechanicAnywhere** mobile application. This **Execution Document Card** screen will be launched on selection of a AME Package/ Shop Work Order from Execution Document List screen. The **Execution Document Card** page will offer the following new features:

- The header will display execution document details specific to work packages or shop work orders as illustrated in the table below:

Execution Document = Aircraft Package	**Execution Document = Shop Work Order**		
Job Type = NA	**Job Type = Other than Make or Facility**	**Job Type = Make**	**Job Type = Facility**
○ A/C Reg # ○ A/C Model # ○ Work Center # ○ Station ○ Customer Name ○ Package Priority ○ FH of aircraft ○ FC of ○ Status ○ Count of pending tasks upon total count of tasks in the package Count of pending discrepancies upon total count of	○ Part # ○ Serial # / Lot # ○ Component # ○ Qty. ○ Work Center # ○ Work Station ○ Customer Name ○ Event # ○ Priority ○ Main Core Status ○ Work Order Status ○ Count of pending tasks upon total count of tasks in the work order ○ Count of pending discrepancies upon total count	○ Part # ○ Mfr. Serial # / Mfr. Lot # ○ Component # ○ Qty. ○ Work Center # ○ Station ○ Customer Name ○ Event # ○ Priority ○ Main Core Status ○ Status button ○ Count of pending tasks upon total count of tasks in the work order ○ Count of pending discrepancies upon total count	○ Facility Object # ○ Facility # ○ Facility Type ○ Work Center # ○ Work Station ○ Customer Name ○ Event # ○ Priority ○ Main Core Status ○ Count of pending tasks upon total count of tasks in the work order ○ Count of pending discrepancies

discrepancies in the package	of discrepancies in the work order	of discrepancies in the work order	upon total count of discrepancies in the work order

- On tap of the **Task** button in the header of the **Execution Document Card** page for AME Packages, the **eLog** page screen appears with the **Maint. Events & Task** tab defaulted with all the tasks from the package details.
- On tap of the **Discrepancy** button in the header of the **Execution Document Card** page for AME Packages, the **eLog** page screen appears with the **Maint./Pilot Discrepancy** tab defaulted with all the discrepancies from the package details.
- On tap of the  icon in the **Status** button to open the **Status Change** popup and update the status of the package / work order. However, the Status button will be available only for packages in the 'Completed' status.
- The **Execution Document Card** page will comprise of two tabs: **Work Status** and **Cost Details.**

Work Status tab

The **Work Status** tab will display the following details represented by graphs. The **Work Status** tab being the default tab will display the following details on launch of the Execution Document Card page

- Displays **Overall Work Completion %** of the AME Package / Shop Work Order in a pie chart which is based on an existing set option 'Basis of Work Completion icon depiction for Exec. Doc. List?'.

Pie Chart Depiction - Green Color	Pie Chart Depiction - Orange Color
Work Completed in percentage	Pending work in percentage

- **On Time / Delayed** representation of the AME Package / Shop Work Order that shows if the execution of the package or work order is as per schedule towards completion and if there's a delay in start or end based on pre-defined calculations.
- **Day(s) to Complete** based on the Planned End Date and Current date.
- Progress Bars representing **Elapsed Time**, **Work Completion** and **Worked Hours**. These bars also display the remaining hours / tasks to be completed at the end.
  - **Elapsed Time** : This progress bar shows the total time available for the respective package/ work order for completing the work based on Planned dates. The bar is incremented gradually to show the completed time and how much is remaining for work completion. This bar is represented in hours.
  - **Work Completion** : This progress bar shows the total task/discrepancy available in the respective package/ work order. The bar is incremented as and when tasks/discrepancies are completed and the remaining bar shows the task/discrepancy pending for completion. This bar is represented in counts.
  - **Worked Hours** : This progress bar shows the total estimated hours for all the tasks/discrepancies in the package/work order. The bar is incremented as when time is booked or actual man hours is recorded and the remaining bar shows the hours pending for time booking. This bar is represented in hours.
- Cards section consists of color-coded cards showing specific information/warning for the package / work

order as illustrated in the table below. The Green colour shows that the package/ work order is good for closure and orange colour indicates a warning for which appropriate action has to be taken before closure. The different cards available are : **Exec. Doc Hold?**, **Estimated?**, **Quoted?**, **CO Hold?** and **COM Issued?**. The card will also show the comprehensive status of the package / work order.

Cost Details tab

This tab reveals comprehensive information on the overall costs incurred on the execution / completion of package/ work order.

In the header, the tab will reveal the sum total of all overhead costs for the package / work order as illustrated below

- Total Estimates : Total estimated cost of Parts, Labour, Resource, Ext. Repair, Ext. Services and Other Cost.
- Total Actuals : Total actual cost of all Parts, Labour, Resource, Ext. Repair, Ext. Services and Other Cost.
- Total Projection : Total projected cost of all Parts, Labour, Resource, Ext. Repair, Ext. Services and Other Cost.

This tab comprises the cost details of the following overheads for the package:

- Parts
- Labour
- Resources
- Others

Each of the sections will display the following as applicable:

- Estimates : Total estimated cost of the Part/Labour/Resources/Others
- Actuals : Total actual cost of the Part/Labour/Resources/Others
- Projection : Total projected cost shows the total cost at the end of execution of all the jobs in the package/ work order based on pre-defined calculations
- Variance % : Shows the variance based on the estimated cost and total projection for Part/Labour/Resources/Others
- % Consumed : This shows the % of consumption of Part/Labour/Resources/Others based on actual and estimated cost.

Note: All amounts in the tab are shown in the Base currency of the organization.

- Color-coded depiction for variance and consumption:-

Depiction	Depiction - Green Color	Depiction – Red Color
Variance %	If Variance % is a 'Positive (+)' value or is '0'	If Variance % goes to a 'Negative (-)' value
% Consumed	If Consumed % is lesser than 100 %	If Consumed % is greater than 100 %

Exhibit 1: Identifies new **Execution Document List** page in **MechanicAnywhere**

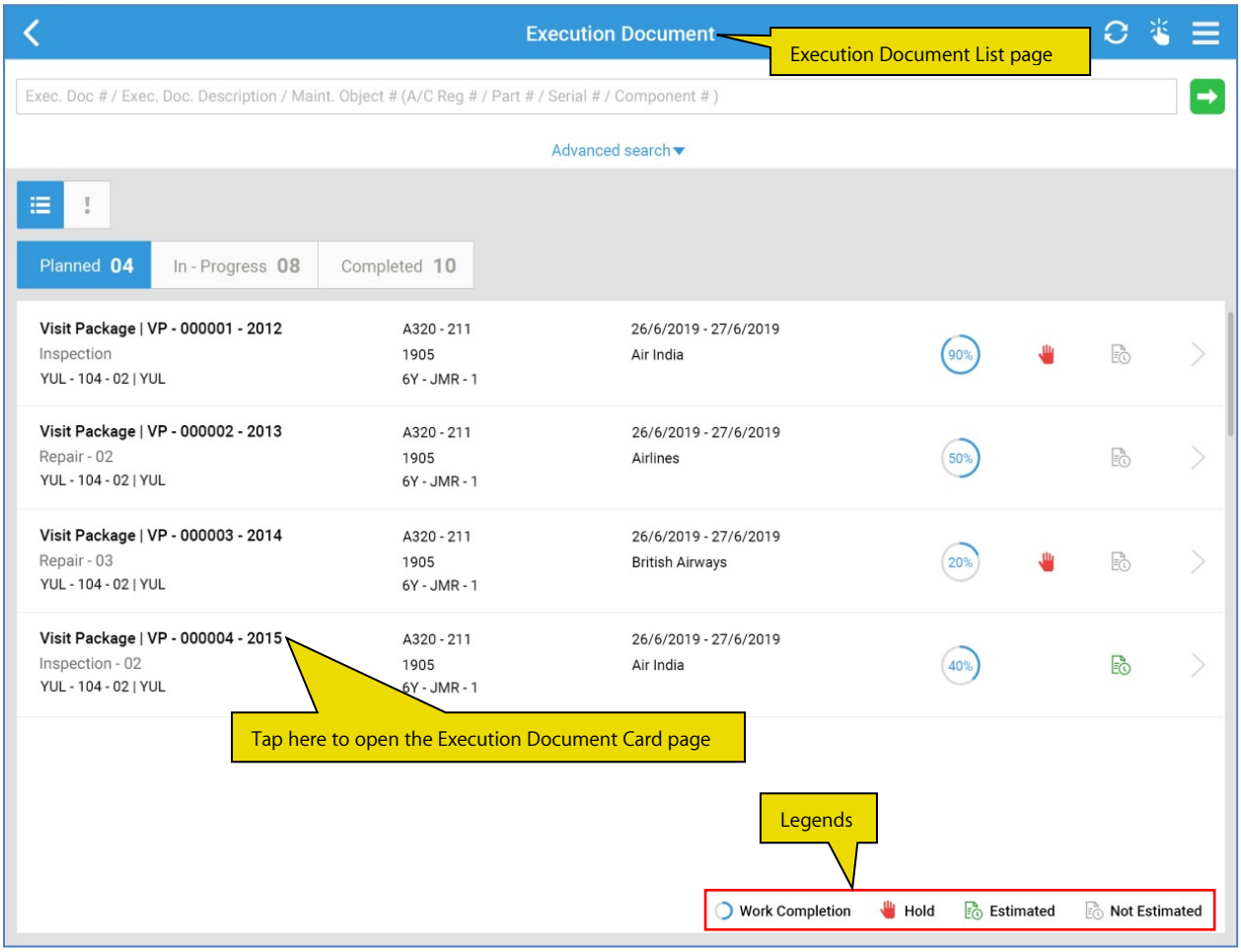


Exhibit 2: Identifies the **Work Status** tab in the **Execution Document Card** page

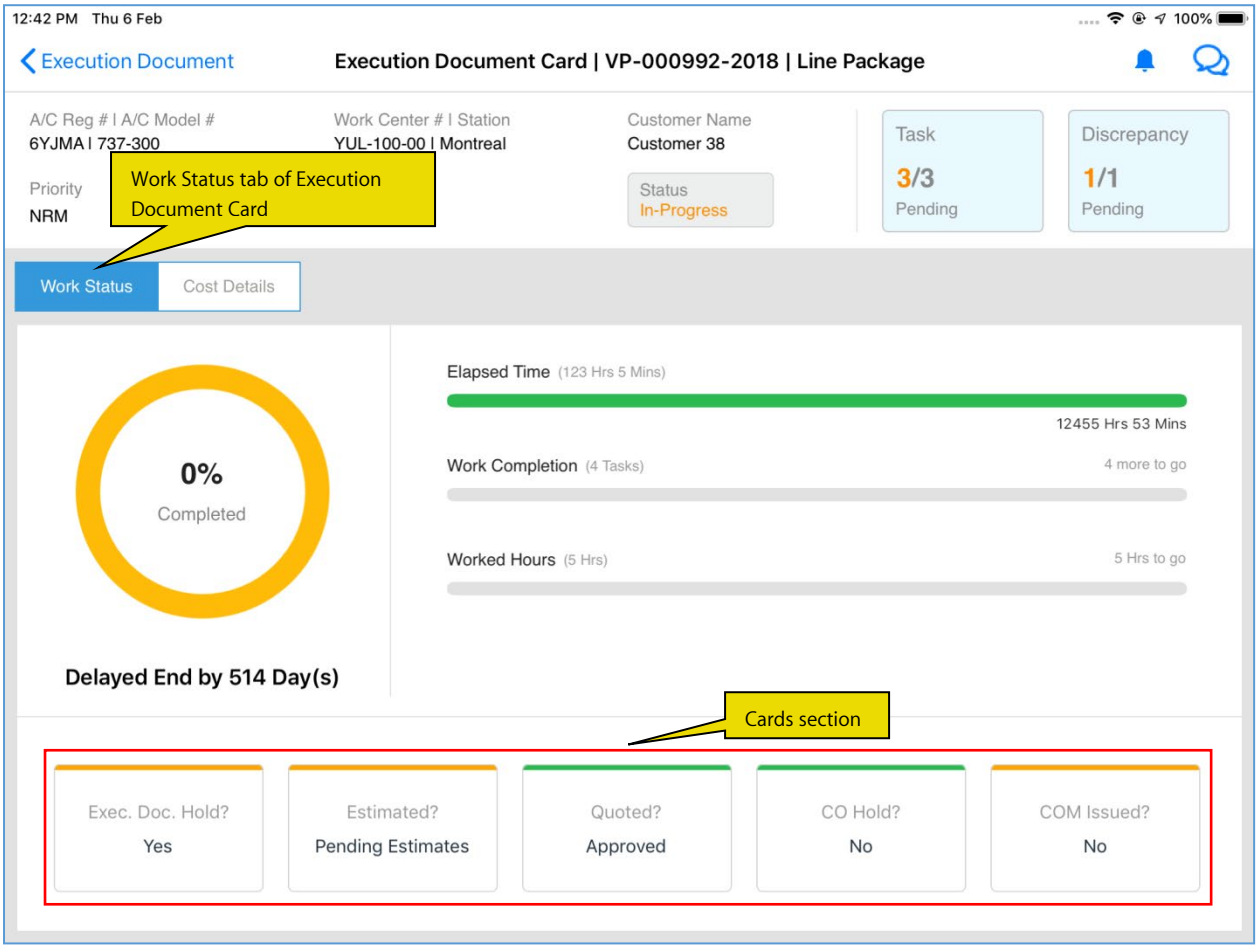
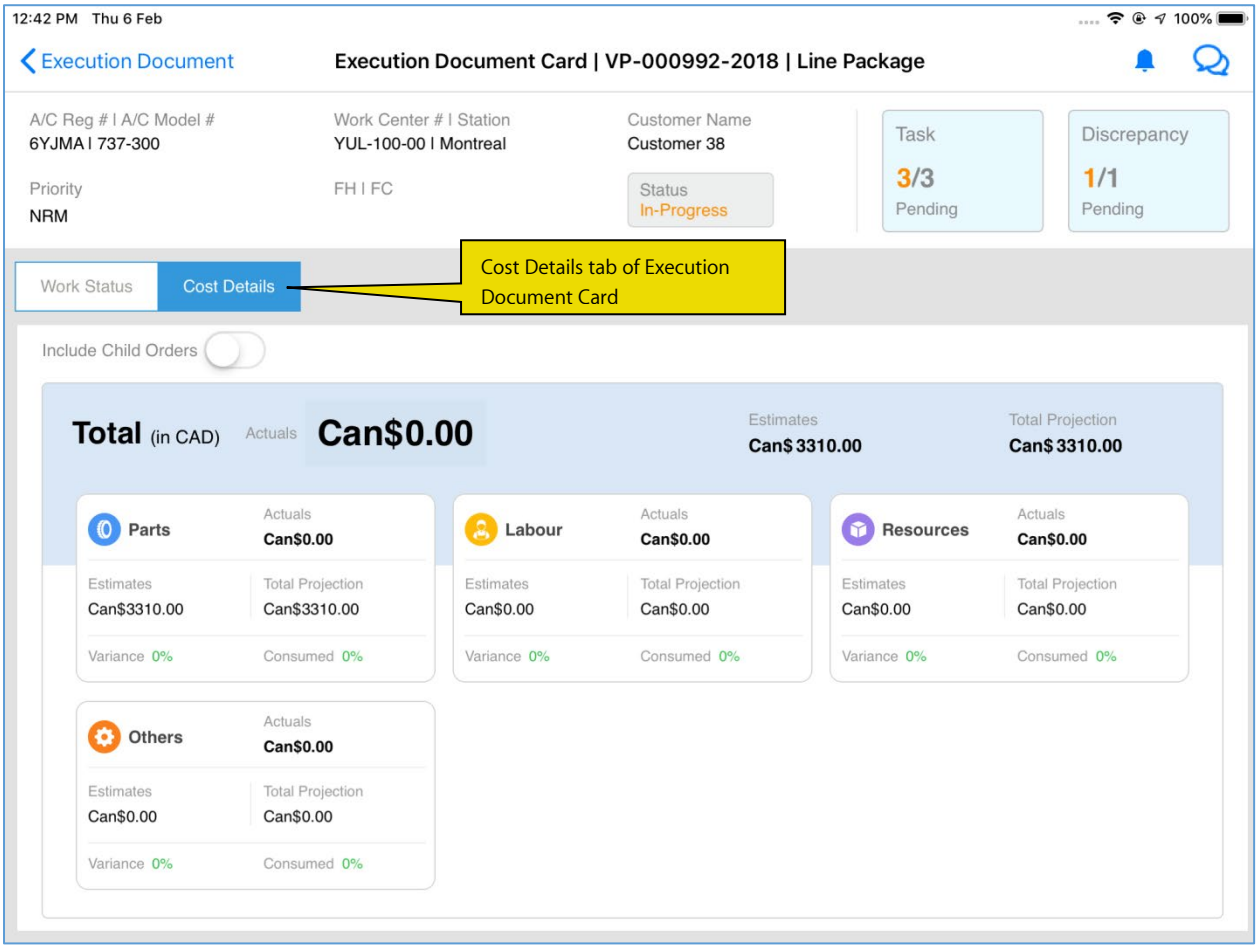


Exhibit 3: Identifies the **Cost Details** tab in the **Execution Document Card** page



Ability record Resource Consumption in MechanicAnywhere

Reference: APSE-74

Background

In the Aviation Maintenance scenarios, the resource consumed against a task/discrepancy is tracked for invoicing and audit purposes. Currently, the resource reporting can be done only from the **Report Resource Estimates/Actuals** screen in the **Ramco Aviation desktop** application. It would be advantageous for the mechanics, if **Report Resource Actuals** is brought about in the **MechanicAnywhere** mobile application as well.

Change Details

- A new **Resource Consumption** screen has been introduced to report resource actuals against a task/discrepancy. The following changes have been incorporated in eLog, Task Card Details, Discrepancy Card screens.
    - The existing **Resource** button in the **Maint. Events & Task and Maint. Pilot Discrepancy** tabs of **eLog** have been converted to navigational button. On tap of the **Resource** button, the newly added **Resource Consumption** screen will appear.
    - New icon **Resource Consumption** has been added in the **Task Card Details** and **Discrepancy Card** screen. On tap of the **Resource Consumption** icon, the newly developed **Resource Consumption** screen will appear.

Exhibit 1: Identifies changes in the **eLog** screen

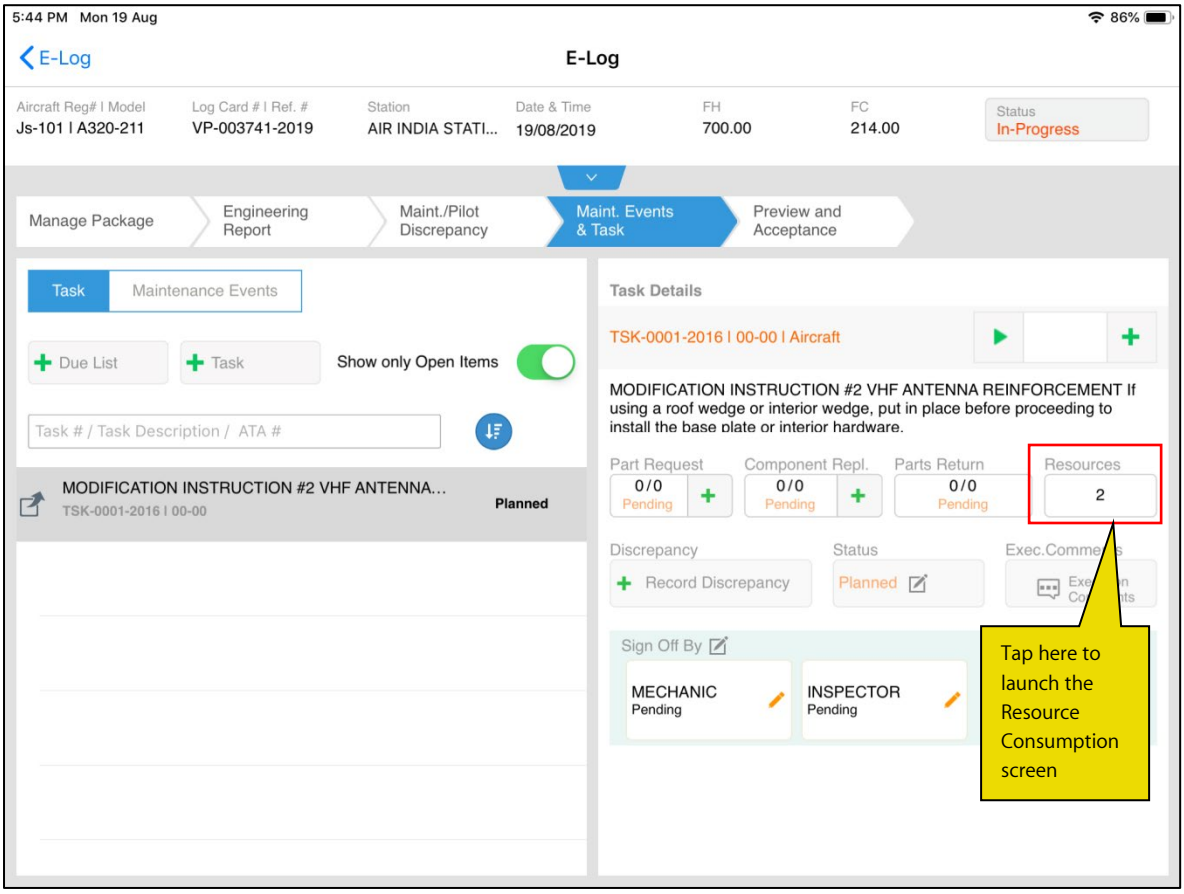


Exhibit 2: Identifies the changes in the **Resource Consumption** icon in **Task Card Details** screen

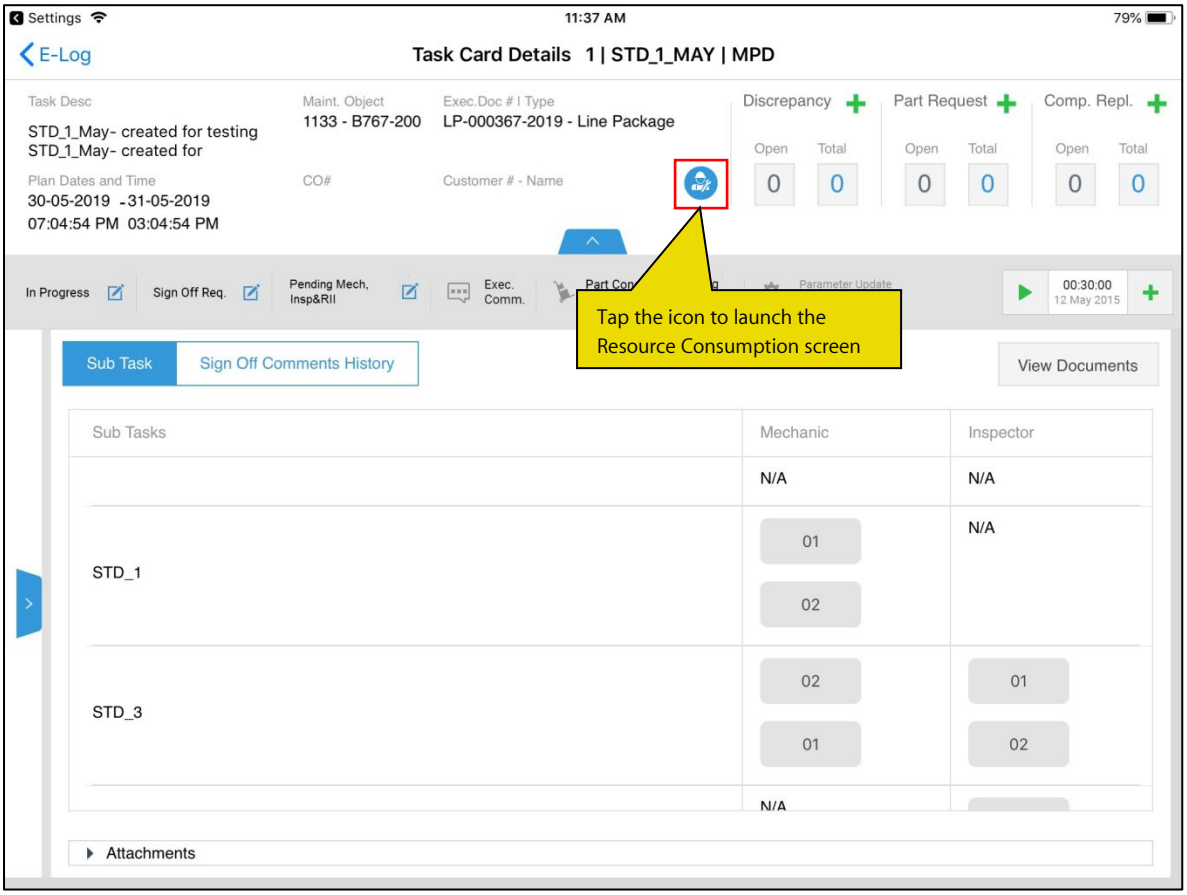


Exhibit 3: Identifies the changes in the **Resource Consumption** screen with defaulted Skill Type

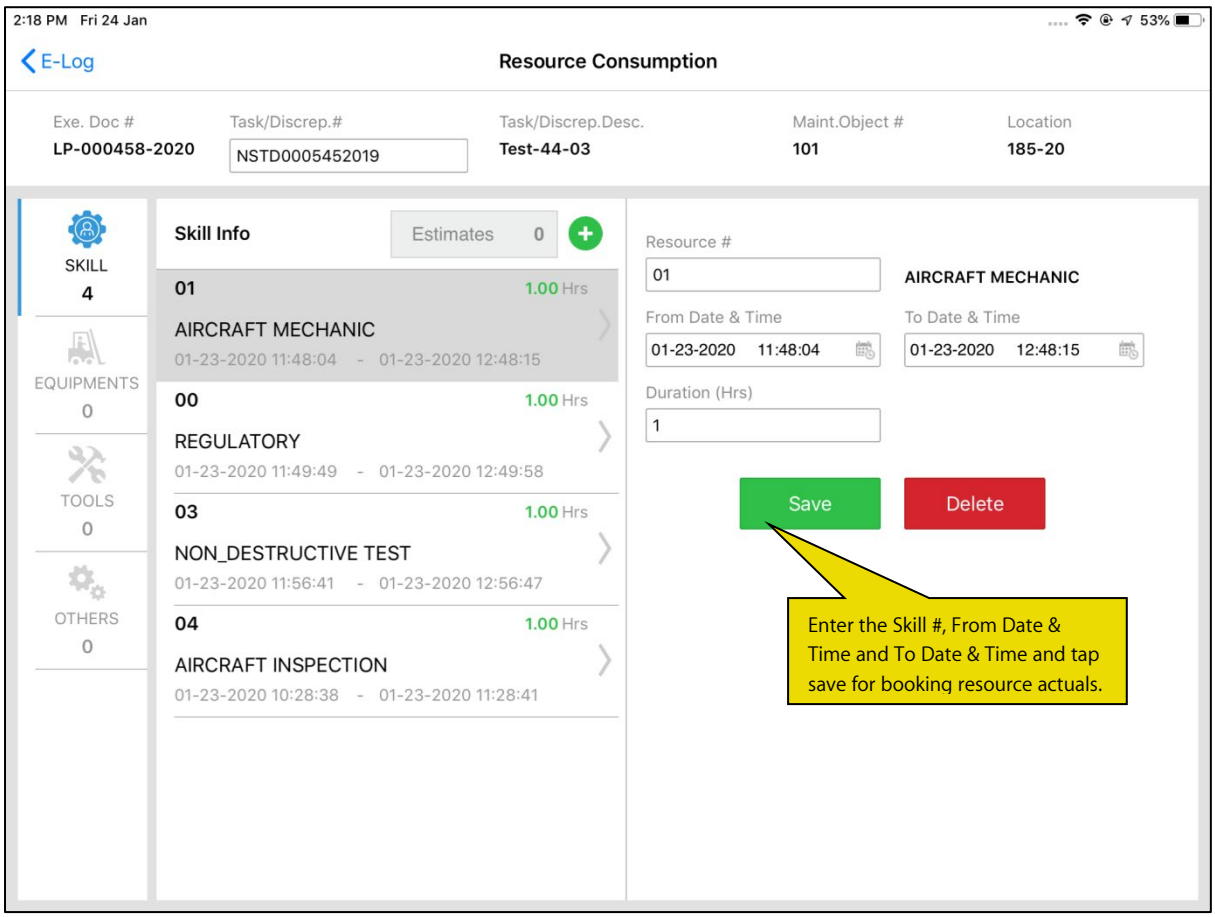


Exhibit 4: Identifies new **Estimates** popup

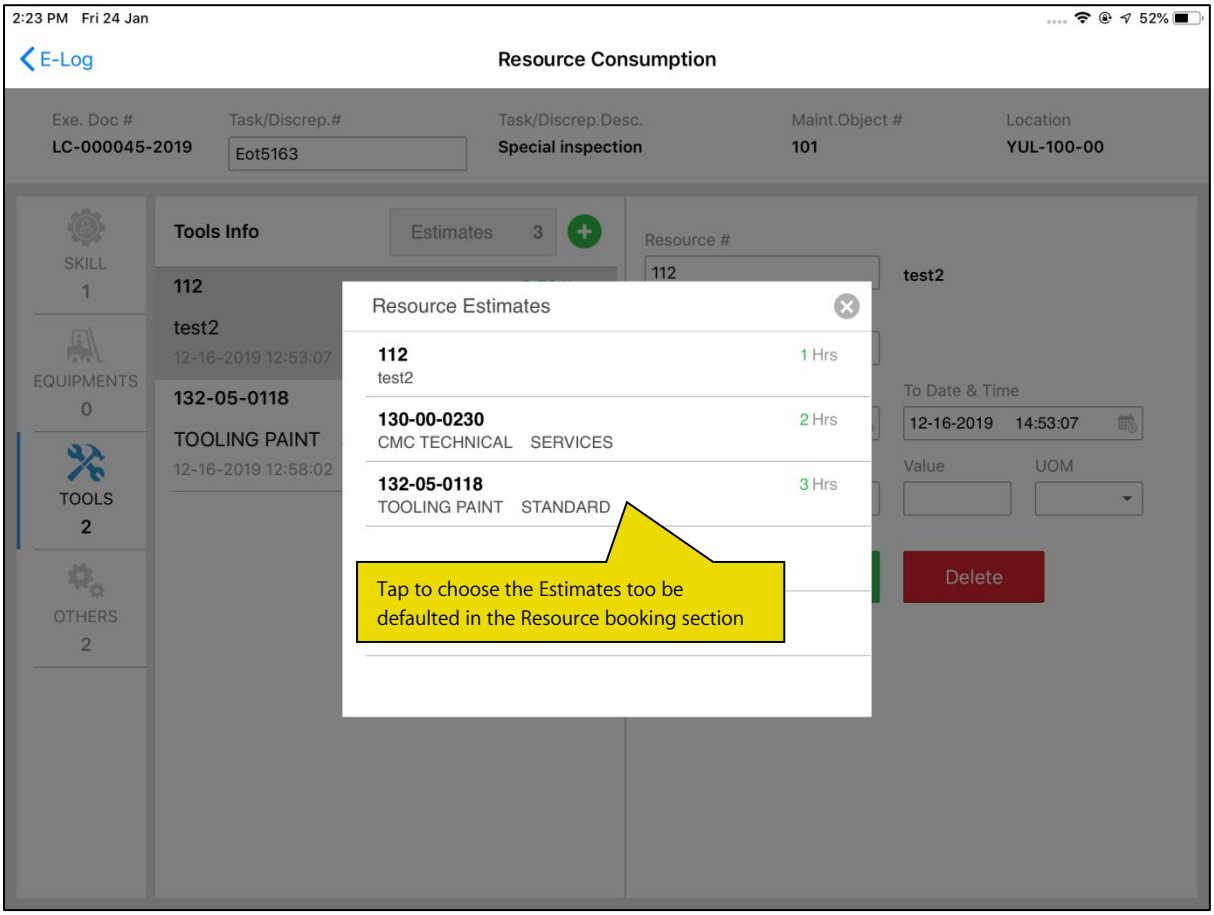


Exhibit 5: Delete Action through swipe

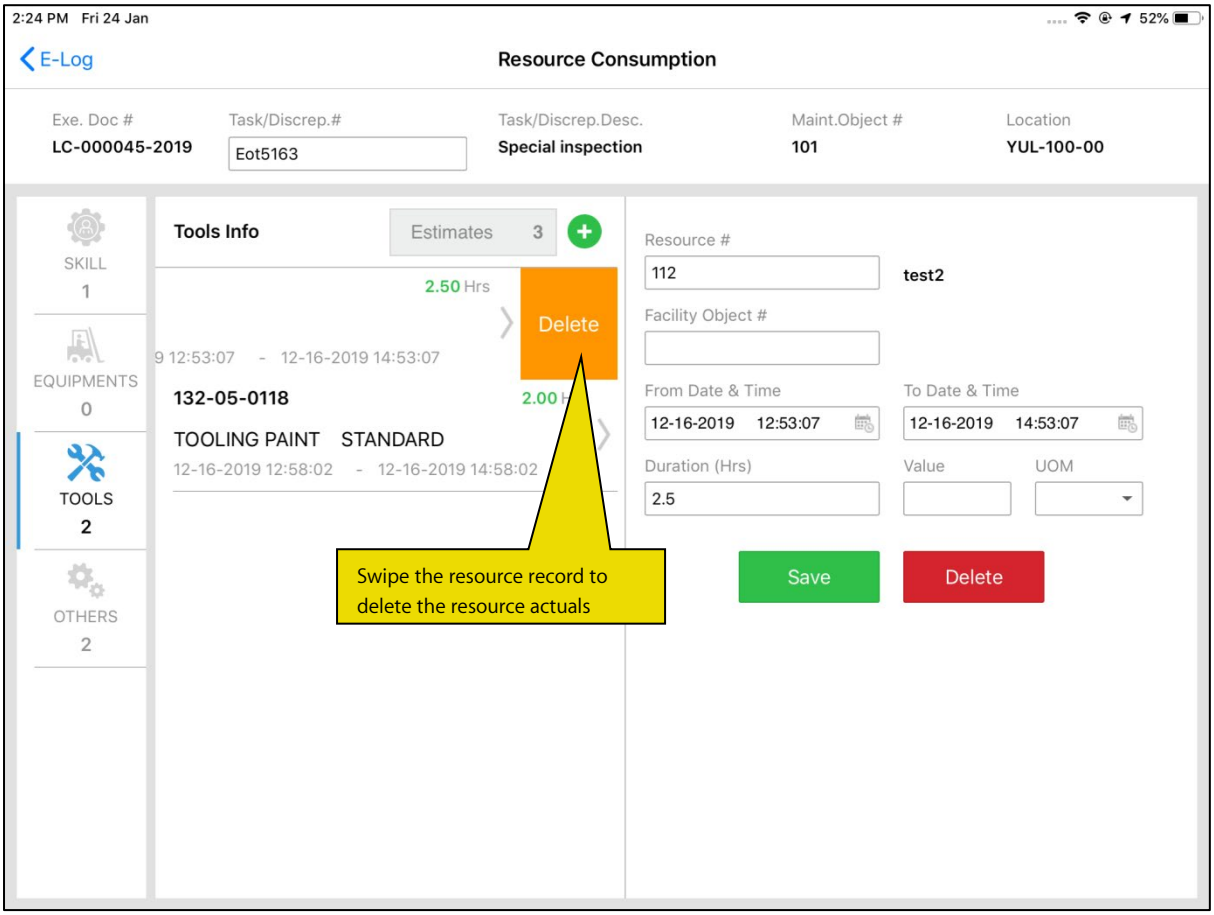
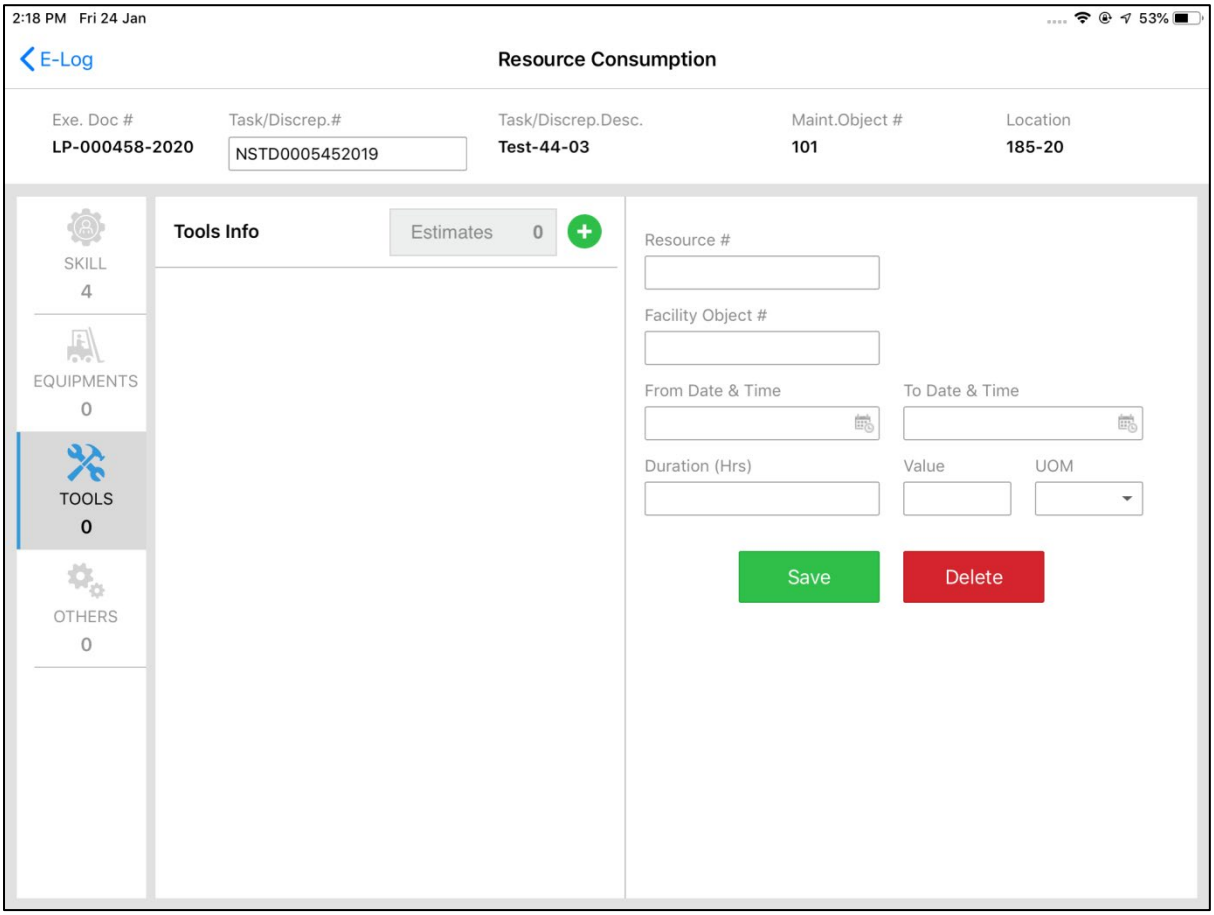


Exhibit 6: The **Resource Consumption** screen with **Resource Type Tools**



Ability to Mandate Sign Off Comments during Sign Off/Void/Reverse/Reject in MechanicAnywhere

Reference: APRP-182

Background

Currently, in Ramco Aviation, recording of sign-off comments during sign off, voiding, sign off reversal and sign off rejection for tasks is not mandatory. However, the mechanics / inspectors would want to know the grounds particularly for voiding, rejecting and reversing of sign-off against tasks. Hence, a provision to mandate the sign-off comments, which are akin to future reference, must be supported in **MechanicAnywhere**.

Change Details

To ensure that the mechanics provide sign-off comments during sign-off, reversal of sign-off, voiding of tasks and sub tasks, the following developments have been incorporated in **MechanicAnywhere**.

- New process parameter 'Mandate Sign off Comments during Void?' has been added under the Entity Type 'Package Type' and the Entity 'Log Card', 'User Defined Values' in the **Define Process Entities** activity of **Common Master** business component, to mandate the sign-off comments during voiding of a task.

Process Parameter: Mandate Sign Off Comments during Void?	
Parameter Value	**Impact on the entry of sign off comments in the Record Sign Off & Work Completion screen**
1 for Yes	The Sign off comments is mandatory for voiding of the task.
0 for No	The Sign off comments is not mandatory for voiding of the task.

- New process parameter 'Mandate Sign Off Comments during Reversal of Sign-Off? has been added under the Entity Type 'Package Type' and the Entity 'Log Card', 'User Defined Values' in the **Define Process Entities** activity of **Common Master** business component, to mandate the sign-off comments during reversal of sign-off of a task.

Process Parameter: Mandate Sign Off Comments during Reversal of Sign Off?	
Parameter Value	**Impact on the entry of sign off comments in the Record Sign Off & Work Completion and Task tab and Discrepancy tab multilines, Task Actions and Discrepancy Actions windows in the Work Reporting Hub screen**
1 for Yes	The Sign off comments is mandatory for reversal of sign off of the task.
0 for No	The Sign off comments is not mandatory for reversal of sign off of the task.

To ensure that the mechanics provide sign off comments during signoff, reversal of signoff, voiding and rejection of tasks in Shop Work Order, the following new developments have been incorporated in the system:

- New process parameter 'Mandate Sign Off Comments during Sign Off?' has been added under the Entity Type 'Shop Work Order Type' and the Entity 'User Defined Values' in the **Define Process Entities** activity of **Common Master** business component, to enforce entry of the sign-off comments during sign-off of a task.

Process Parameter: Mandate Sign Off Comments during Sign Off?	
Parameter Value	**Impact on the entry of sign off comments in the Record Shop Execution Details screen**
1 for Yes	The Sign off comments is mandatory for sign-off of tasks.
0 for No	The Sign off comments is not mandatory for sign-off of tasks.

- New process parameter 'Mandate Sign Off Comments during Void?' has been added under the Entity Type 'Shop Work Order Type' and the Entity 'User Defined Values' in the **Define Process Entities** activity of **Common Master** business component, to enforce entry of the sign-off comments during voiding of a task.

Process Parameter: Mandate Sign Off Comments during Void?	
Parameter Value	**Impact on the entry of sign off comments in the Record Shop Execution Details screen**
1 for Yes	The Sign off comments is mandatory for voiding tasks.
0 for No	The Sign off comments is not mandatory for voiding tasks.

- New process parameter 'Mandate Sign Off Comments during Reversal of Sign Off?' has been added under the Entity Type 'Shop Work Order Type' and the Entity 'User Defined Values' in the **Define Process Entities** activity of **Common Master** business component, to enforce entry of the sign-off comments during reversal of sign-off of a task.

Process Parameter: Mandate Sign Off Comments during Reversal of Sign Off?	
Parameter Value	**Impact on the entry of sign off comments in the Record Shop Execution Details screen**
1 for Yes	The Sign off comments is mandatory for reversal of sign off of tasks.
0 for No	The Sign off comments is not mandatory for reversal of sign off of tasks.

- New process parameter 'Mandate Sign Off Comments during Rejection of Sign Off?' has been added under the Entity Type 'Shop Work Order Type' and the Entity 'User Defined Values' in the **Define Process Entities** activity of **Common Master** business component, to enforce entry of the sign-off comments during rejection of tasks.

Process Parameter: Mandate Sign Off Comments during Rejection of Sign Off?	
Parameter Value	**Impact on the entry of sign off comments in the Record Shop Execution Details screen**
1 for Yes	The Sign off comments is mandatory for rejection of tasks.
0 for No	The Sign off comments is not mandatory for rejection of tasks.

Exhibit 1: Mandate **Sign Off Comments** during **Sign Off/Void**

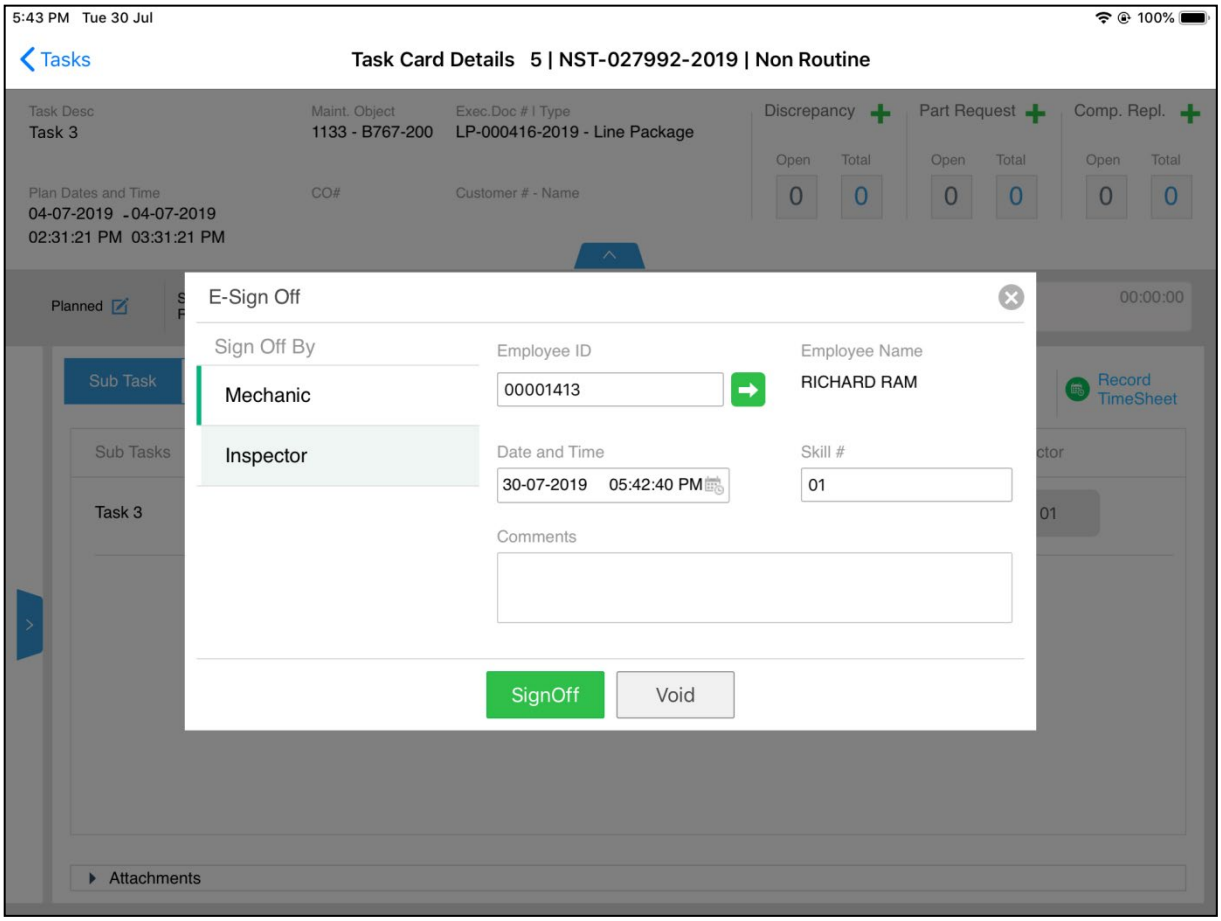
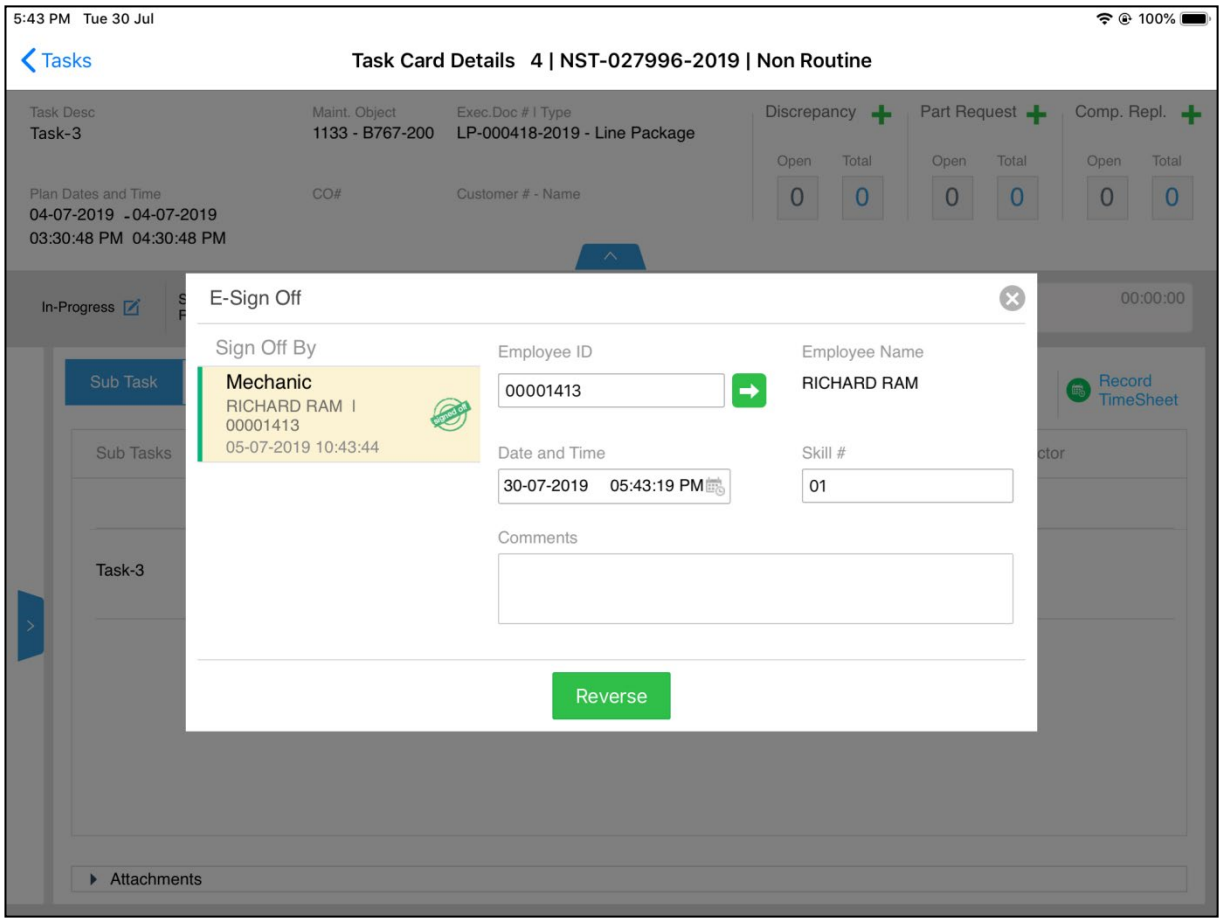


Exhibit 2: Mandate **Sign Off Comments** during **Sign Reverse**



Ability to demarcate any voided sign off when there is a pending sign off and also to show sign off status exclusively for Pending RII in Mechanic Anywhere

Reference: APRP-179

Background

In Ramco Aviation, a task / sub task can have one of the following Sign Off requirements – Mechanic, Inspector, RII, Mechanic and Inspector, Mechanic and RII, Inspector and RII or Mechanic, Inspector & RII. On sign off by each resource group, the sign off status changes to reflect the updated status of the task. For example, once the mechanic has signed off a task with requirement as Mechanic and Inspector, Sign Off Status becomes Pending Inspector. If both Mechanic and Inspector have signed off a task, the sign off status becomes Signed Off. However, in scenarios of Voided sign offs and Pending RII sign offs, the sign off status of tasks does not reflect the actual situation. Currently, if the Mechanic has voided sign off, the sign off status is displayed Pending Inspector for tasks requiring Mechanic and Inspector Sign Off. Similarly, if an Inspector has voided sign off, the sign off status will also be Pending Inspector. In such circumstances, the resource group that signs off the task subsequently will not be aware of the voiding of the task by the preceding resource group. Further, whenever RII sign off is pending for a task, the sign off status is displayed as Pending Inspector and thus no distinction is made between pending Inspector and RII Sign Off. Hence, it is required that the Sign Off Status attribute for a task must provide unambiguous information on the real time / changed sign off status of tasks for enhanced maintenance execution.

Change Details

To derive and display actual Sign-Off Status for tasks that indicates sign off or voiding by specific resource groups, the following changes have been carried out as part of the enhancement.

- The Sign Off status field in the **Task Card Details** screen of **MechanicAnywhere** will now display values that reflect the real time Sign Off status of tasks as illustrated in the following table.
- The Sign Off status field in the **Tasks** screen of **MechanicAnywhere** will now display values that reflect the real time Sign Off status of tasks as illustrated in the following table.
- The Sign Off status field in the **Discrepancy List** screen of **MechanicAnywhere** will now display values that reflect the real time Sign Off status of tasks as illustrated in the table next.

Scenario: 1 Pending RII

Type	Sign Off Requirement	Mechanic	Inspector	RII	Sign Off Status As Is	Sign Off Status To Be
Tasks Pending RII Sign Off	RII			Pending	Pending Inspector	Pending RII
	Mechanic and RII	Pending		Pending	Pending Mechanic & Inspector	Pending Mech&RII
	Mechanic and RII	Fully Signed Off		Pending	Pending Inspector	Pending RII
	Inspector and RII		Pending	Pending	Pending Inspector	Pending Insp&RII
	Inspector and RII		Fully Signed Off	Pending	Pending Inspector	Pending RII
	Mechanic, Inspector & RII	Pending	Pending	Pending	Pending Mechanic & Inspector	Pending Mech,Insp&RII
	Mechanic, Inspector & RII	Fully Signed Off	Pending	Pending	Pending Inspector	Pending Insp&RII
	Mechanic, Inspector & RII	Fully Signed Off	Fully Signed Off	Pending	Pending Inspector	Pending RII
	Mechanic, Inspector & RII	Fully Signed Off	Fully Signed Off	Pending	Signed Off	Signed Off

Scenario: 2 Fully Voided Sign Off display

Type	Sign Off Requirement	Mechanic	Inspector	RII	Sign Off Status As Is	Sign Off Status To Be
Some Fully Voided with Pending Sign Off	Mechanic and Inspector	Fully Voided	Pending		Pending Inspector	Pending Insp (Mech Voided)
	Mechanic and RII	Fully Voided		Pending	Pending Inspector	Pending RII (Mech Voided)
	Inspector and RII		Fully Voided	Pending	Pending Inspector	Pending RII (Insp Voided)
	Mechanic, Inspector & RII	Fully Voided	Pending	Pending	Pending Inspector	Pending Insp&RII (Mech Voided)
	Mechanic, Inspector & RII	Fully Voided	Fully Voided	Pending	Pending Inspector	Pending RII (Mech&Insp Voided)
All Fully Voided and NO Pending Sign Off	Mechanic and Inspector	Fully Voided	Fully Voided		Signed Off (Voided)	Signed Off (Voided)
Some Fully Voided and Some Signed Off	Mechanic and Inspector	Signed Off	Fully Voided		Signed Off	Signed Off
	Mechanic and RII	Signed Off		Signed Off	Signed Off	Signed Off
	Inspector and RII		Signed Off	Signed Off	Signed Off	Signed Off
	Mechanic, Inspector & RII	Signed Off	Signed Off	Signed Off	Signed Off	Signed Off
	Mechanic, Inspector & RII	Signed Off	Fully Voided	Signed Off	Signed Off	Signed Off
	Mechanic and Inspector	Signed Off	Signed Off		Signed Off	Signed Off
	Mechanic and RII	Fully Voided		Signed Off	Signed Off	Signed Off
	Inspector and RII		Fully Voided	Signed Off	Signed Off	Signed Off
	Mechanic, Inspector & RII	Fully Voided	Fully Voided	Signed Off	Signed Off	Signed Off

Scenario: 3 Partially Voided Sign Off display

Type	Sign Off Requirement	Mechanic	Inspector	RII	Sign Off Status As Is	Sign Off Status To Be
Some Partially Voided and Some Pending Sign Off	Mechanic and Inspector	Partially Voided	Pending		Pending Mechanic & Inspector	Pending Mechanic & Inspector
	Mechanic and RII	Partially Voided		Pending	Pending Mechanic & Inspector	Pending Mech&RII
	Inspector and RII		Partially Voided	Pending	Pending Inspector	Pending Insp&RII
	Mechanic, Inspector & RII	Partially Voided	Pending	Pending	Pending Mechanic & Inspector	Pending Mech,Insp&RII
	Mechanic, Inspector & RII	Partially Voided	Partially Voided	Pending	Pending Mechanic & Inspector	Pending Mech,Insp&RII
All Partially Voided	Mechanic and Inspector	Partially Voided	Partially Voided		Pending Mechanic & Inspector	Pending Mechanic & Inspector
	Mechanic and RII	Partially Voided		Partially Voided	Pending Mechanic & Inspector	RII cannot be voided
	Inspector and RII		Partially Voided	Partially Voided	Pending Inspector	Pending Insp&RII
	Mechanic, Inspector & RII	Partially Voided	Partially Voided	Partially Voided	Pending Mechanic & Inspector	Pending Mech,Insp&RII
Some Signed Off and Some Partially Voided	Mechanic and Inspector	Signed Off	Partially Voided		Pending Inspector	Pending Inspector
	Mechanic and RII	Signed Off		Partially Voided	Pending Inspector	Pending RII
	Mechanic, Inspector & RII	Signed Off	Partially Voided	Pending	Pending Inspector	Pending Insp&RII

Note: *Pending will be Partial/Fully Pending (Even if one of the subtask(s) of a resource group is pending then the entire resource group is considered as pending for that task)*

Exhibit 1: Identifies changes in the **Task Card Details** screen of **MechanicAnywhere**

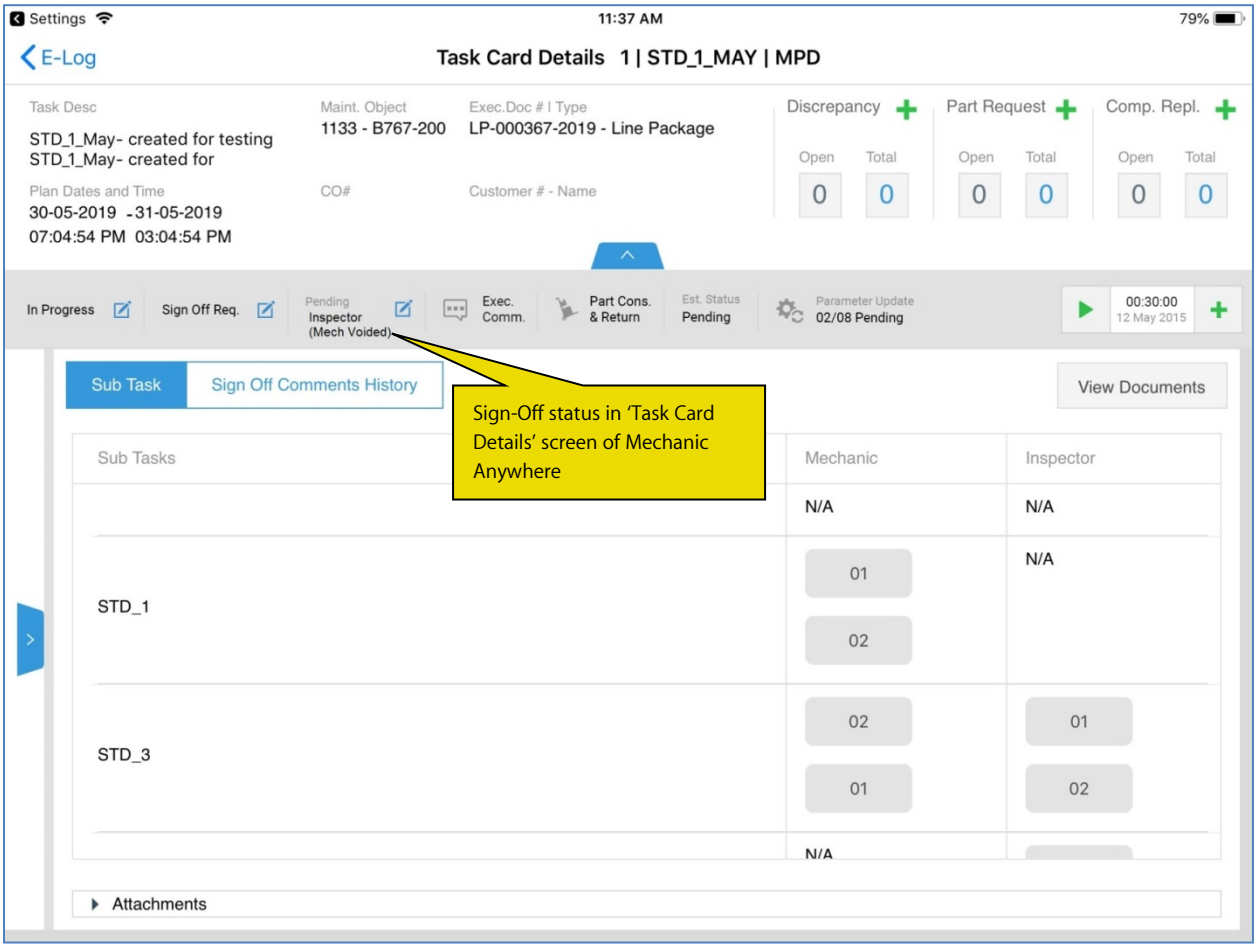


Exhibit 2: Identifies changes in the **Tasks** screen of **MechanicAnywhere**

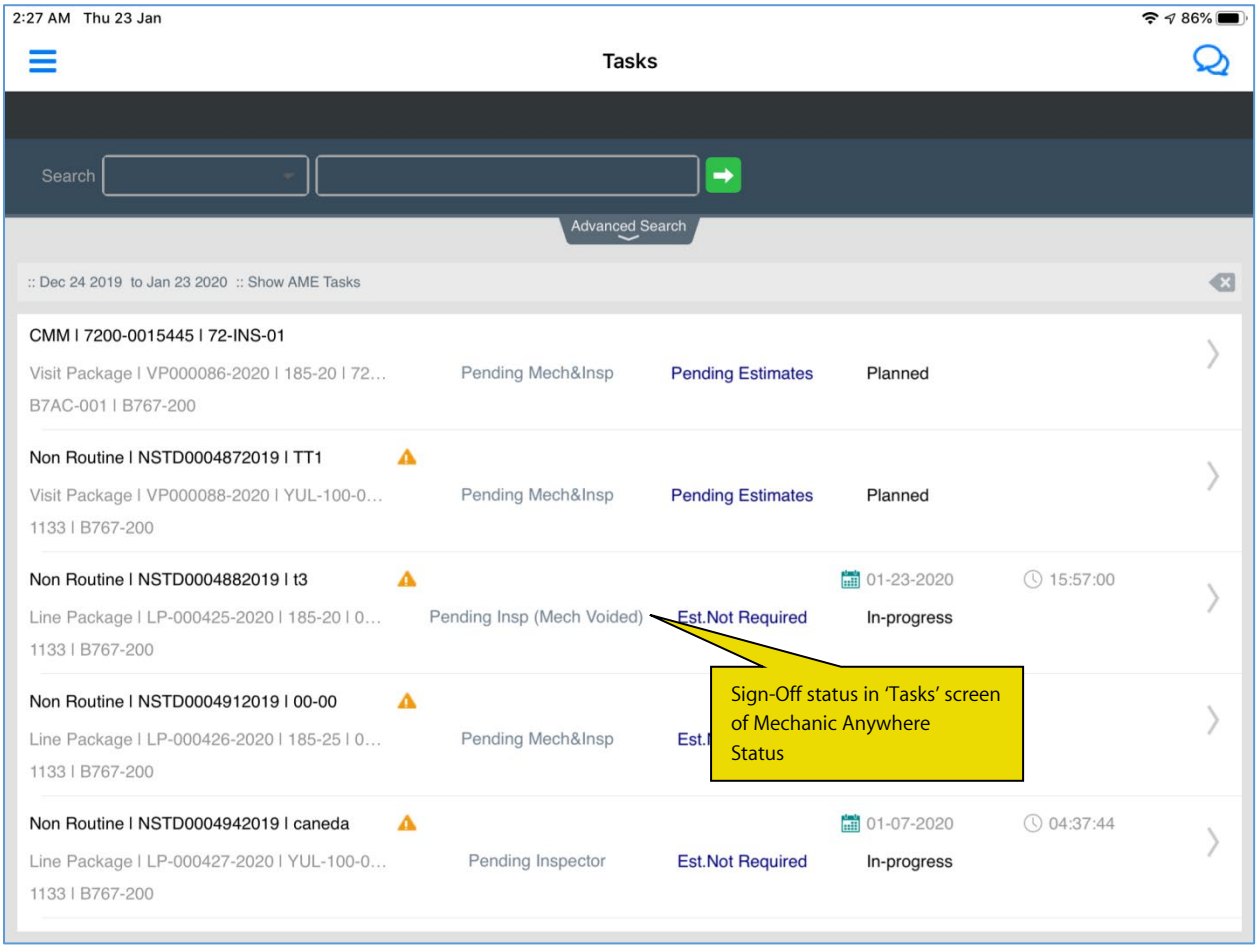
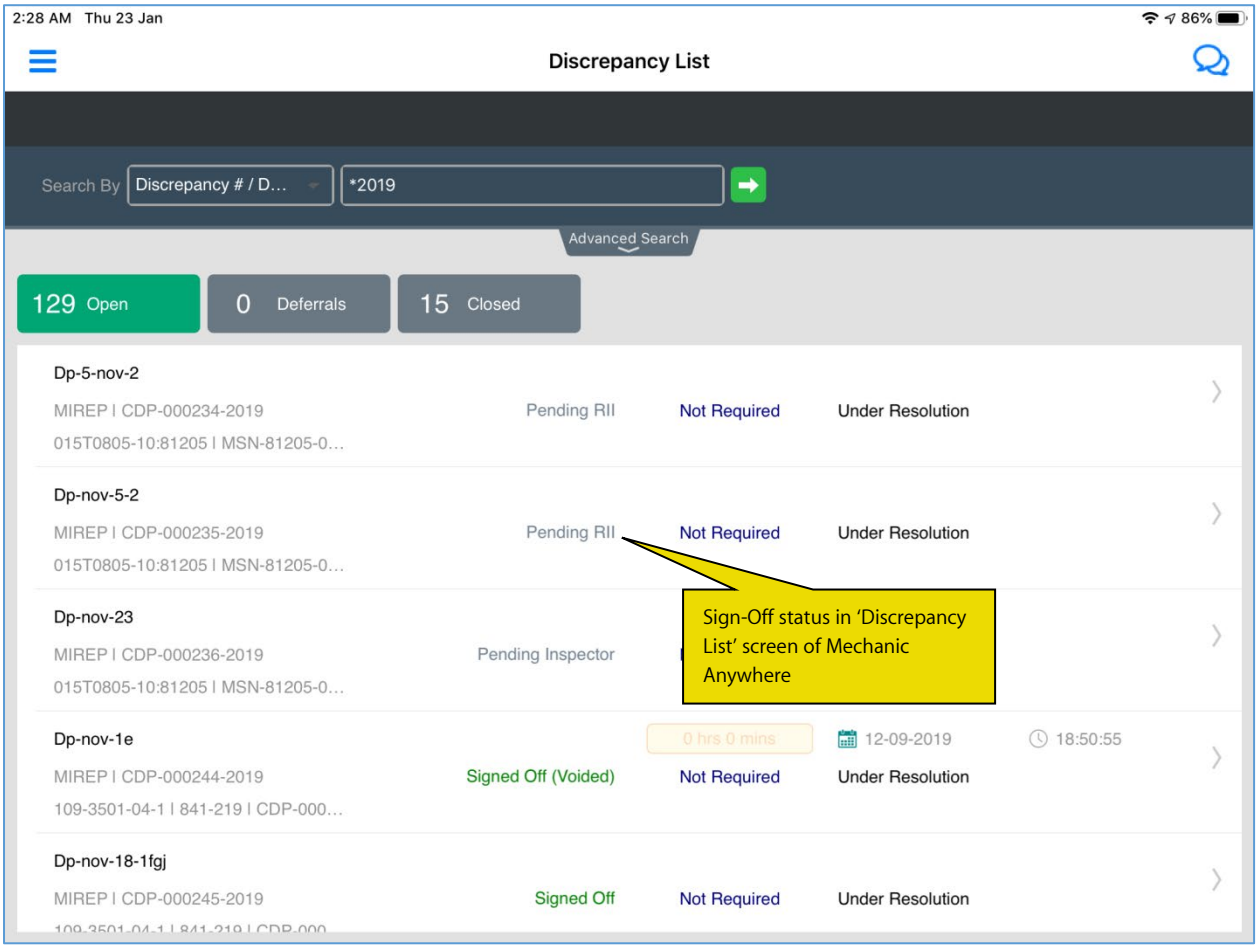


Exhibit 3: Identifies changes in the **Discrepancy List** screen of **MechanicAnywhere**



Ability to search with Part/Serial and sort by Seq # in List pages

Reference: APRP-175

Background

This enhancement brings improvements in searching and sorting in list pages. It would be easier for a mechanic to find out the task/discrepancy from the specified Exec. Doc. #, if the task/discrepancy is sorted based on the seq #. Moreover, it is required that all the List pages offer uniform search for Part #/Serial #.

Change Details

- This enhancement allows sorting the tasks and discrepancies in the increasing order of Seq # while searching with Exec. Doc # in the List pages.
- For task/ discrepancy, if the user is searching with a filter other than Exec. Doc#, the search results will be sorted by increasing/ascending order of Planned Start Date and Time of those tasks/discrepancy.
- For Component Replacements/Material Requests, if the user is searching with a filter other than Exec. Doc#, the search results will be sorted by increasing/ascending order of Created Date of those Component Replacements/Material Requests.
- The user can search with main core part # and serial # in all the list pages (Task, Discrepancy, Component Replacement, and Material Request).

Ability to clear data in Record Time page for quick input in MechanicAnywhere

Reference: APRP-172

Background

In MechanicAnywhere application, when multiple mechanics work on a particular task, each mechanic is required to book time for his working hours. The second mechanic needs to clear the existing data (Employee #, Start Time, End Time etc.) belonging to the first mechanic, manually before booking the time. The mechanic who is booking the time after the first one, should have an easy way to clear the particular data which belongs only to the first mechanic. This enhancement provides the ability to clear data in **Record Time** screen, enabling easy and quick input.

Change Details

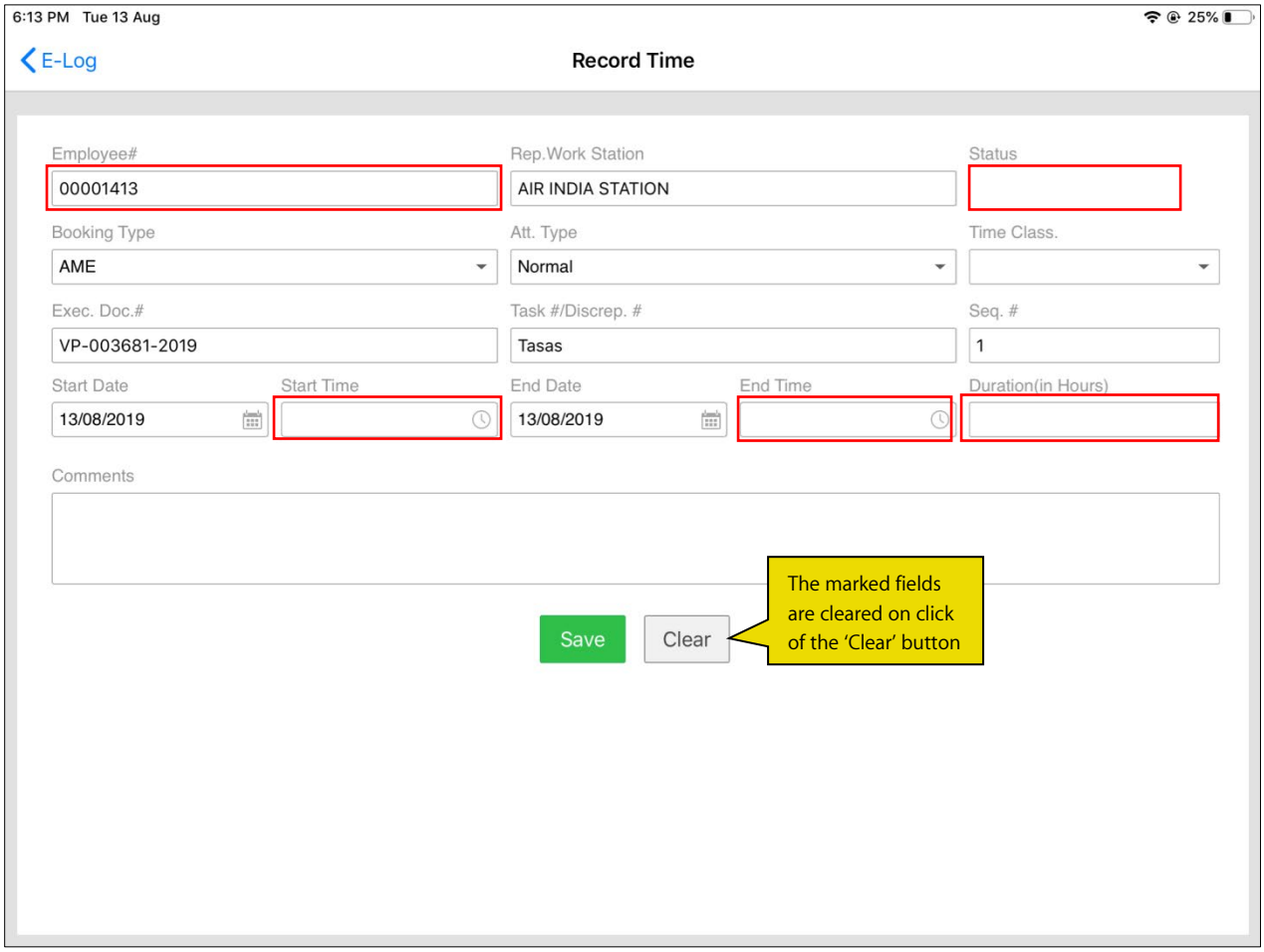
MechanicAnywhere

A new button 'Clear' is added in the **Record Time** screen of the **MechanicAnywhere** application. On tap of the 'Clear' button, the following fields containing data belonging to the mechanic who already recorded the time are cleared, to enable the next mechanic to book his time:

- Employee #
- Status
- Start Time
- End Time
- Duration

On tap of the 'Save' button, the new record entered after clearance of the first mechanic's data will be saved as time booking for the second mechanic.

Exhibit 1: Identifies the **Record Time** screen



Ability to use multiple search criteria to search for discrepancies in the Discrepancy List screen

Reference: APRP-399

Background

In **MechanicAnywhere**, the mechanics might search for the discrepancies based on Aircraft Reg # and ATA # as additional search to retrieve more precise discrepancies. The following fields - ATA #, Log Item #, Discrepancy # / Desc are already available in the Primary Search section. Further, the users may also want to retrieve the discrepancies based on the Reported From and Reported To dates. Hence, the search facility has been enhanced in the Advanced Search section of Discrepancy List screen with new filters.

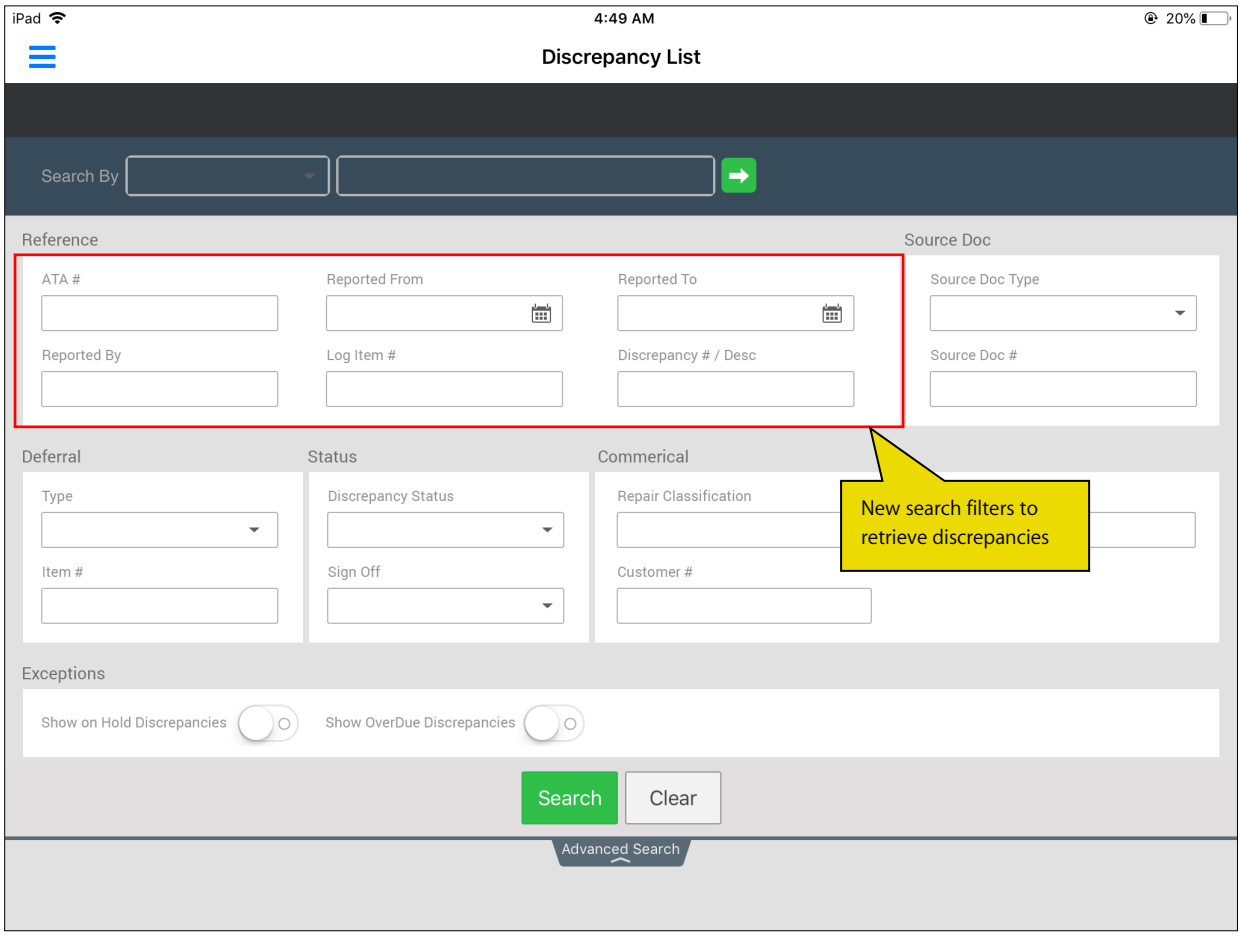
Change Details

The Search feature in the **Discrepancy List** screen will be enhanced in the following way to enable users to find and retrieve discrepancies based on multiple criteria:

- Advanced Search criteria will now include these additional filters:
    - **ATA #**
    - **Reported From**
    - **Reported To**
    - **Log Item #**
    - **Discrepancy # / Desc**

Note: If the user has specified different ATA # under both the Search By and Advanced Search sections, the system will not consider any of the ATA # for search and retrieval of discrepancies.

Exhibit 1: The **Discrepancy List screen** in **E-Log**



Ability to Print Component Due List Report from MechanicAnywhere

Reference: APRP-398

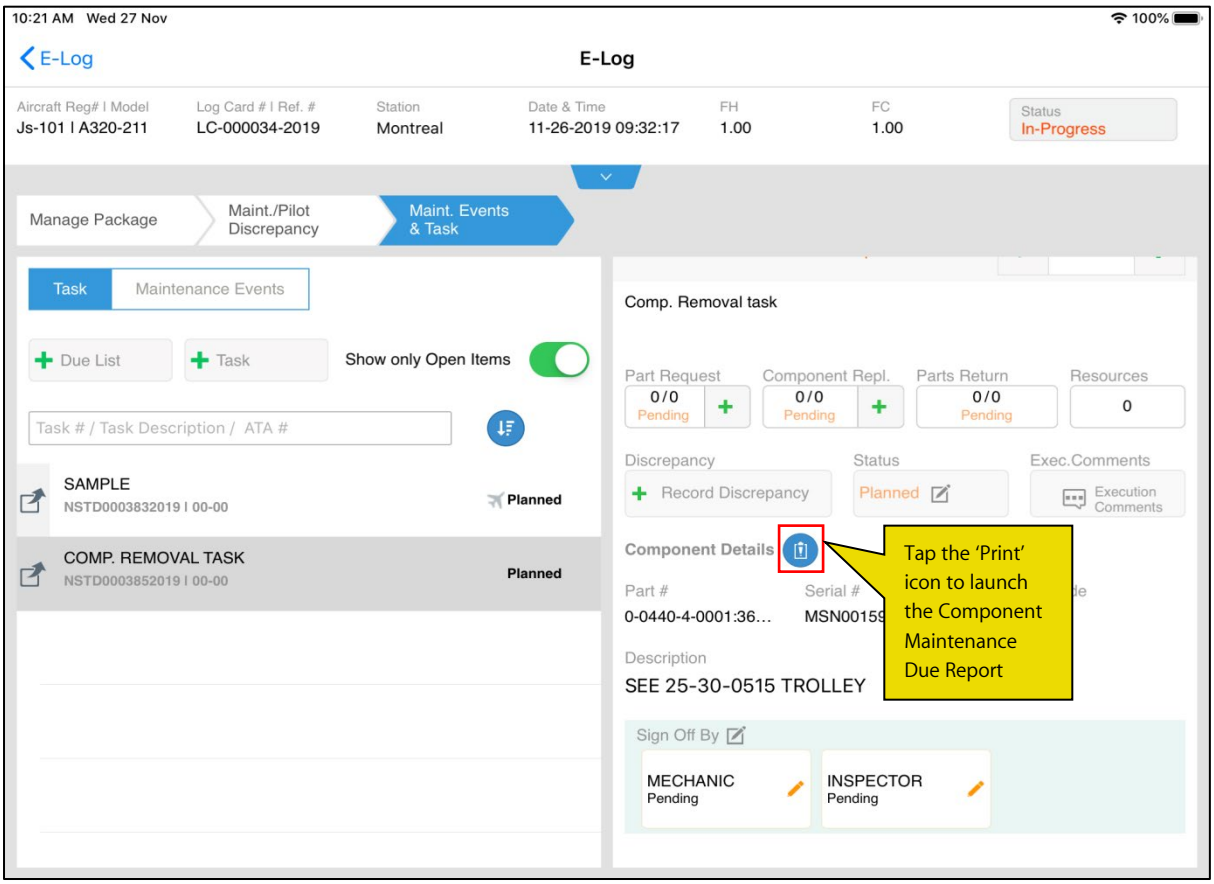
Background

When an On-Wing or Component Removal task is getting added to the package for execution, the mechanic who executes the task needs to review the Component Maintenance due list of the Part # and Serial # and execute necessary action. Hence, a provision to generate the **Component Maintenance Due report** for the specific Part # and Serial # is required in **MechanicAnywhere**.

Change Details

New **Print** icon has been introduced in the **Component Details** section of the **Maint. Events & Task** tab of the **eLog** screen.

Exhibit 1: Print icon in the **Component Details** section



Ability to open Rejected Timebooking for Re-booking on click of the Rejected Timebooking Notification

Reference: APRP-586

Background

When supervisors reject time sheets of their direct reports, the application will send a notification message to their iPads. The business need is to open the **Record Time sheet** page and default the Rejected Time booking for rebooking.

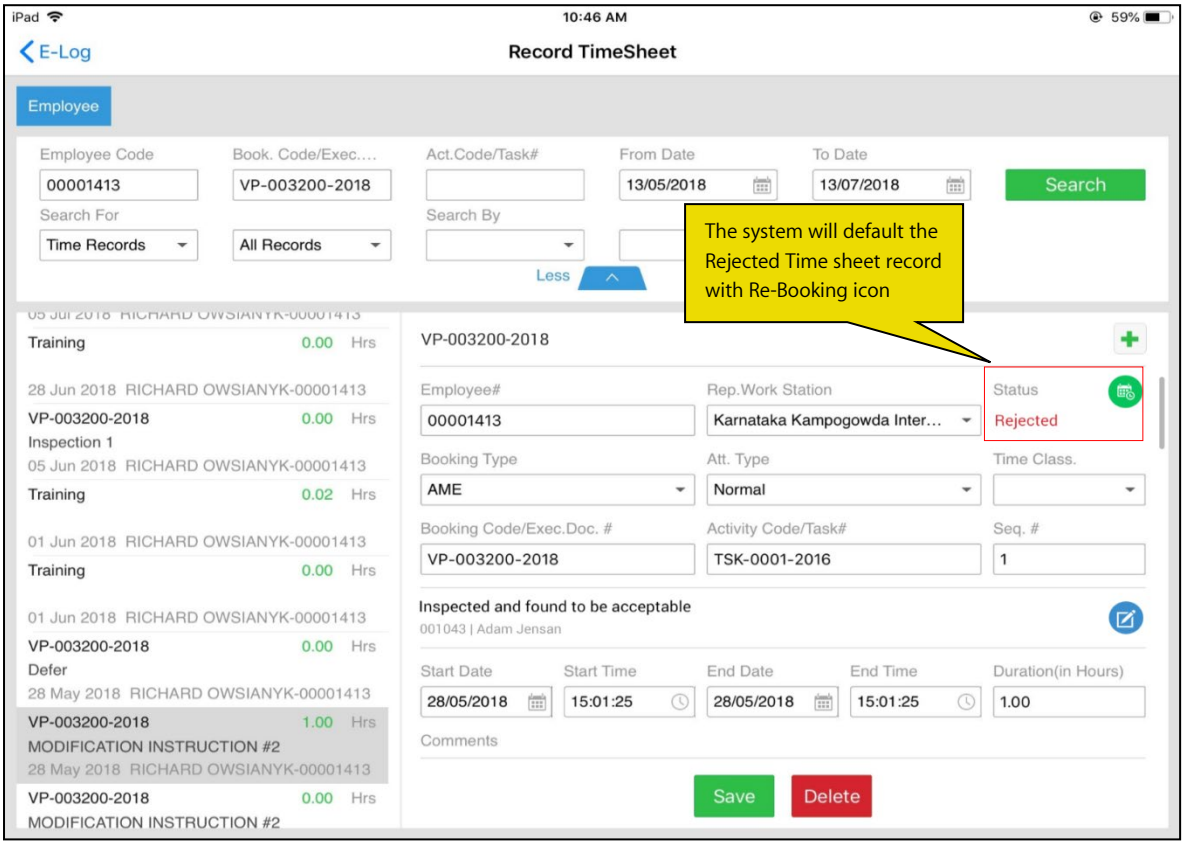
Change Details

New process parameter 'Notify the Employee when a Timesheet is Rejected?' has been introduced under the Entity Type 'Notifications' and the Entity 'MechanicAnywhere' in the **Define Process Entities** activity of **Common Master** business component.

Process Parameter Value	Impact
1 for Yes	The Reject Timesheet notification will be appear in the iPad when the booked timesheet has been rejected for the user
0 for No	The Reject Timesheet notification will not appear in the iPad when the booked timesheet has been rejected for the user

On tap of the 'Rejected Time booking Notification on the iPad ', **MechanicAnywhere** will launch the **Record Time Sheet** screen with the respective time sheet record with the Re-booking option.

Exhibit 1: Defaulting Rejected Timesheet record in the **Record TimeSheet** screen



Ability to default Object Type as 'Other Parts' for aircraft that do not have Configuration in MechanicAnywhere

Reference: APRP-407

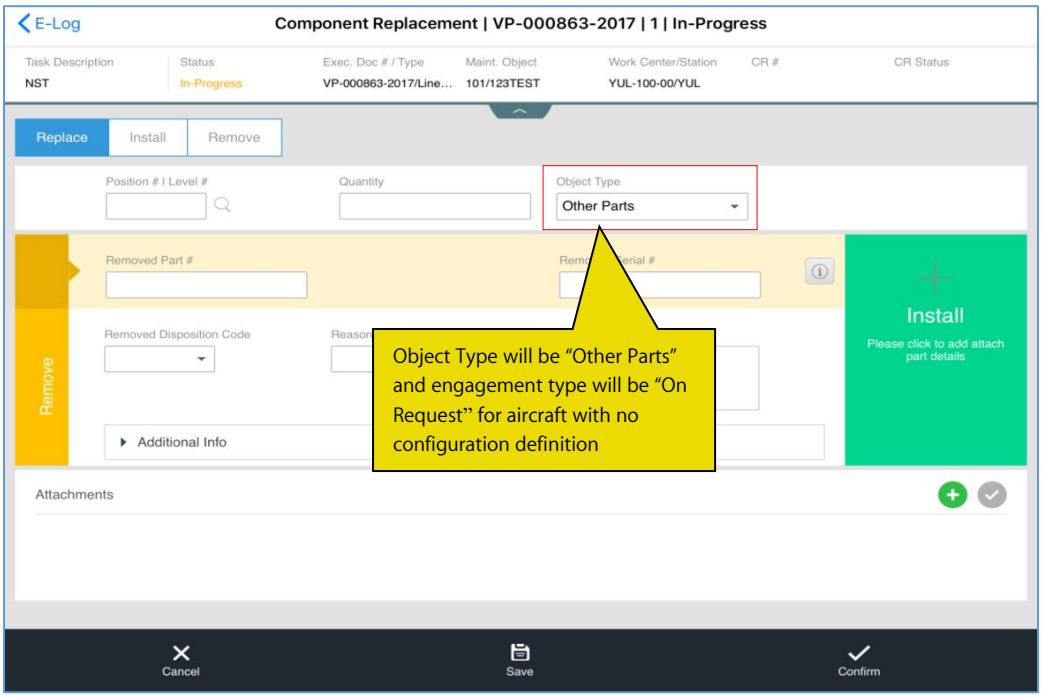
Background

The MROs usually do not maintain the aircraft configuration in their system. Hence, for performing the component replacements for a task or discrepancy of a package, the "Object Type" is selected as "Other Parts".

Change Details

- This enhancement helps to default Object Type according to the configuration and engagement type.
- If the user wants to do a component replacement in the **Component Replacement s**creen of **MechanicAnywhere**, the object type will be defaulted as "Other Parts" and engagement type is selected as "On Request" for the aircraft for which configuration is not defined.

Exhibit 1: Identifies the changes in the **Component Replacement** screen of **e-Log**



Ability to capture Repair Classification and Discr. Category in Create Discrepancy UI of MechanicAnywhere

Reference: APRP- 397

Background

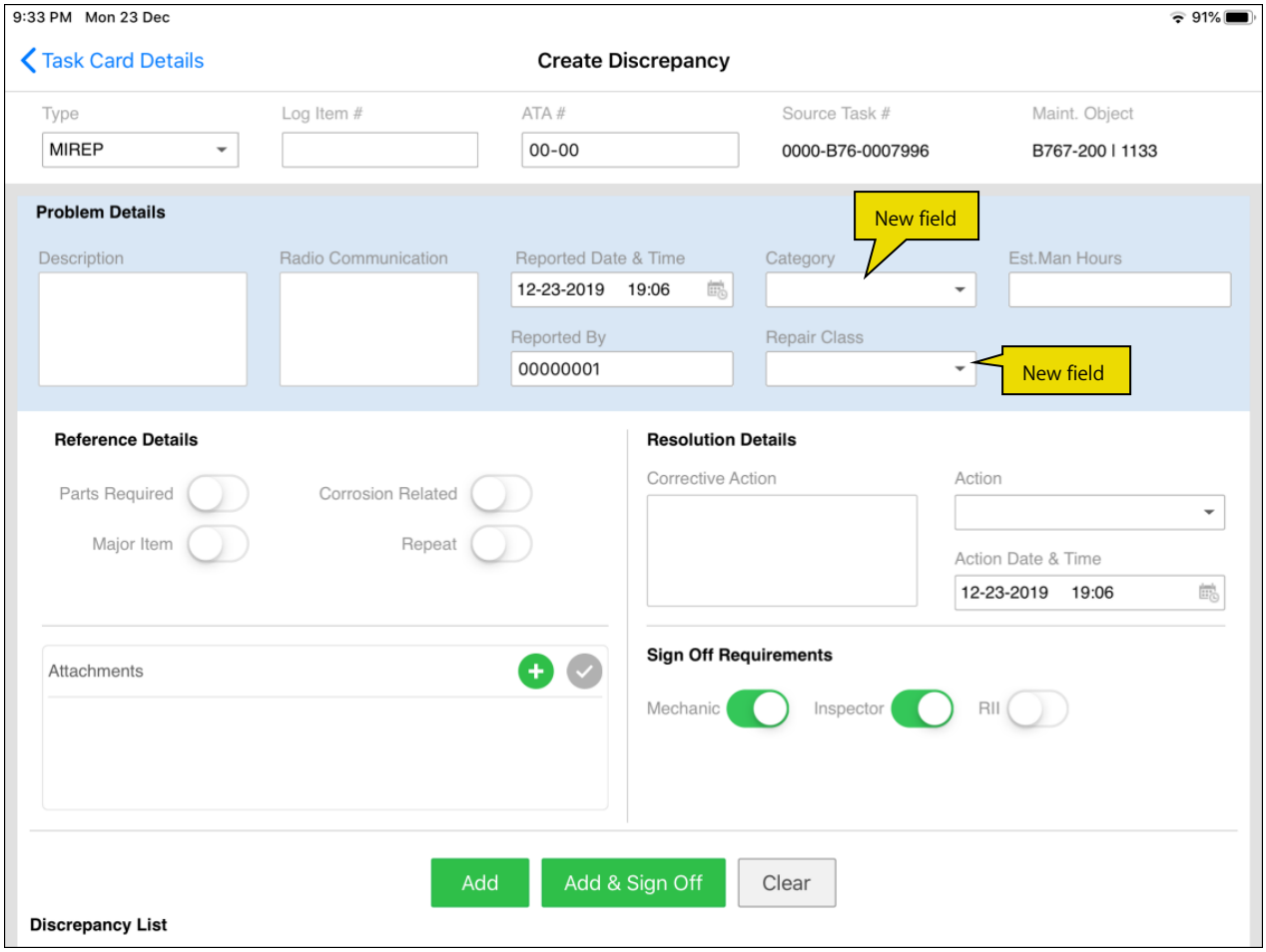
In the **MechanicAnywhere** mobile application, the users are required to record **Repair Classification** and **Discrepancy Category** for discrepancies at the time of creation. Currently, after having created discrepancies in the **Create Discrepancy** page, the users navigate to the **Edit Discrepancy** page to record these attributes. This makes the process of discrepancy creation a two-step process. Hence, including these two input fields in the **Create Discrepancy** screen would enable the users to complete the discrepancy creation process in the **Create Discrepancy** screen itself without having to access the **Edit Discrepancy** page.

Change Details

To enable the users to record **Repair Classification** and **Discrepancy Category** in the **Create Discrepancy** screen of e-Log, the following changes have been brought in **MechanicAnywhere**.

- New input fields (drop--down list boxes) – **Repair Classification** and **Discrepancy Category** have been added in the **Create Discrepancy** screen to record user-defined attributes of **Repair Classification** and **Discrepancy Category** for a discrepancy.
- On invoke of **Add** and **Add & Sign Off** buttons, these attributes will be saved against the discrepancy.

Exhibit 1: Identifies the changes in the **Create Discrepancy** screen of **e-Log**



Ability to record new Time quickly in MechanicAnywhere

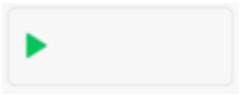
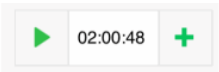
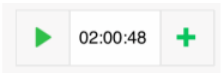
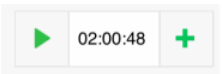
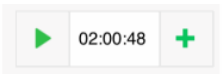
Reference: APRP-154

Background

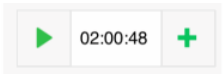
In the **MechanicAnywhere** online mobile application, the mechanics record time against tasks / discrepancies more often than they view / update timesheet entries. Currently, recording, updating and viewing time sheet are carried out by means of a single screen of **Record Timesheet** in **MechanicAnywhere**. This requires the manual entry of repetitive data making the timesheet recording time-consuming. Hence, a simplified means of recording time so as to complete the tedious / repetitive job of time booking quickly is required in **MechanicAnywhere**. Further, a provision to know whether time has been booked against a corrective action or not must be available for the users.

Change Details

To facilitate the users to record timesheet swiftly, the following new developments have been incorporated in **MechanicAnywhere**:

- The  button has been replaced by the new  button in the following e-Log screens:
    - Task tab in e-Log
    - Task Card Details
    - Discrepancy tab in e-Log
    - Discrepancy Card
- The  button helps the users to perform the following multiple tasks:
    - Tap on  to the Start / Stop Clock
    - Tap on the time duration to open **View Time** screen in the View / Edit mode
    - Tap on  to open the Record Time screen
- The existing screen of **Record timesheet** (that is invoked at the package –level) has been modified in the following way:
    - The Employee label has been removed from the Search section
    - The  button that can be used to create new timesheet will now be available in the left pane
    - Under the new **Time Details** head in the left pane, all the timesheet entries will be listed.
- In the e-Log screen under the **Maint. Events & Tasks** tab, the modified  button has been added to enable the users to quickly record time duration against the task. On tap of in the button, the **Record Time** screen opens up with all the fields defaulted for the selected task. The user can update the **Start Date**, **Start Time**, **End Date**, **End Time** and **Comments** fields for booking a new time for the task.
- Tap on the **Time Duration** control in the  button to open the **View Time** screen. The

View Time screen will be similar to the now-enhanced **Record Timesheet** screen. The **View Time** screen will be accessible in two modes – Edit and View; allowing the users to view the timesheet in addition to modifying timesheet entries..

- Similarly, the 

button works as explained above in the **Discrepancy** tab in eLog, **Task Card Details** and **Discrepancy Card** screens also.
- New column **Time?** Has been added in the **Resolution History** tab in **Discrepancy Card** screen. This new column displays color-coded icons that help to instantly identify those corrective actions for which time has been booked and those for which time has not been booked. Similar icons will be displayed in the **Select a Corrective Action** popup to differentiate already time-booked and not yet time-booked corrective actions for the discrepancy.

Icon	Representation
	Time already booked for the corrective action
	Time not yet booked for the corrective action

- However, the **Time?** column will appear only if the process parameter "Time Booking level for Discrepancies?" is set as '1' for the package type of the selected discrepancy since it establishes whether time has been booked against the corrective actions or not. The functionality of the process is illustrated in the table below:

Process Parameter: "Time Booking level for Discrepancies?	
Parameter Value	**Impact**
1 for Corrective Action Level	The mechanics can book time sheet for each of the corrective actions executed to resolve the discrepancy
0 for Discrepancy Level	The mechanics can book time sheet only against the discrepancy and not individual corrective actions performed against the discrepancy

- With the new enhancement, the new **Record Time** and **View Time** screens can be accessed to record/modify/view individual time sheet records against a task / discrepancy. In these new screens, all fields will be defaulted from the selected timesheet record against a task / discrepancy making time booking a swift / simple activity.

Exhibit 1: Identifies the new **Record Timesheet** screen

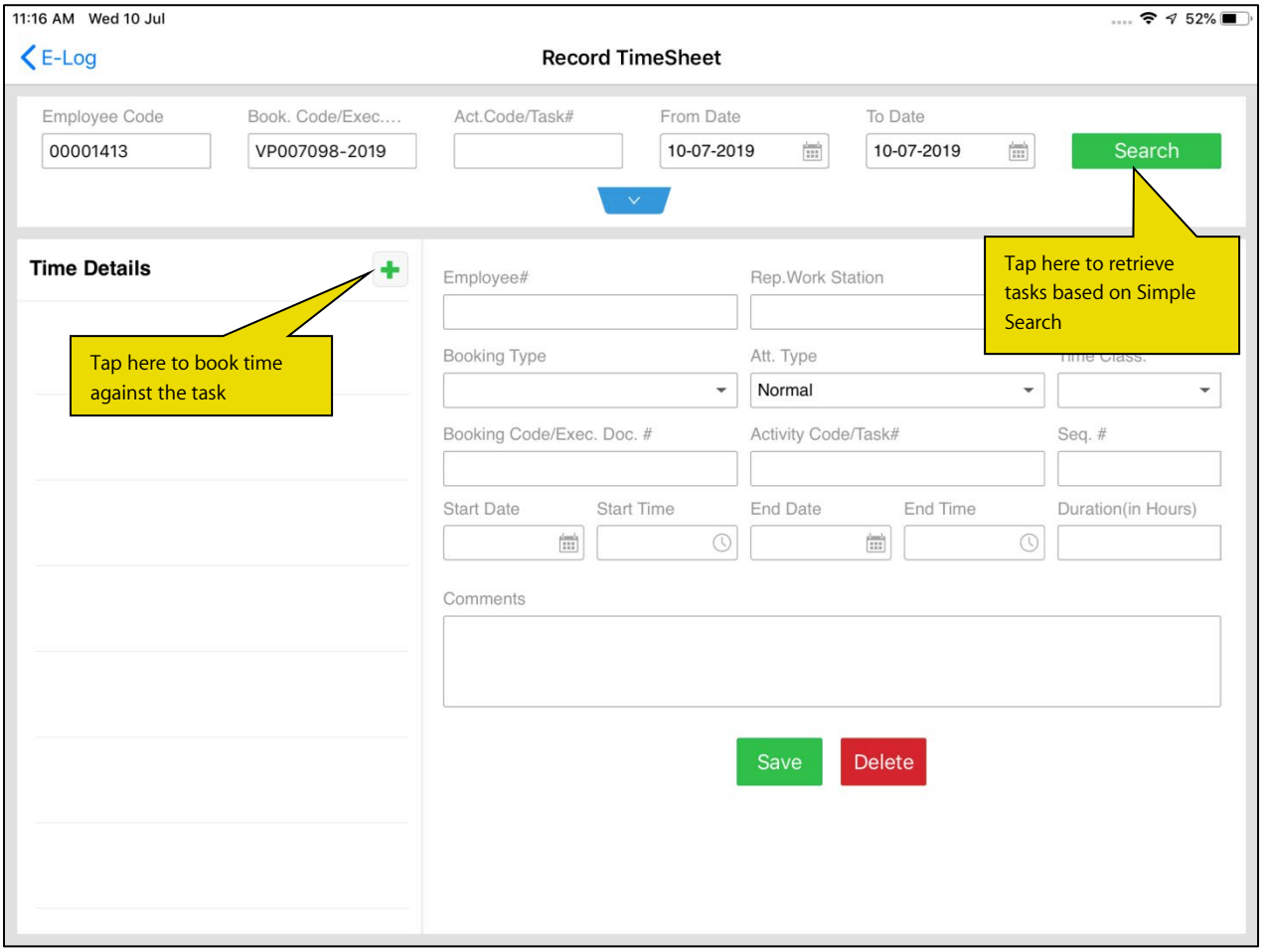


Exhibit 2: Identifies the changes in the **Task tab of eLog** screen

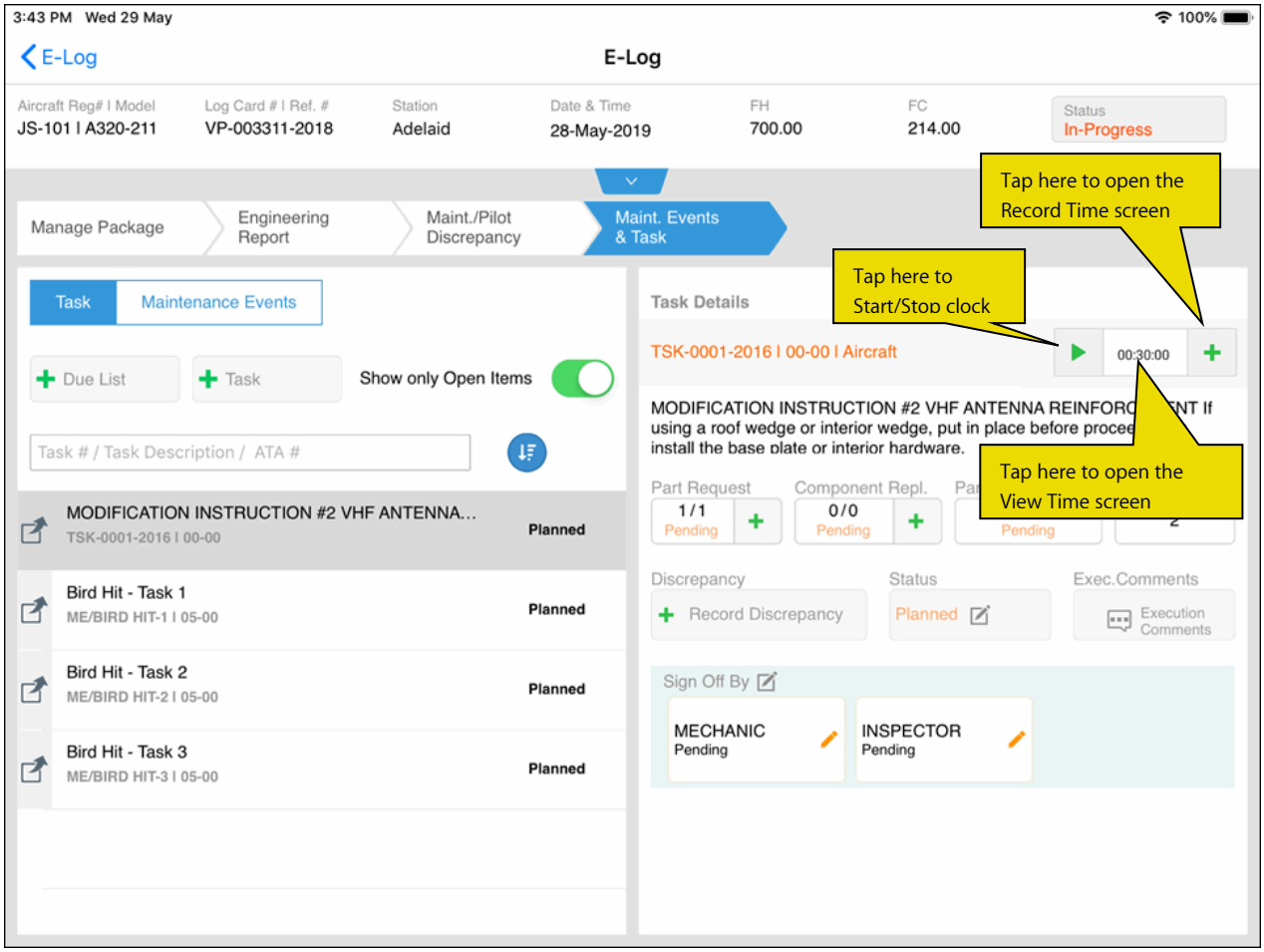


Exhibit 3: Identifies the new **Record Time** screen

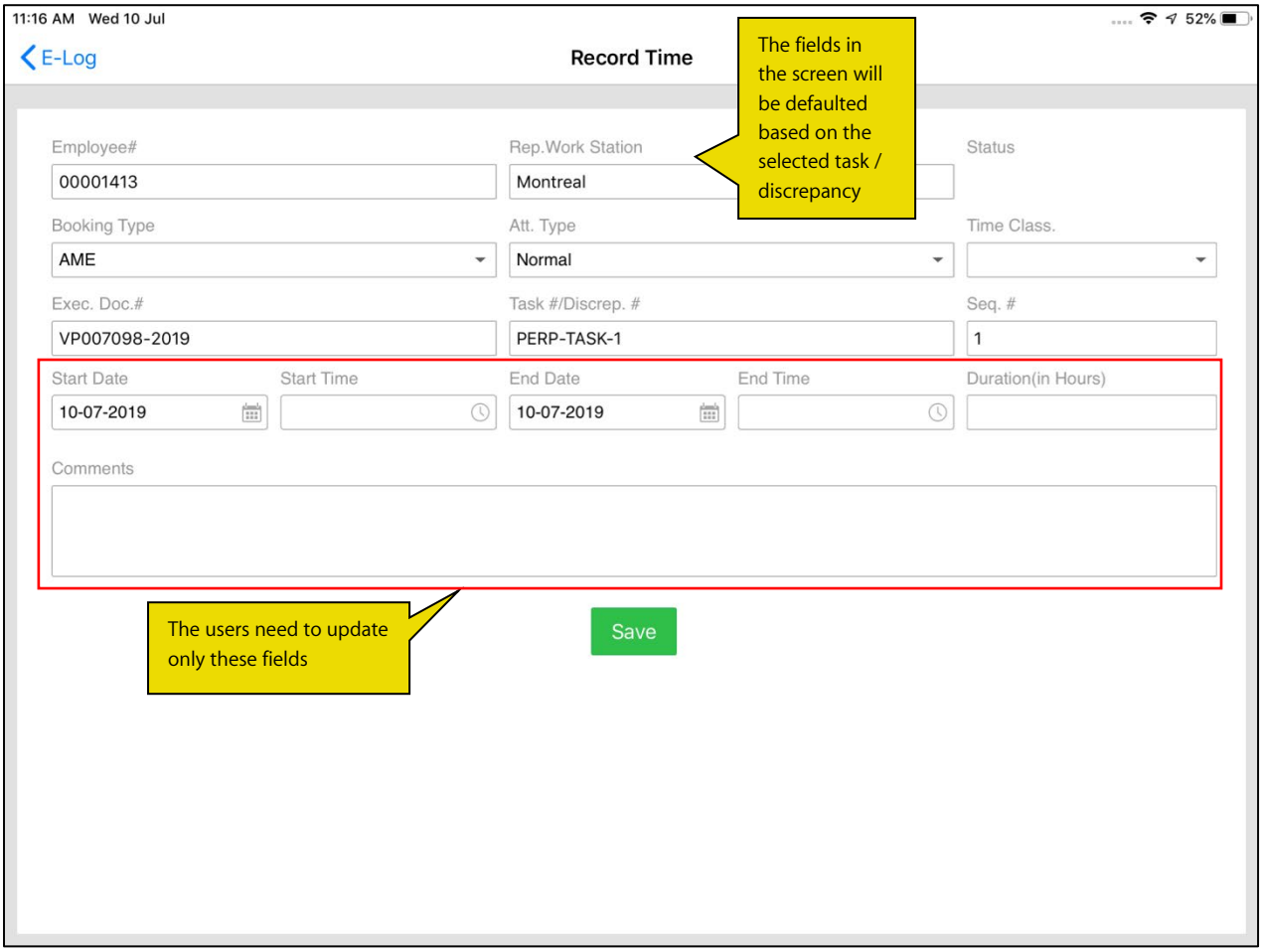


Exhibit 5: Identifies the new **View Time** screen

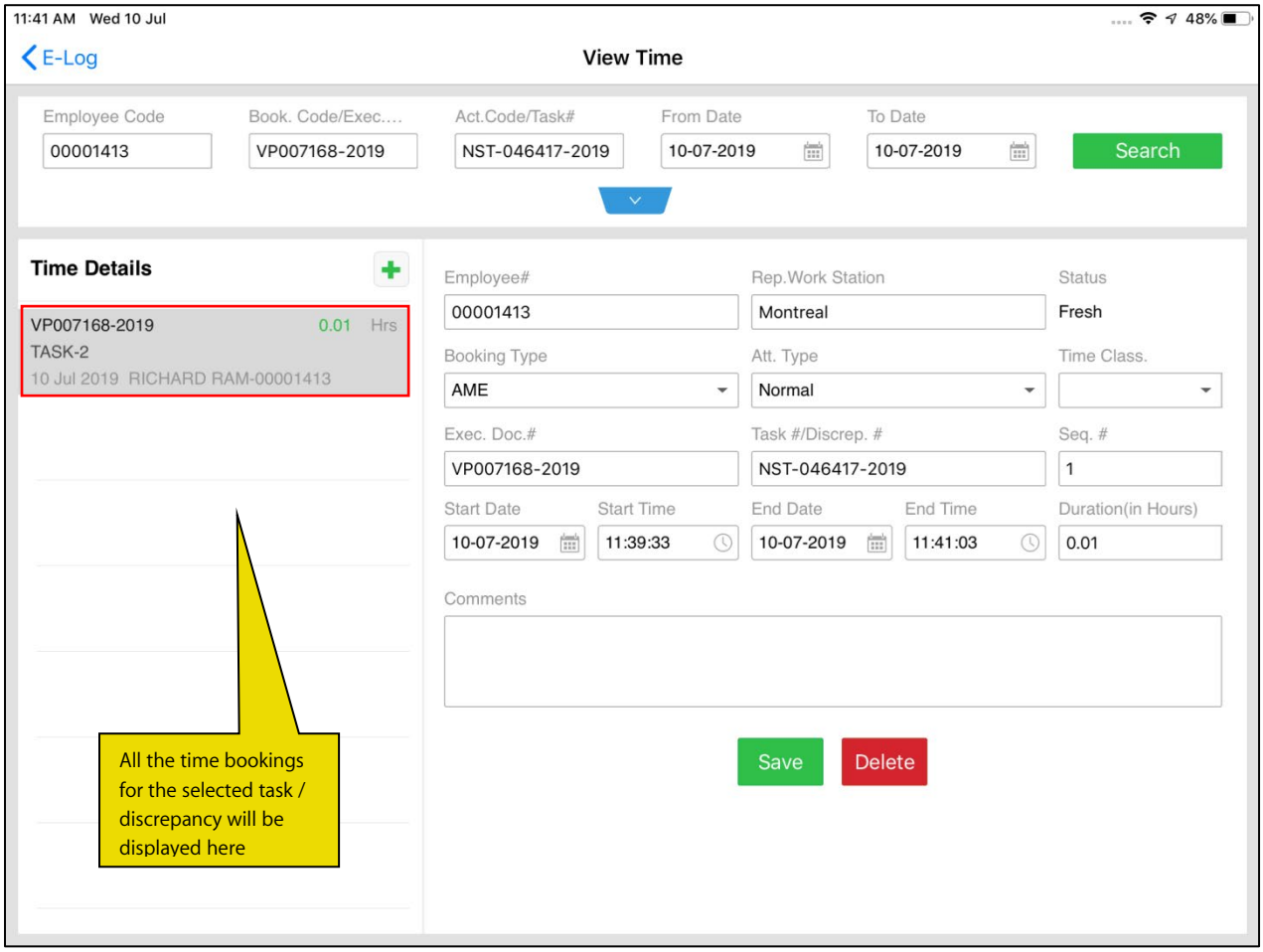


Exhibit 6: Identifies the changes in the **Select a Corrective Action** popup of the **Record Timesheet** screen

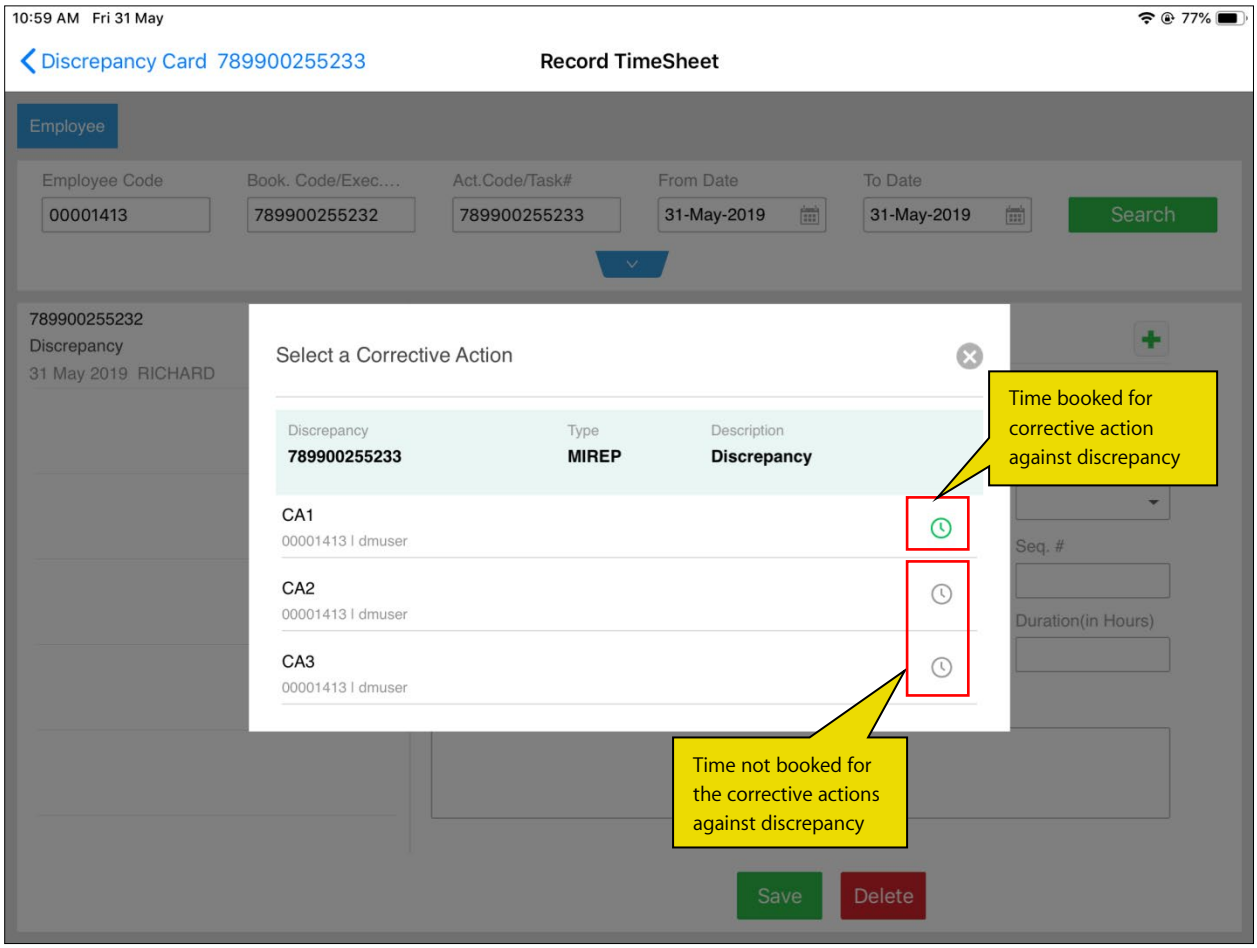
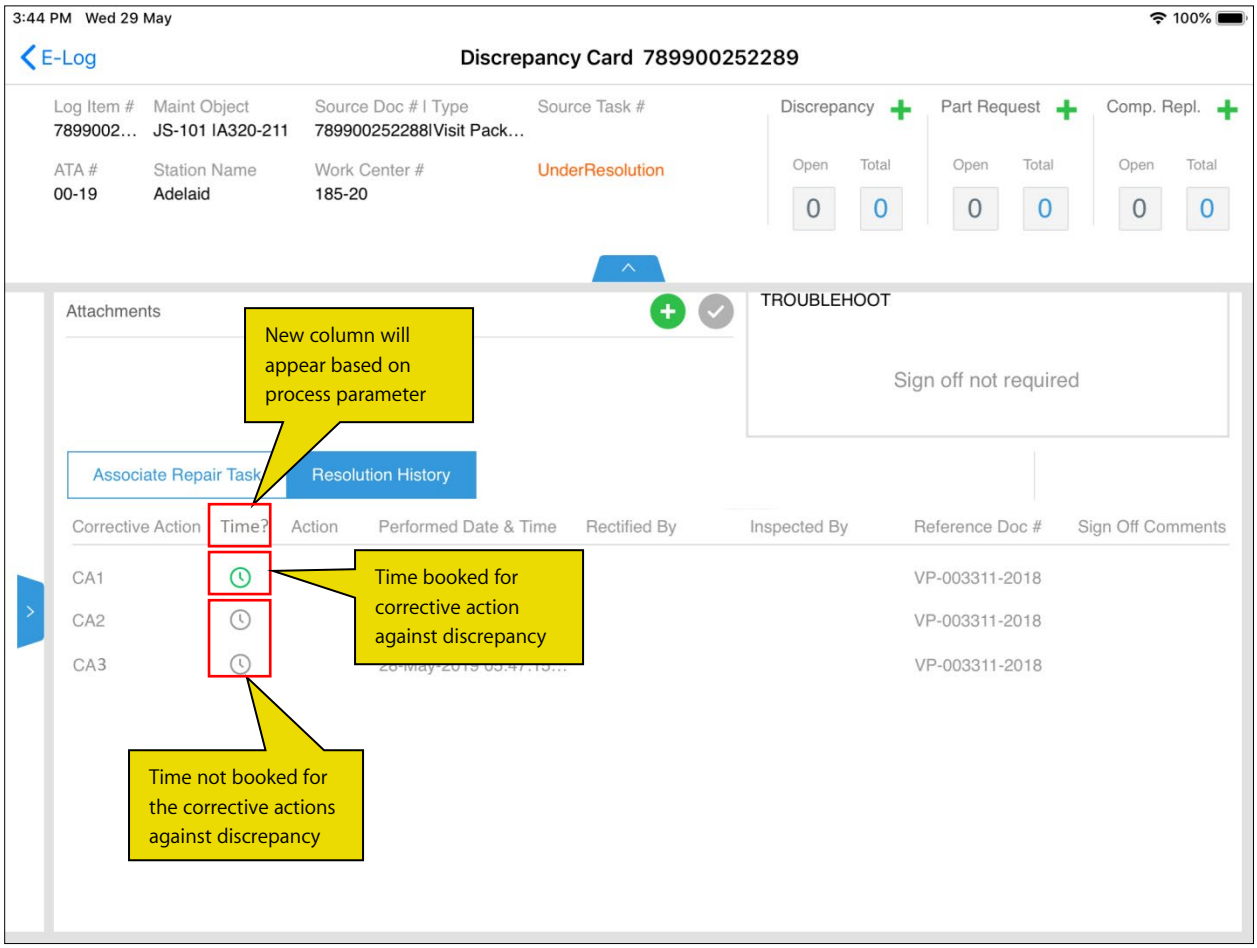


Exhibit 5: Identifies the changes in the **Resolution History** tab of **Discrepancy Card**



Ability to prevent Mechanics from closing the Package from eLog

Reference: APRP-153

Background

In certain MRO organizations, the mechanics execute maintenance tasks and complete the package but do not close the package. The package closure job is undertaken by an authorized person after due review. Hence, a provision to restrain the mechanics from closing the packages is required in the MechanicAnywhere mobile application.

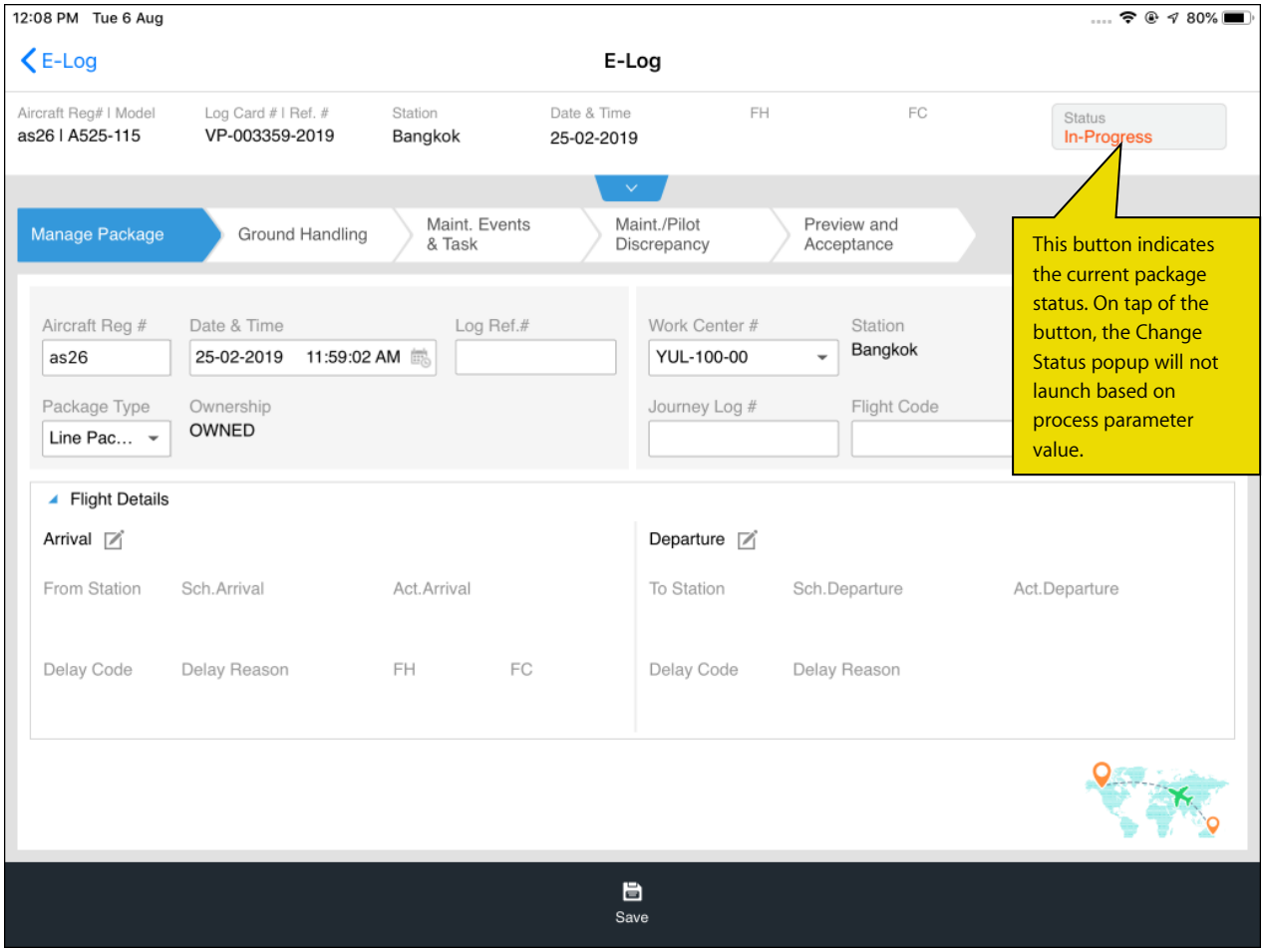
Change Details

In order to restrain the mechanics from closing packages in eLog, the following new developments have been built in MechanicAnywhere:

- New process parameter 'Allow Package Closure in eLog?' has been added under the entity type Mobility and the entity MechanicAnywhere in the Define Process Entities activity of Common Master to allow / disallow closure of completed packages by mechanics. The functionality of the new process parameter is illustrated in the following table.

Process Parameter: Allow Package Closure in eLog?	
Process Parameter Value	**Impact on closure of completed packages**
1 for Yes	The Status button will display the current status of the package. And on tap of the Status button, the Status Change popup will appear. The users can now change the status of the package to Closed.
0 for No	The Status button will display the current status of the package only. On tap of the Status button, the Status Change popup will not appear. This prevents the users from changing the status of the packages.

Exhibit 1: Identifies the changes in **eLog**



WHAT'S NEW IN LINEANYWHERE?

Ability to update parameters against Task/subtask from LineAnywhere

Reference: APRP-749

Background

During aircraft maintenance, the mechanics review the parameter conditions of aircraft and then update the actual parameter readings. Further, the system will not allow the users to complete the tasks, if any mandatory parameters have not been updated. Currently, a facility to update the actual reading of parameters is available in **Ramco Aviation** suite and MechanicAnywhere. A similar facility is needed in **LineAnywhere** to record parameter readings in the offline mode to track maintenance activities executed in remote locations.

Change Details

To enable the users to record parameter values in **LineAnywhere**, the following improvements have been incorporated in the **Tasks** tab of **E-Log** screen

- New button  has been added in the right pane of the Task tab. The users can tap the button to open the new **Parameter Recording** popup and record parameter values for the task / subtasks. However, the  button appears only if parameter definition is available for the tasks / sub tasks.
- The popup will have two tabs:
    - Task
    - Sub Task
- Both the **Task** and **Sub Task** tabs will comprise the following fields:
    - Parameter: Displays the parameter defined for the task
    - Value/Eval. Response: Captures the parameter value
    - Exe. Remarks: Captures execution details of the task
    - Updated Date & Time: Captures date & time of parameter update. However, the field is defaulted with the current date and time.
    - Updated By: Captures the ID of the employee who performed the parameter update. However, the field is defaulted to the employee ID of the current login user
- These fields in the **Conditional Evaluation** multiline in the **Task** and **Sub Task** tabs will display Conditional Evaluation defined for the parameters
    - Trigger Value/ Min/Max
    - Follow-Up Action
    - Follow-Up Task #
    - Follow-Up Instruction
    - Remarks
- The update mode of the parameters is depicted using icons in the following way:
    - Delta is depicted by 
    - New is depicted by

- Parameters mandatory or non-mandatory are depicted using colors in the following way:
    - Amber indicates the parameter is mandatory
    - Yellow indicates the parameter is non-mandatory and is pending update
    - Green indicates the parameter has already been updated
- On tap of the update mode icon, a callout with the current and permitted values defined against the parameters will appear.

Exhibit 1: The **Task** section of the **Tasks** tab of **eLog**

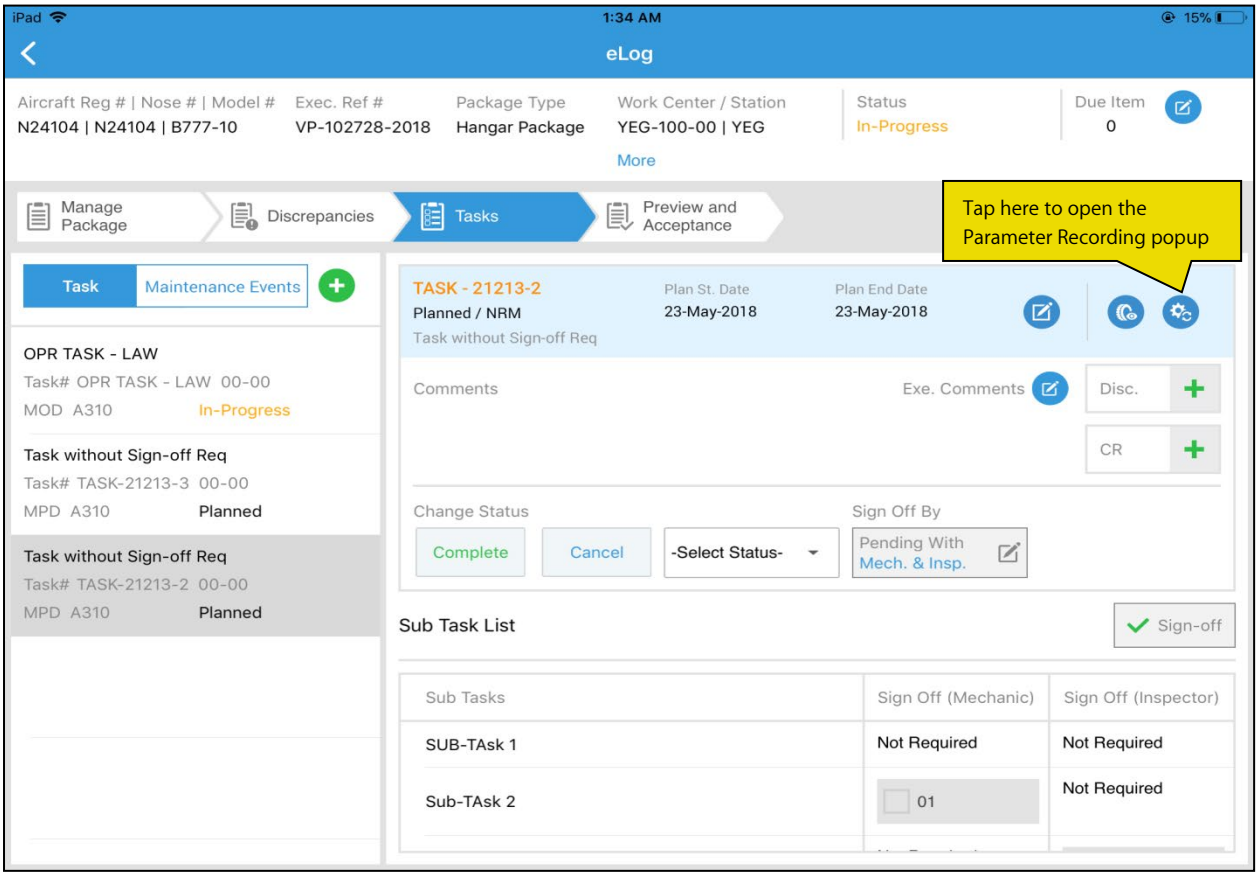


Exhibit 2: The **Task** tab of **Parameter Recording** popup

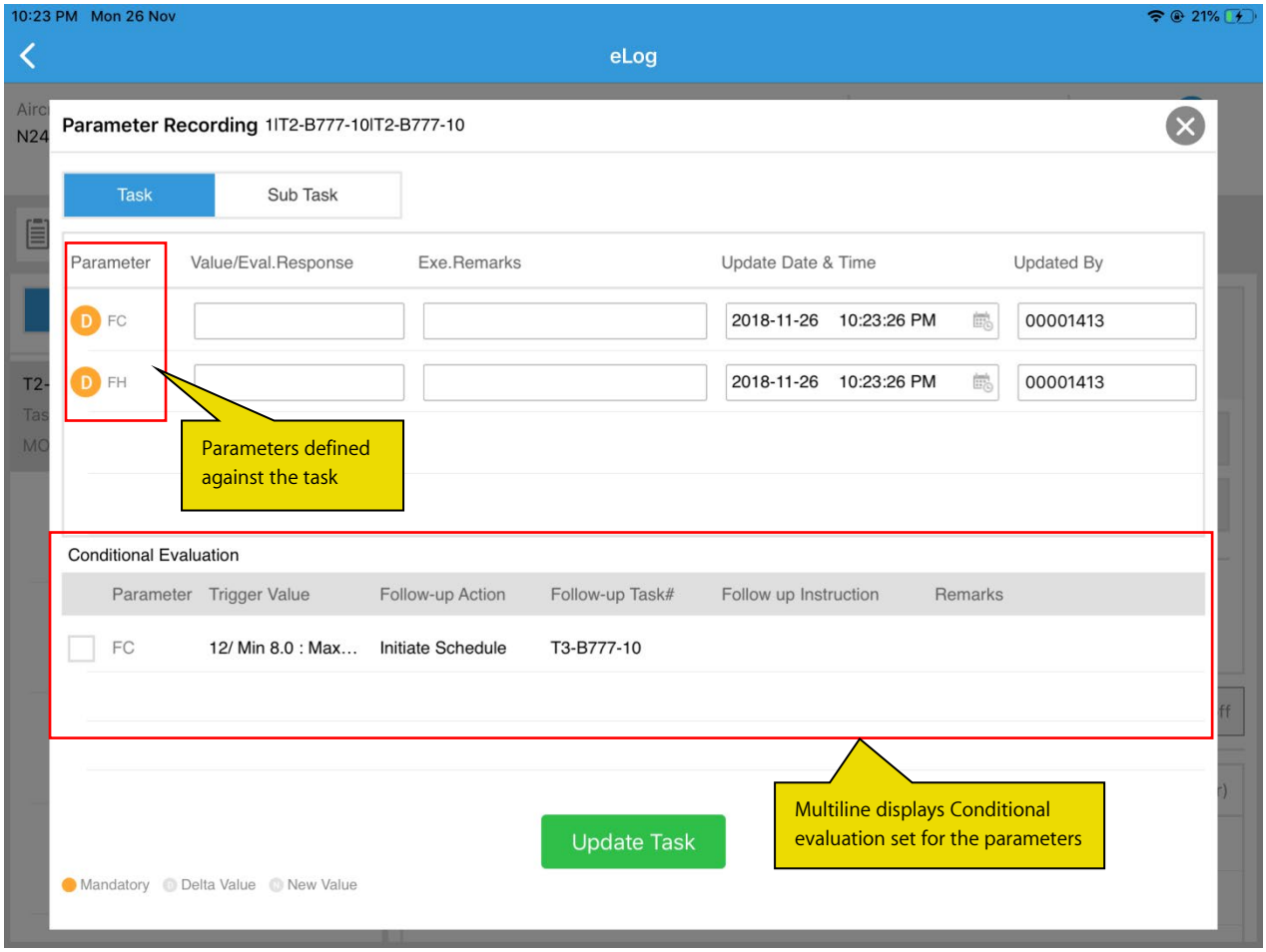


Exhibit 3: The Sub Task tab of Parameter Recording popup

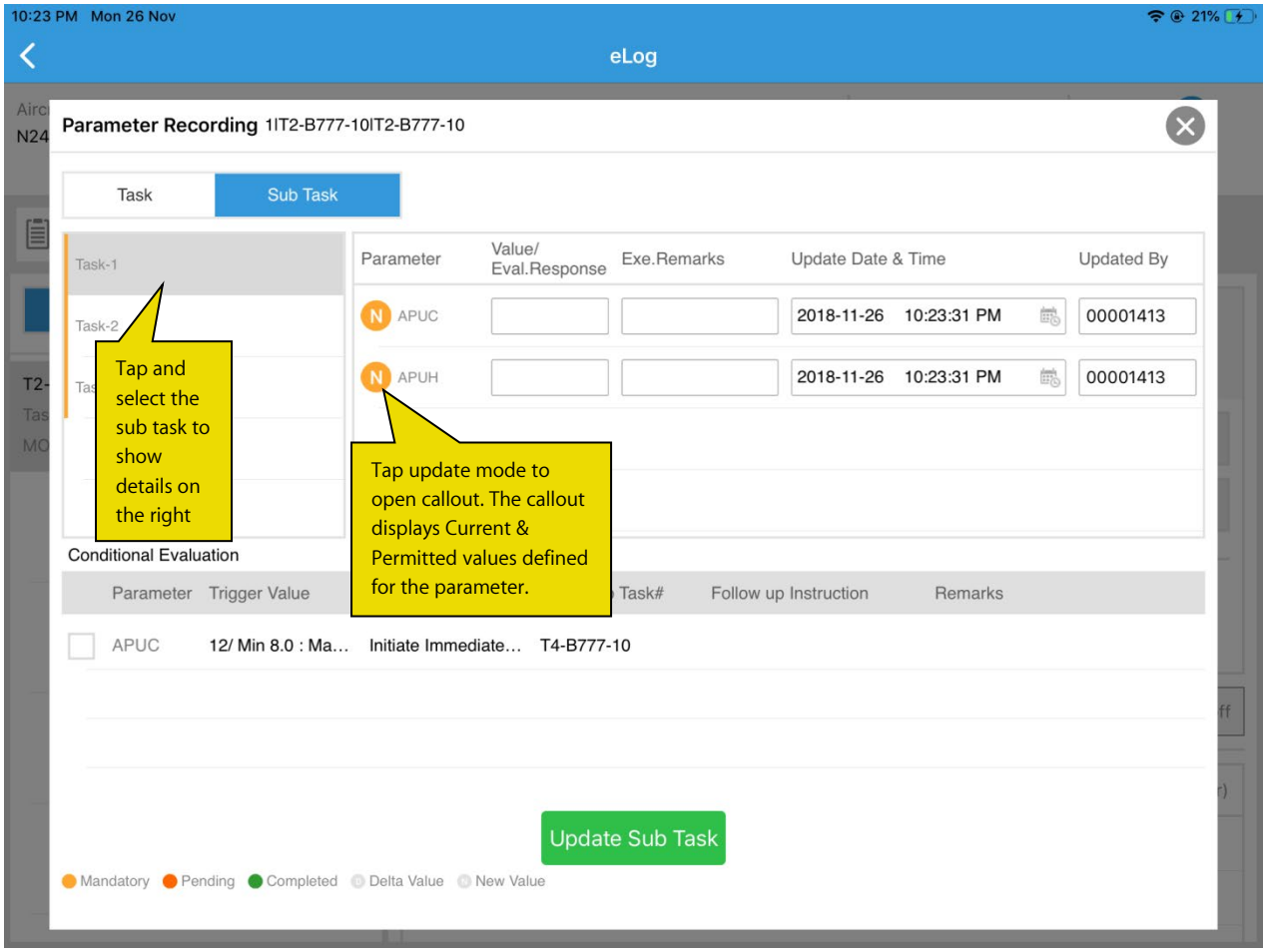
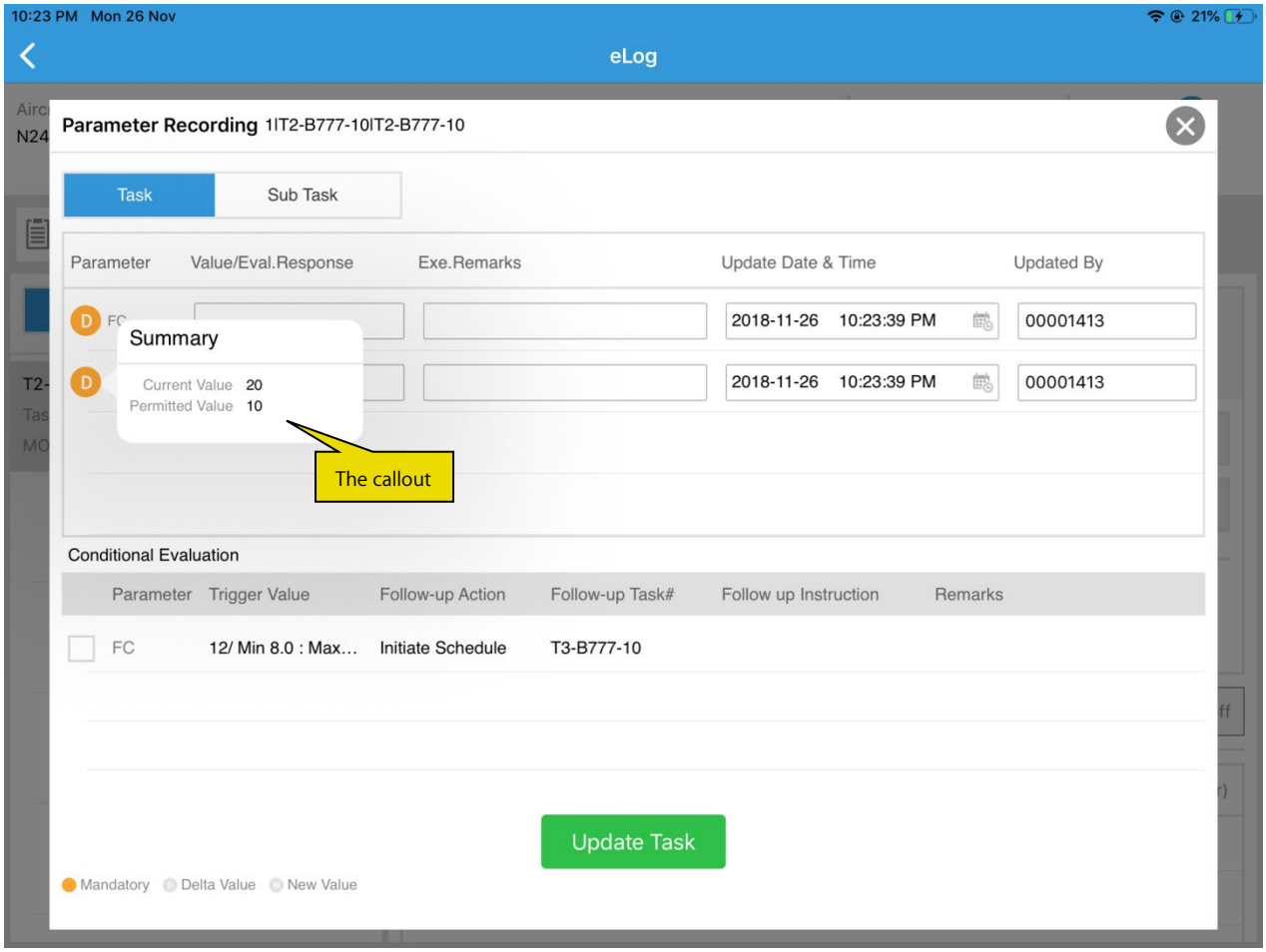


Exhibit 4: The **Callout**



Ability to retrieve Packages in Planned status in LineAnywhere from Online application

Reference: APRP-747

Background

Typically, the aircraft involved in tourism or special operations such as firefighting, log lifting, etc. visit/halt for several days in remote locations where internet connectivity is poor or almost nil. In such a scenario, aircraft mechanics can make use of the pause time to perform/track maintenance activities planned earlier in the online mode. Currently, the LineAnywhere mobile application supports creation of work packages in offline mode for maintenance execution. However, a provision to enable offline users to load packages created in the online desktop Ramco Aviation system to the iPad device to be able to execute packages earlier planned in the desktop **Ramco Aviation** system must also be built in the system.

Change Details

In order to facilitate the offline mode execution of packages that were earlier planned in the online mode, the following features have been incorporated in LineAnywehre:

- New **Load Package** button has been added in the four tabs of **Load Device** screen of **LineAnywhere** to enable loading of packages created in the online **Ramco Aviation** suite from all the tabs:
    - All Assigned
    - Assigned to Me
    - All Inbound
    - Manual
- The **Load Package** button appears only if aircraft have been successfully loaded to the offline device against the Load Ref #.
- On tap of **Load Package** button, the **Load Device** appears with two tabs: **All Package** and **My Package**.
- The first and the default tab **All Package** displays the list of work packages which were earlier created / planned in the online application against all the loaded aircraft.
- The users can select the packages in the **All Package** tab and then tap the **Refine Package** button to load the planned packages to the offline device. The users can then traverse to the **My Package** tab to view the packages that have been successfully loaded to the offline device and can now be executed by the login user
- On successful loading of the package to the device, the system sets the 'Mode of Usage' flag as 'Offline' for the packages loaded into the offline database of **LineAnywhere**. The following key data are loaded into the device:
    - Package Info
    - Task Info

- Discrepancy Info
- Component Replacement Info (Restoration CR, Saved CR)
- Part Requirements of Task and Discrepancies
- Task Parameter Info
- Sign Off Requirements

- The users can tap the **Clear Device** button to delete the **Load Ref #** & all associated data captured against the **Load Ref #** from the device
- On tap of the loaded package in the **My package** tab in the **Load Device** page, the users are automatically transported to the **Manage Package** tab of the **E-Log** screen
- The system marks the package as Offline once a package is loaded into offline device (i-pad) and makes the package unavailable in any other offline device. Further, such offline packages cannot be executed by the users in the following screens of the online Ramco Aviation suite:
  - Record Aircraft Maintenance Execution Details
  - Work Reporting Hub
  - Parts Hub
  - Manage Work Assignments and Reporting
  - Record Part Consumption and Return
  - MechanicAnywhere
- Once the work package execution is complete, the mechanic can transfer the package to the online database of the desktop Ramco Aviation system using the **Transfer Work Package** activity in offline LineAnywhere application. On validation of the package in this activity, the 'Mode of Usage' flag is set to 'Online' thus allowing the package to be processed further in the desktop application.

Mandatory conditions for loading packages to LineAnywhere: However, the system will list / allow packages to be loaded from the online system to the offline device only if the following conditions are satisfied:

- The status of the packages against the loaded aircraft must be 'Planned'
- The work center for execution of the planned package must be associated to the station pre-defined for the offline device
- No material requests must be available against the packages
- None of the tasks in the package must be in the Hold status
- The process parameter 'Allowed for offline operations?' under the entity type Package Type and the entity Log Card, User Defined values in the **Define Process Entities** activity of **Common Master** must be set as Yes / 1. However, the system does not allow loading of planned packages from the online system to the offline device, if the process parameter is set as No / 0.

Exhibit 1: The **Load Device screen** in **LineAnywhere**

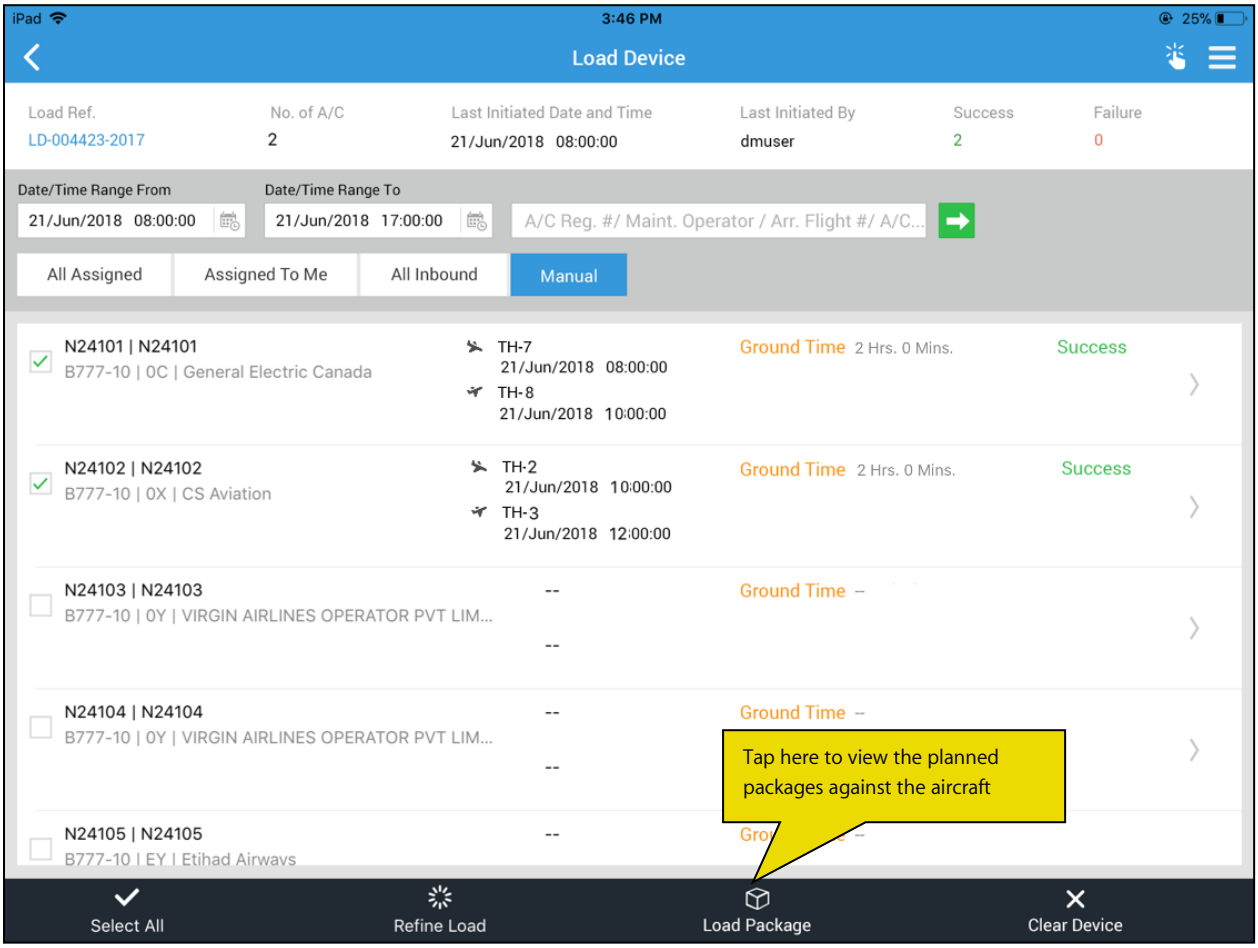


Exhibit 2: The **Load Device** page with the package list

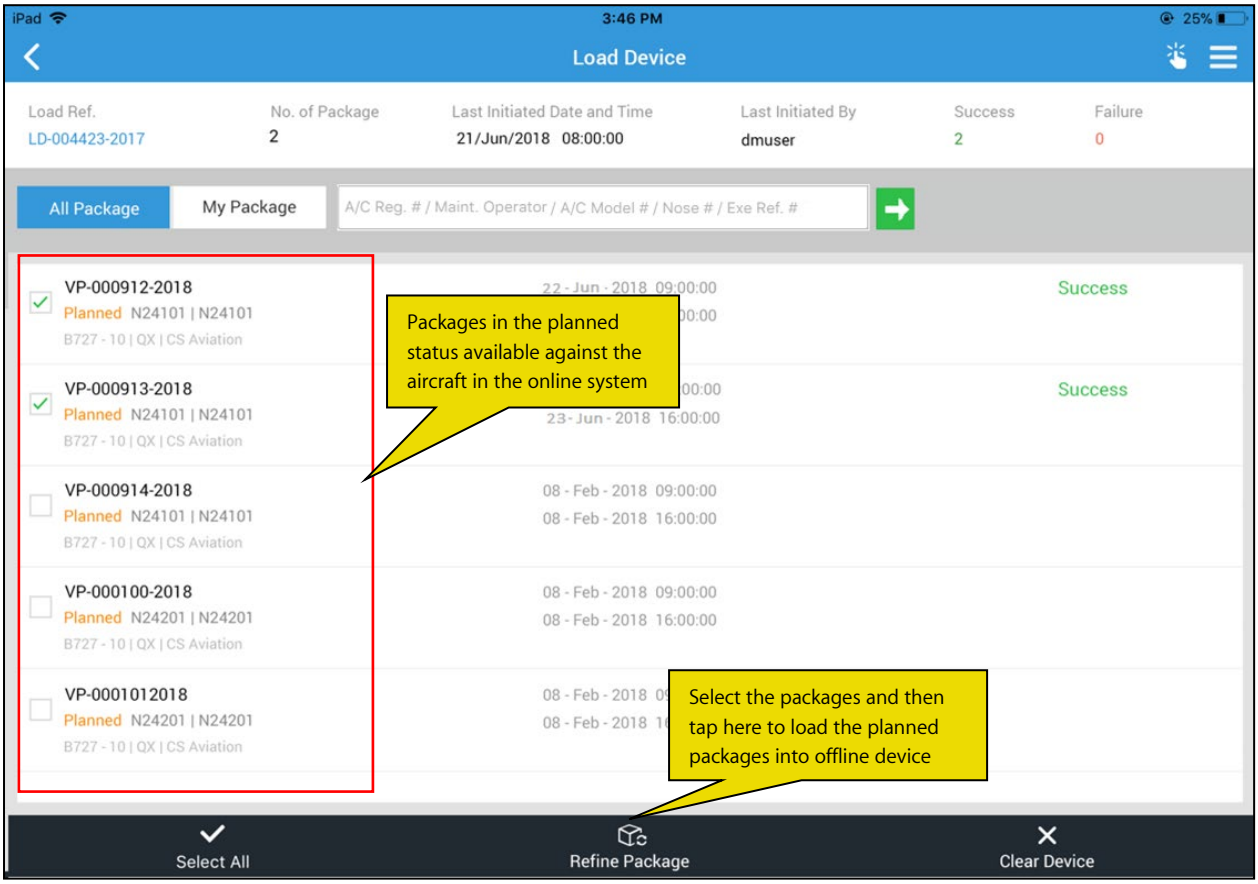
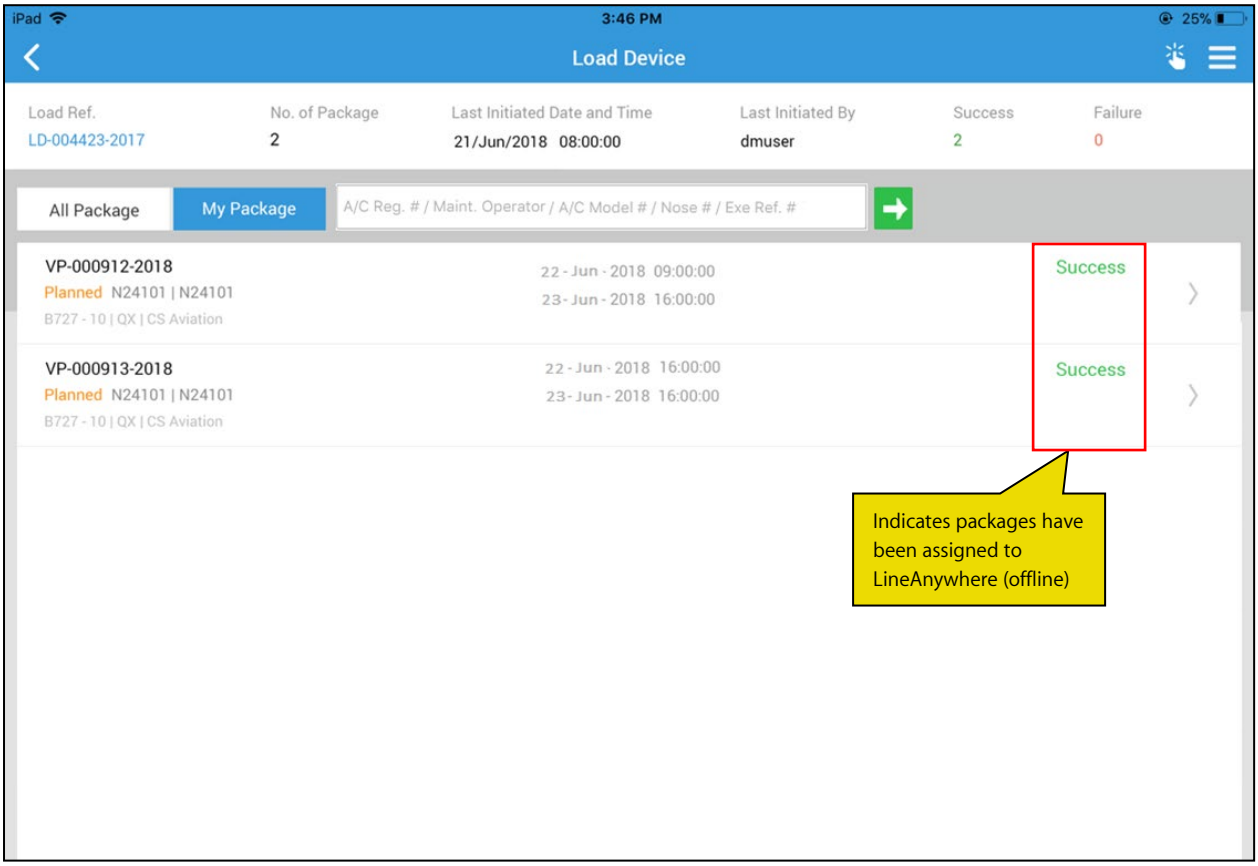


Exhibit 3: The **Load Device** page with associated package list



Ability to Inquire the Stock Availability in LineAnywhere

Reference: APRP-745

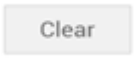
Background

The **LineAnywhere** offline mobile application facilitates mechanics to perform aircraft maintenance in remote areas that are not connected to the world by means of internet. In such areas, warehouses are maintained in trucks and the mechanics request for parts from these trucks for component replacements. These trucks are effectively warehouses with storage mechanisms similar to the online warehouses of the desktop **Ramco Aviation** suite. Hence, the offline mechanics must be empowered to inquire availability of parts in these truck warehouses essential for the execution of maintenance tasks.

Change Details

In order to facilitate aircraft mechanics to query stock availability offline, the following developments have been built in the **LineAnywhere** application:

- New screen **Stock Inquiry** added to the left pane
- The **Stock Inquiry** screen when invoked from the left pane comprises of a **Simple** search, an **Advance** search and the **Part List** (Search Results) section.
- The users can search and retrieve parts based on Part # and Mfr. Serial # / Lot # in the **Simple** search. The Part # filter in the Simple search is enabled with Smart Search. The users can tap  to retrieve the parts available against the Serv. Request warehouses of the Default Work Center set in the **Set Preferences and Load Device** screens.
- Additionally, the **Advance search** offers various storage attributes as criteria for more precise and rapid retrieval of part availability information. To display parts available against various storage attributes that match the search criteria, the users can tap on the 

button. Tapping on the 

button will clear the user input in the search fields and paves the way for the users to enter new search criteria. The **Advance search** criteria by default remains collapsed. The users can expand the section by tapping on the down arrow. The users can now search and find stock levels of parts on the basis of warehouse attributes (Warehouse #, Zone #, Bib # and Stock Status) and Storage attributes (Mfr. Serial/Lot #, Condition, Trading Partner Type and Trading Partner #)
- For parts matching the Simple / Advance search criteria in the **Stock Inquiry** screen, the **Part List Details** section displays the available quantity of the part in the specified warehouse or the Serv. Request warehouse of the default work center defined in the **Save Preferences** & **Load Device** screens
- New icon  to launch the **Stock Inquiry** screen has been added in the **Component Replacement** screen and the **View Part Requirements** popup to show the available quantities of the parts. However, the **Stock Inquiry** screen launched from the **Component Replacement** screen and the **View Part Requirements** popup does not offer the **Simple** search option. The page on launch displays the stock availability for the part in context. For further search, the users can specify the **Advance s**earch criteria

- New process parameter 'Load warehouse stock information on pre-load of device?' has been added under the entity type Mobility and the entity LineAnywhere in the **Define Process Entities** activity of **Common Master** to allow the loading of warehouse stock information on to the **LineAnywhere** offline database at the time of preloading the **LineAnywhere** device.

Process Parameter: Load warehouse stock information on pre-load of device?	
Process Parameter Value	**Impact**
1 for Yes	• The following data is copied to the offline database (built by Load Scheduler) from the Serviceable Request warehouse of the default work center set in the **Set Preferences and Load Device popup** screen - Warehouse #, Zone #, Bin # - Part # - Part Description - Serial #/ Mfr. Serial # - Lot #/ Mfr. Lot # - Available Qty. - Stock Status - Condition - Expiry Date - Trading Partner Type & Trading Partner #/ Name • The  icon displays in the **Component Replacement** screen and the **View Part Requirements** popup
No for 0	• The system does not copy stock details into offline tables from the Serviceable Request warehouse at the time of loading the device in LineAnywhere. As a consequence, the  icon will not be available in the **Component Replacement** screen and the **View Part Requirements** popup

Exhibit 1: The **Dashboard** screen in **LineAnywhere**

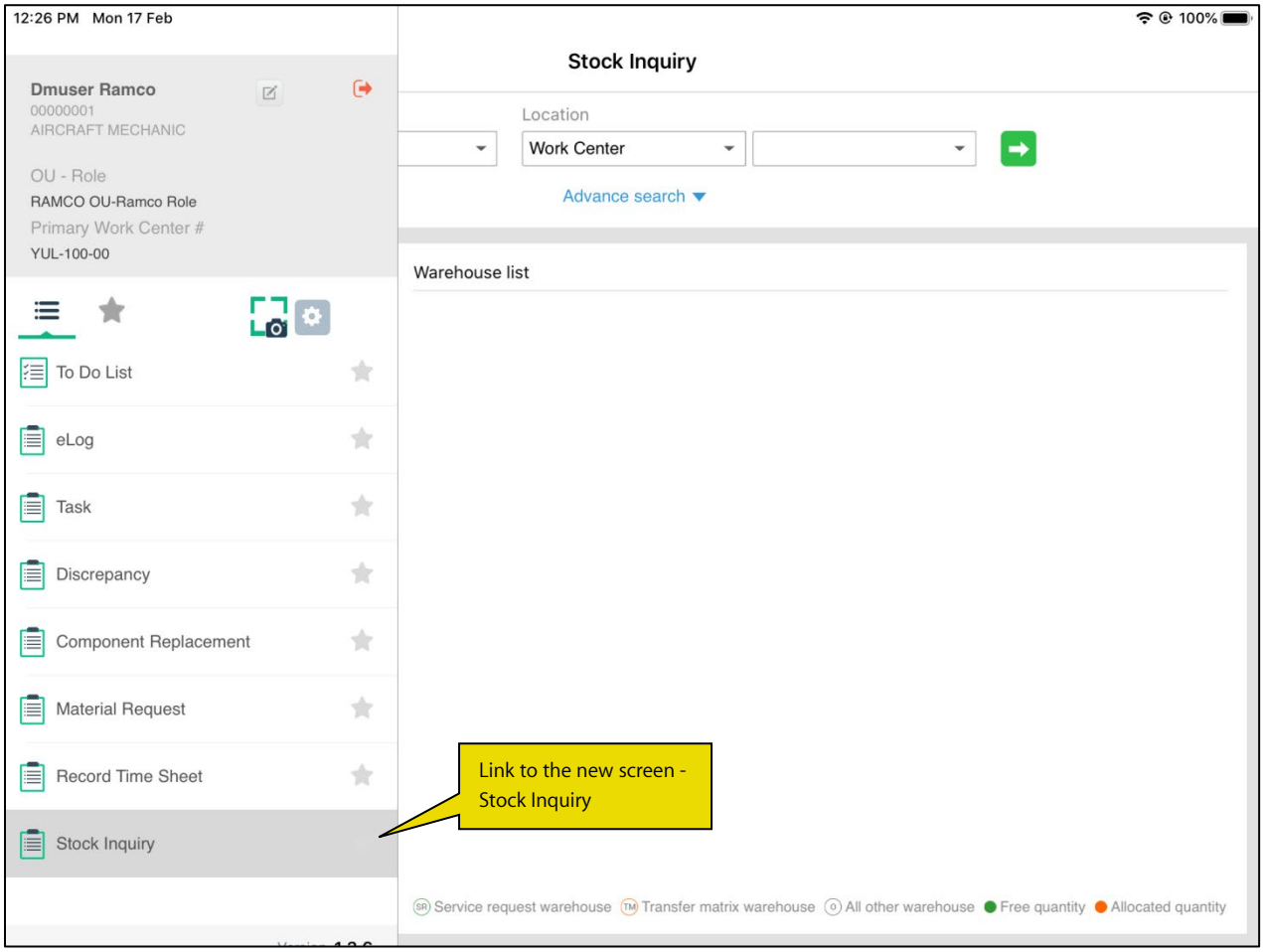


Exhibit 2: The **Stock Inquiry** screen invoked from the left pane of **LineAnywhere**

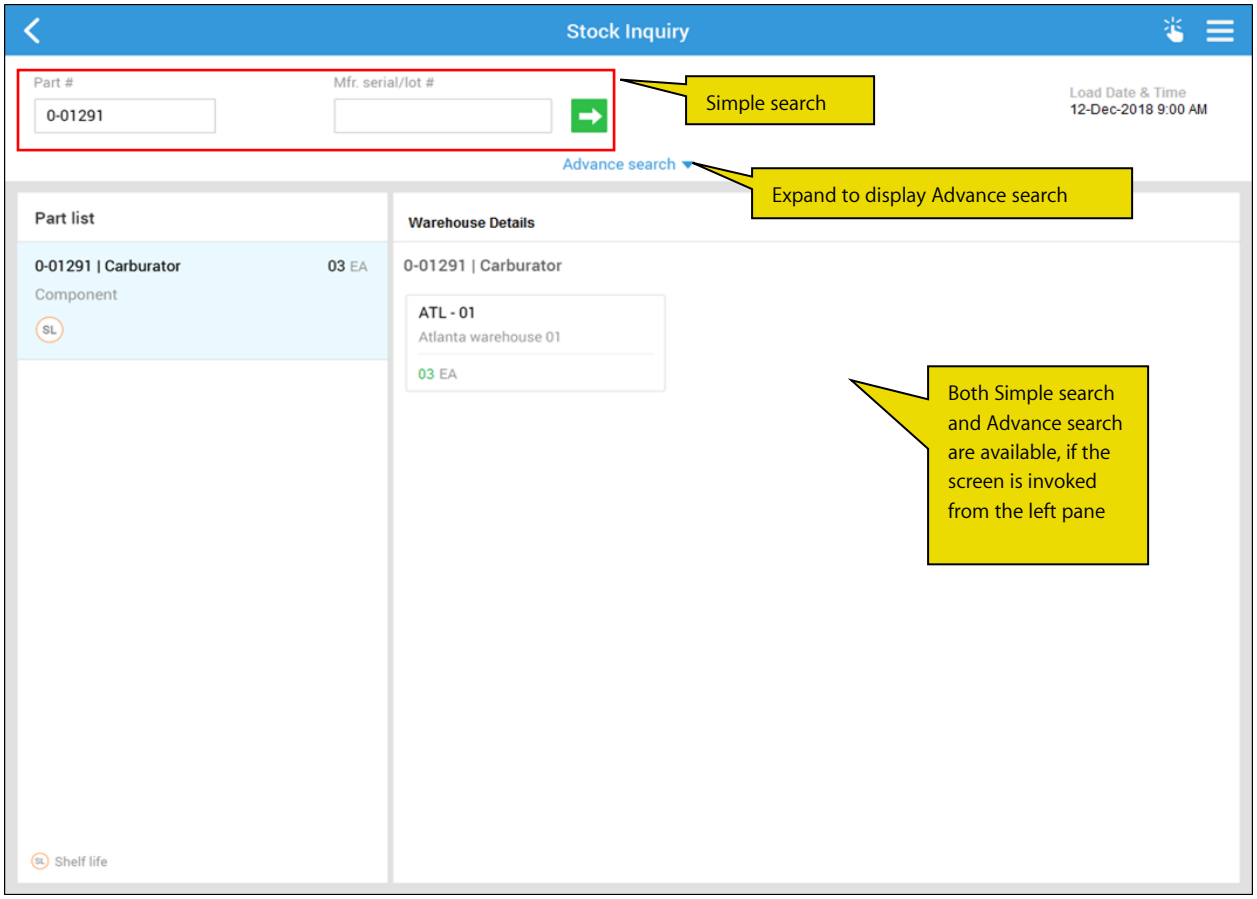


Exhibit 3: The **Stock Inquiry** screen invoked from the left pane of **LineAnywhere** with expanded **Advance** search

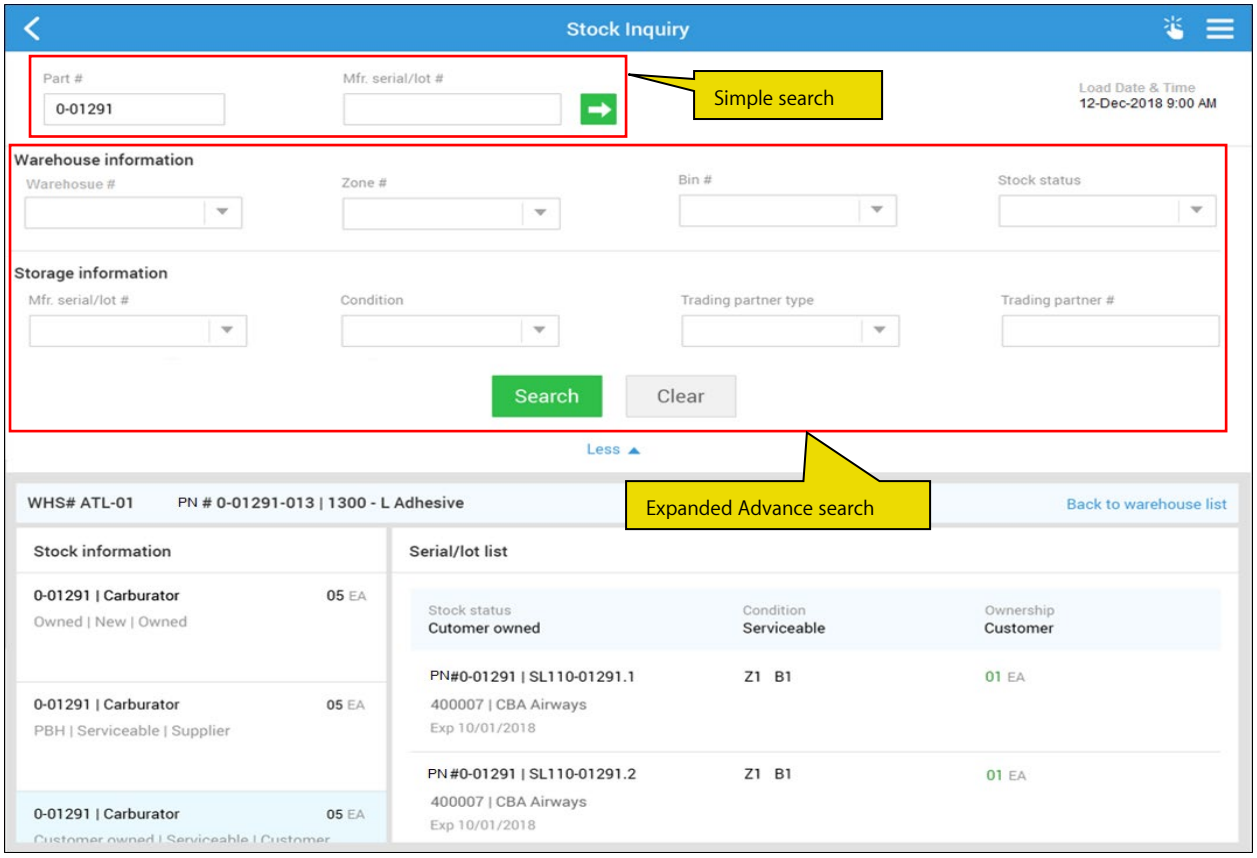


Exhibit 4: The link to the **Stock Inquiry** screen from the **Component Replacements** screen

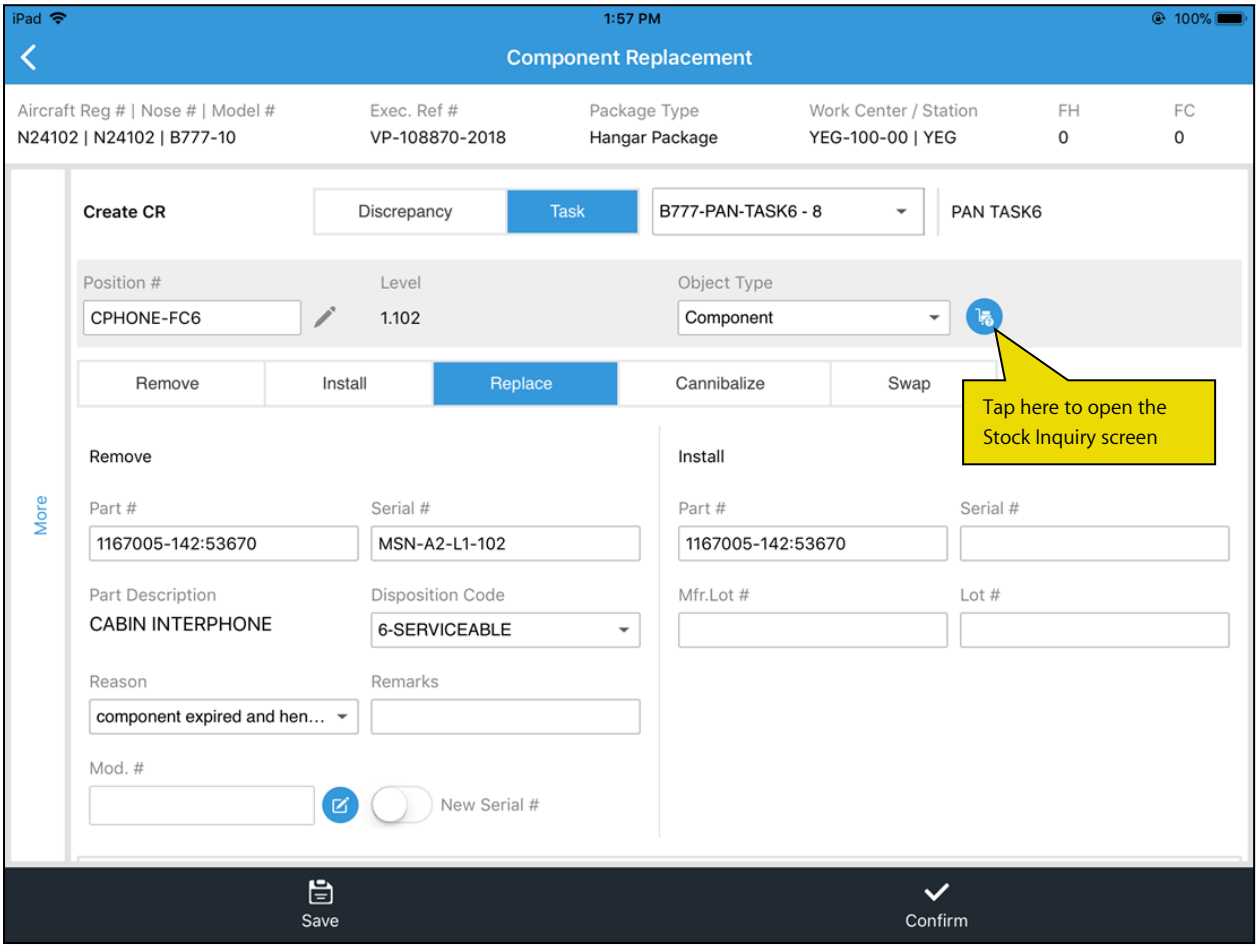


Exhibit 5: The link to the **Stock Inquiry** screen from the **View Parts Requirements** screen

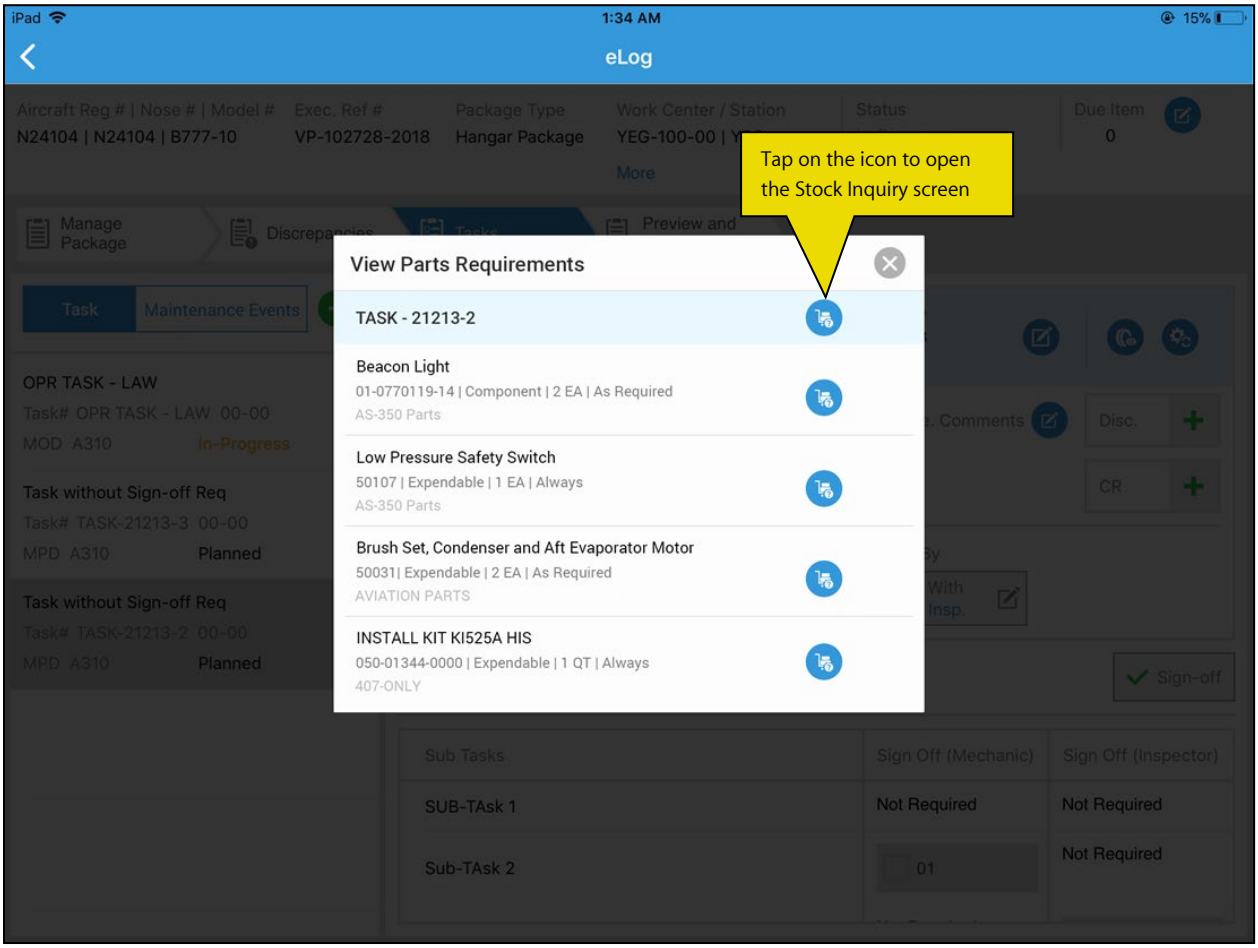


Exhibit 5: The **Stock Inquiry** screen invoked from the **Component Replacements** and **View Parts Requirements** screens

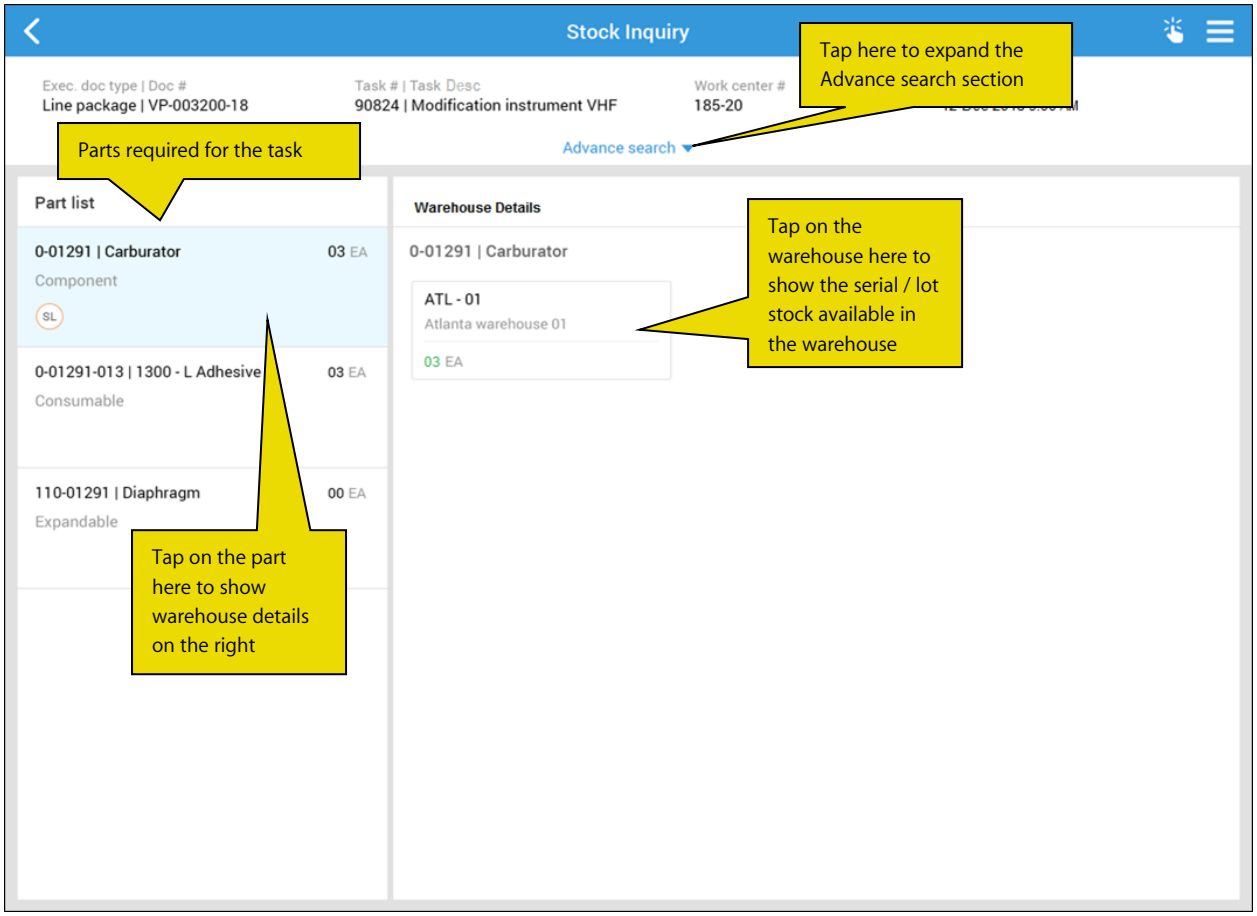


Exhibit 6: Stock availability in the warehouse

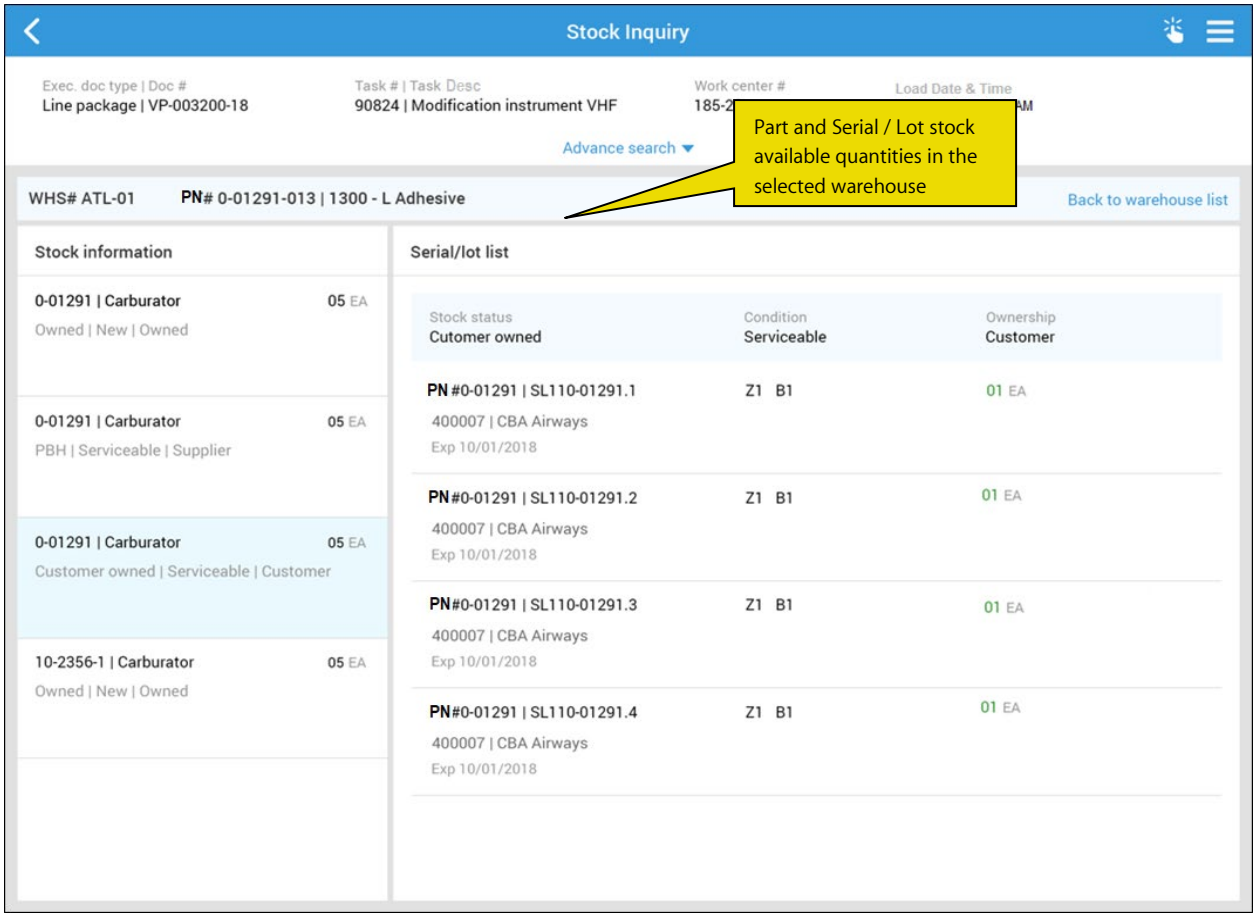
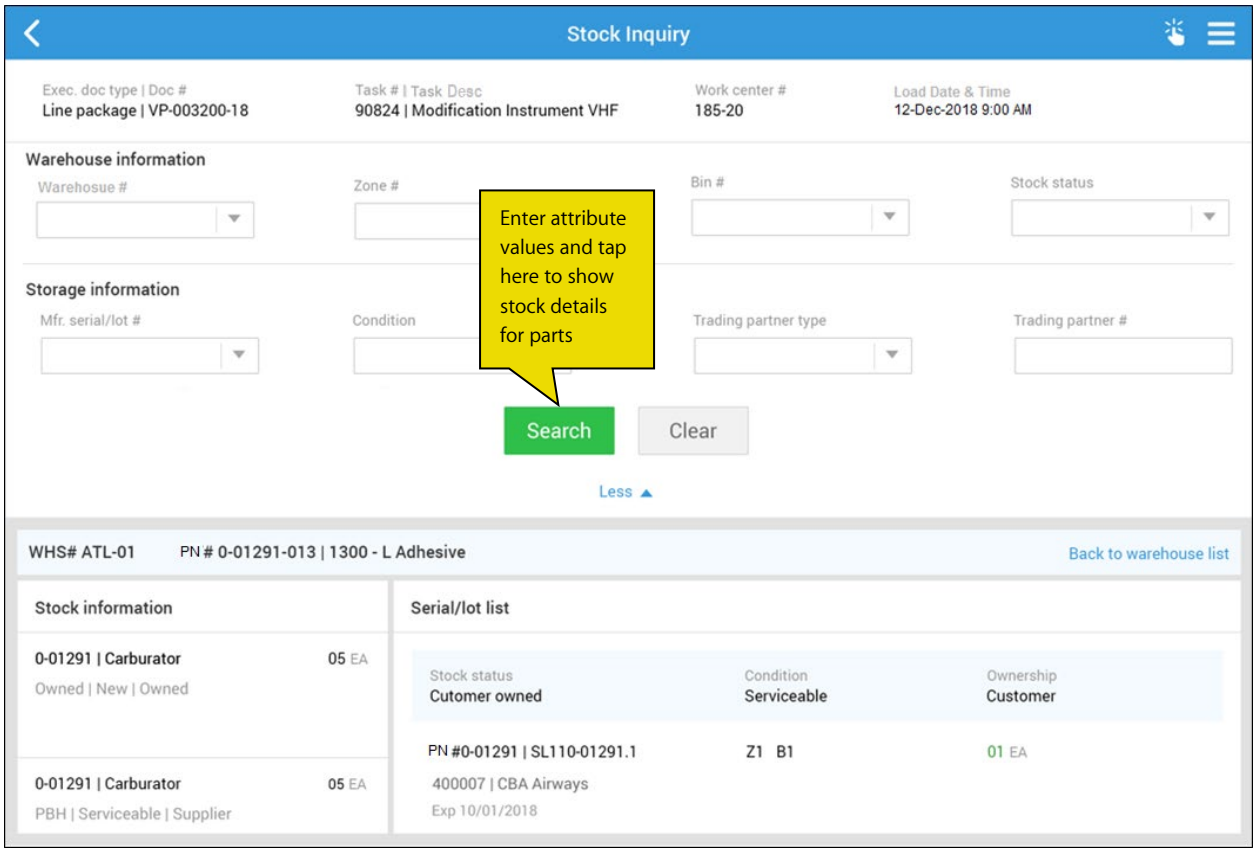


Exhibit 7: The expanded **Advance** search section in the **Stock Inquiry** screen invoked from the **Component Replacements** and **View Parts Requirements** screens



Ability to generate CoM # during transfer of packages from Line Anywhere

Reference: APRP-748

Background

In aircraft maintenance scenario, the Lead mechanics/ supervisors review the maintenance activities performed on aircraft and perform CRS sign-off against packages. The capability to generate Certificate of Release to Service with unique CoM # must be built in the offline mobile device of LineAnywhere in order to track packages completion.

Change Details

To enable the generation of CoM # in LineAnywhere, the following developments have been built into the system:

- New process parameter 'Default CoM Type for CRS in eLog?' under the entity type Mobility and entity LineAnywhere has been added in the Define Process Entities activity of Common Master to set the default CoM Type of Certificate of Maintenance generated for packages during transfer in LineAnywhere.

Process Parameter: Default CoM Type for CRS in eLog?	
Value	**Impact CoM Type**
0	The CoM Type field is set to 'Regular', on generation of CoM for packages during transfer from LineAnywhere
1	The CoM Type field is set to 'Test Flight', on generation of CoM for packages during transfer from LineAnywhere
2	The CoM Type field is set to 'Forced', on generation of CoM for packages during transfer from LineAnywhere

- If the users do not specify the default CoM Type of packages, the system sets CoM Type for error-free package to "Regular".
- On validation of the packages, if any (Task / Discrepancy / CR) errors are found in the package at the time of transfer; Transfer Status for the package is set as "Error-Transfer". Similarly, if any errors related to CoM generation are encountered against the package, Transfer Status is set as "Error-CoM". Transfer Status becomes "Error-Closure", if any errors related to closure of the package are found at the time of closure.
- The system will generate CoM # document in "Confirmed" status upon processing the package under the following conditions:
  - Package is complete
  - CoM Reqd? set as Required
  - Numbering type defined for CoM # generation
  - No overdue maintenance tasks/discrepancies found
  - No errors found

Exhibit 1: CRS sign off in LineAnywhere

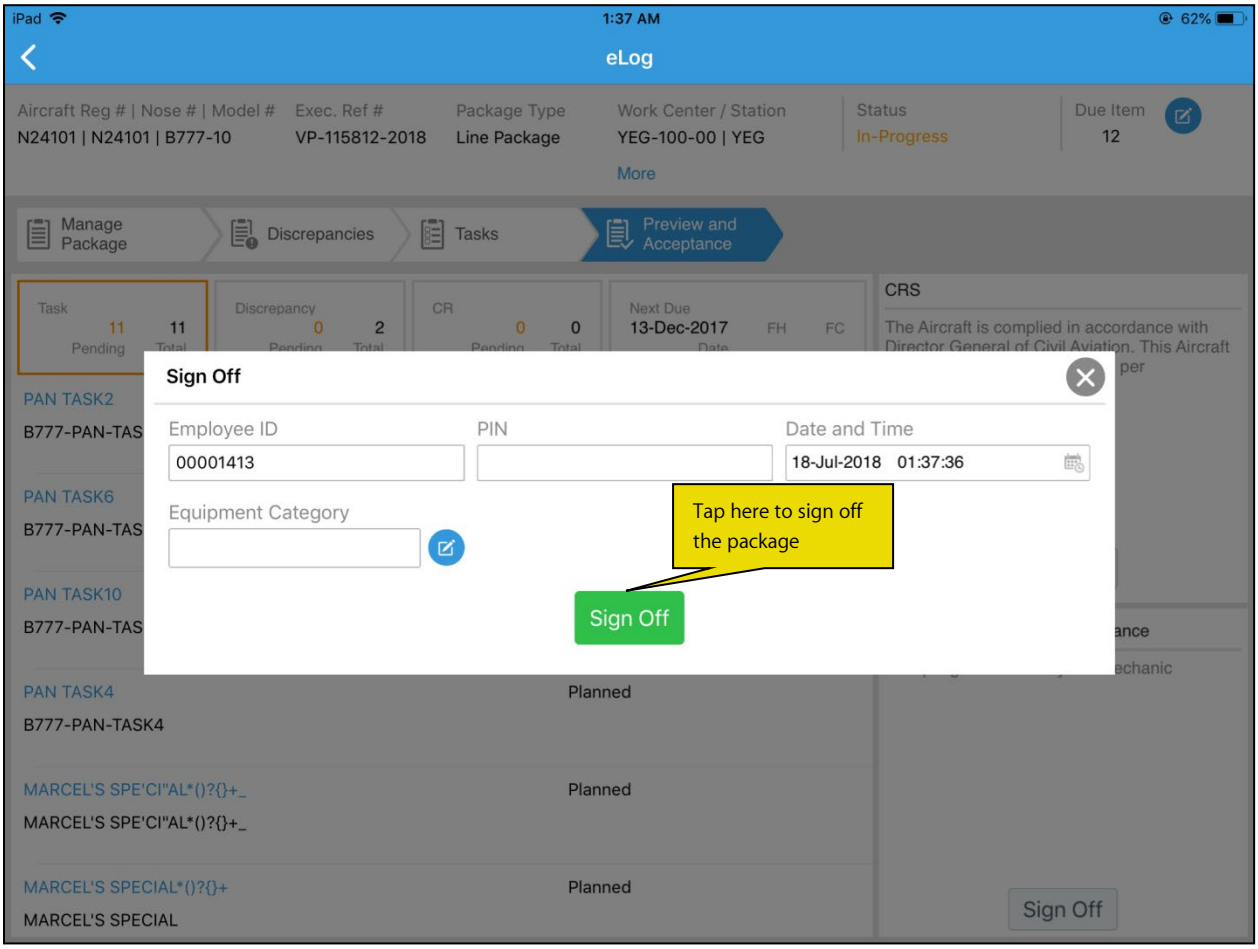
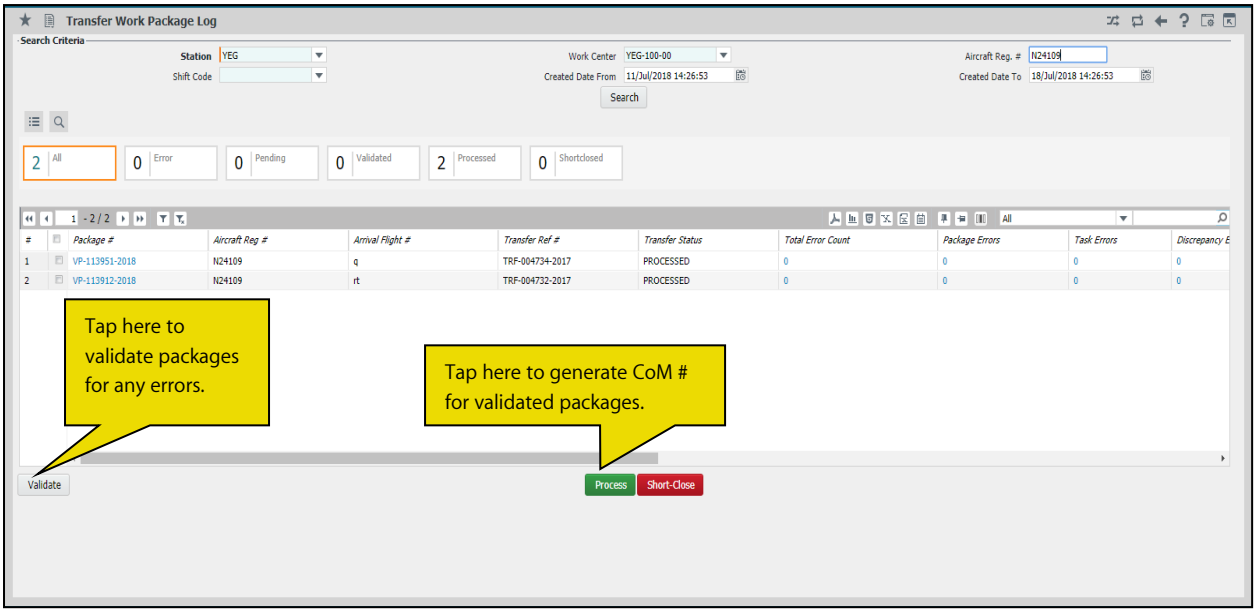


Exhibit 2: The Transfer Work package Log screen in LineAnywhere



Ability to load due items of sub-assemblies & task relationship in Line Anywhere App

Reference: APRP-746

Background

For comprehensive maintenance of aircraft, it is essential the mechanics must have the complete list of due items of the aircraft in hand. Currently, LineAnywhere provides the capability to load due tasks of aircraft only. However, mechanics in the remote locations where internet connectivity is poor or nil must be empowered to review the due list of sub-assemblies to perform On-wing, Off-wing and component removal jobs. **LineAnywhere** must also support the addition of the component tasks Further, when tasks are added to work packages, LineAnywhere must also be capable of automatically adding related tasks based on the planning and execution relationships of the added tasks.

In addition to the ability of assigning the Component and Engine tasks to packages, a capability to validate and process errors associated with Component and Engine tasks in packages transferred from the offline device must also be built in the **LineAnywhere (Desktop)** business component.

Change Details

To facilitate addition of the Component and Engine tasks in the offline mobile device, the following developments have been incorporated in **LineAnywhere**:

- New process parameter 'Retrieve Component/Engine applicable task during Pre-load of LineAnywhere?' has been added under the entity type Mobility and the entity LineAnywhere in the **Define Process Entities** activity of **Common Master** to load Component and Engine applicable tasks in addition to Aircraft tasks to the offline mobile **LineAnywhere** application

Process parameter	Value	Impact
Retrieve Component/Engine applicable task during Pre-load of LineAnywhere?	0 / Not Required	Only Aircraft Applicability tasks will be copied to the LineAnywhere database during pre-load. Maintenance tasks with Applicability as Component and Engine will not be copied to the LineAnywhere database during pre-load
	1 / Required	Maintenance tasks with Applicability as Component and Engine will not be copied to the LineAnywhere database in addition to Aircraft Applicability database

- New process parameter 'Retrieve Task Relationship details of Task during Load of LineAnywhere?' has been added under the entity type Mobility and the entity LineAnywhere in the **Define Process Entities** activity of **Common Master** to load task relationship definition to the offline mobile LineAnywhere application

Process parameter	Value	Impact
Retrieve Task Relationship details of Task during Load of LineAnywhere?	0 / Not Required	LineAnywhere will not load the 'Task Relationships' defined for Aircraft /Component/Engine applicable tasks
	1 / Required	LineAnywhere will load the 'Task Relationships' defined for

		Aircraft /Component/Engine applicable tasks

- New process parameter 'Show 'Job Type' combo in **Add Tasks** pop up of LineAnywhere?' has been added under the entity type Mobility and the entity LineAnywhere in the **Define Process Entities** activity of **Common Master** to add the drop down list box **Job Type** in the **Add Tasks** popup of the **LineAnywhere**

Process parameter	Value	Impact on the Job Type drop-down list box in the 'Add from Library' and 'New Task' tabs of Add Tasks pop up
Show 'Job Type' combo in Add Tasks pop up of LineAnywhere?	0 / No	The Job Type drop-down list will not be displayed to users.
	1 / Yes	The Job Type drop-down list will be displayed to users.

- The **Add Tasks** popup will have the following new fields to facilitate creation and addition of tasks of Component and Engine Applicability in addition to Aircraft.
    - Job Type (This filter will be available based on process parameter Show 'Job Type' combo in Add Tasks pop up of LineAnywhere?)
    - Part #: (This field will be enabled with Smart Search.)
    - Serial #
    - Position Code: (This field will be enabled with Smart Search.)
- **The Task Additional Info** pop-up with the following fields will also be displayed for Component or Engine tasks now
    - Job Type
    - Part #: (This field is enabled with Smart Search)
    - Serial #
    - Position Code: (This field is enabled with Smart Search)
- When the users add a task to the work package from Due List or from the Add Tasks pop up, **LineAnywhere** automatically adds the related tasks based on the following relationships:
    - Block Schedule
    - Concurrent Exec. – Group,
    - Concurrent Exec- Specific
    - Concurrent Exec.- Conditional
    - Predecessor-Constrained
- If the tasks are having the following Post Compliance relationship, the system will update the schedules of the respective tasks in the maintenance program, during the transfer of work package.
    - Initiate Schedule
    - Terminate Schedule
    - Initiate Records Follow-Up
    - Supersede
    - Conditional

Exhibit 1: The new **Task** section in the **Add Tasks** popup in the **Tasks** tab of **E-Log**

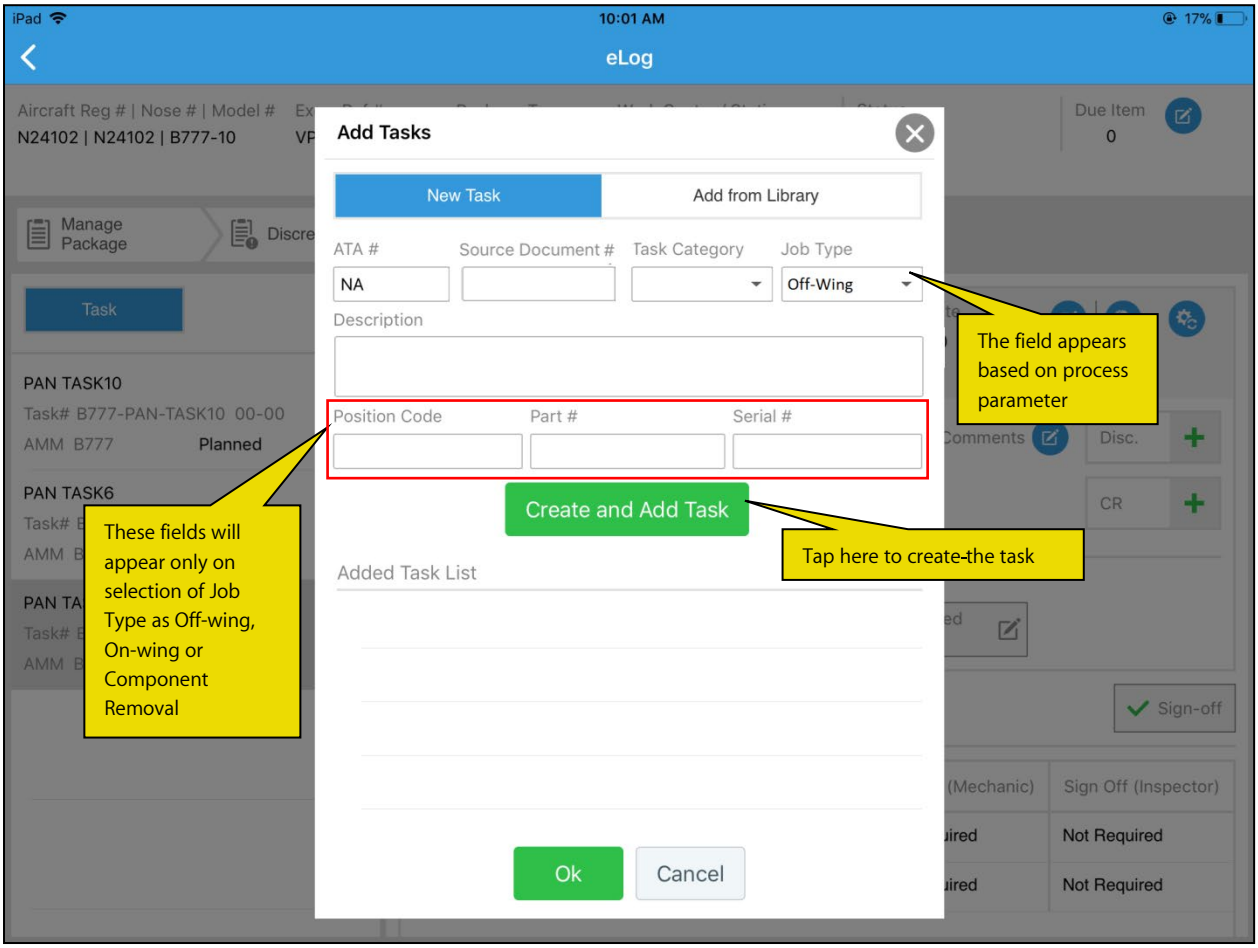


Exhibit 2: The **Add from Library** section in the **Add Tasks** popup in the **Tasks** tab of **E-Log**

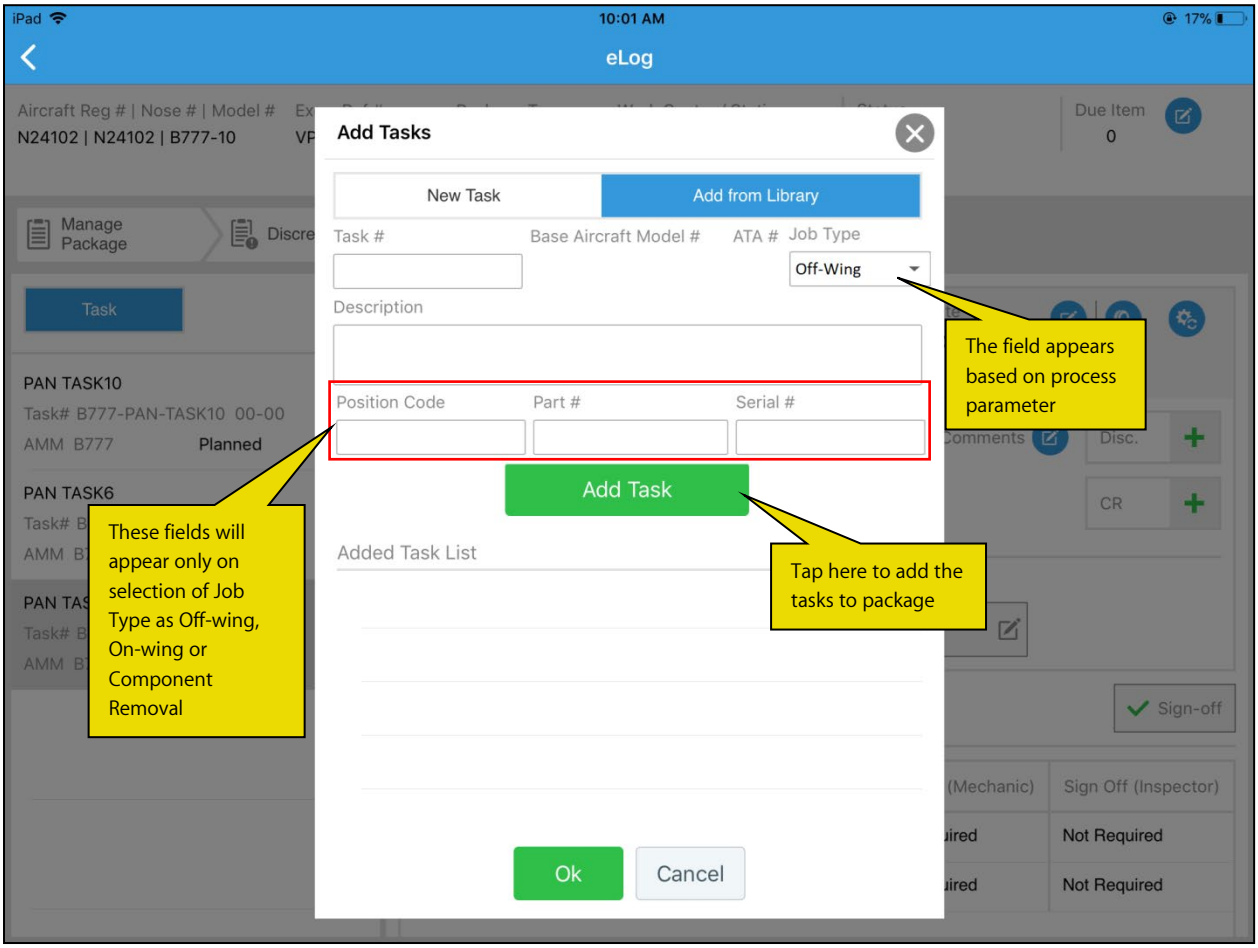
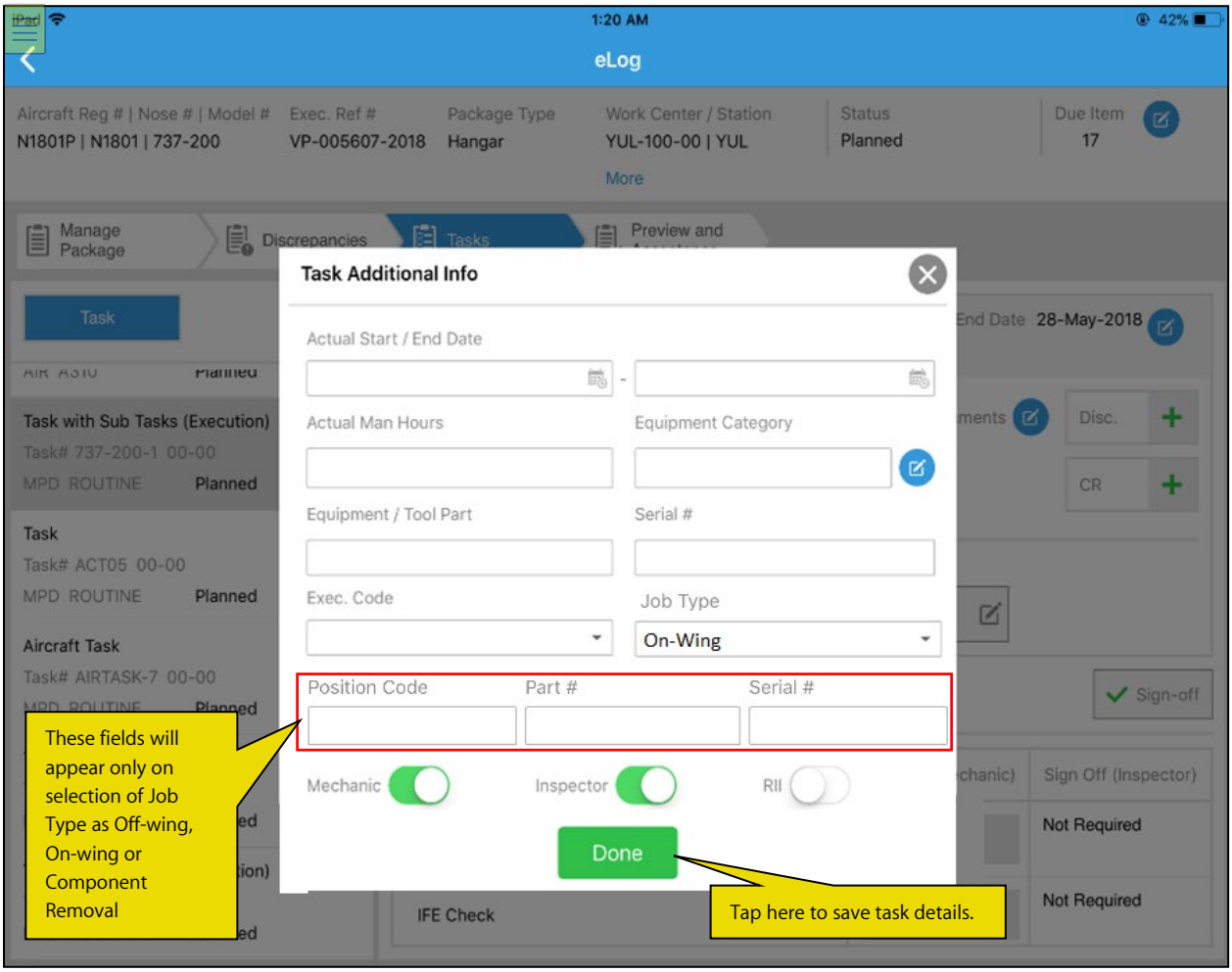


Exhibit 3: The **Task Additional Info** popup in the **Tasks** tab of **E-Log**



Ability to view the due dates of the tasks which are already available in the package

Reference: APRP-406

Background

A task/discrepancy in **Due List** popup of **LineAnywhere** shows Due By which makes it easier for a user to know the due of the respective task/discrepancy before adding to a package. Currently if a task/discrepancy is added from Due List to a package, then it is not possible to view the due date of that task/discrepancy. Due date is only visible once the task/discrepancy is cancelled, and the task/discrepancy goes back to the due list. In case where the access time / ground time is less, the mechanic will not be able to identify which needs to be prioritized.
Therefore, a provision is required wherein users can view the due date of the task/discrepancy, which is already added to a respective package, directly in the **eLog** screen during execution in **LineAnywhere**.

Change Details

In order to view the due date of a task/discrepancy which is already added to a package, the following changes have been incorporated in the **eLog** screen of **Line Anywhere**:

- Due date of the added task to be shown as separate control in the task list in the left pane of eLog under **Task tab**.
- Due date of the added discrepancy to be shown as separate control in the discrepancy list in the left pane under **Discrepancy tab**.
- If there's no due date available for a task/discrepancy, then 'No Due' will be shown for that task/discrepancy in the task/discrepancy list in the left pane of eLog under Task/Discrepancy tabs respectively.

Colour codes for displaying due dates:

- Red: Due date will be shown in Red for task/discrepancy having the due date crossed as per current date.
- Amber: Due date will be shown in Amber for task/discrepancy based on the set option - *Number of remaining days to be considered to mark an item as an Alert Due Item?,* by considering the days set in the set option and the current day as well.
- Black: Due date will be shown in Black for task/discrepancy having the due date which is neither crossed the current date nor is nearing.
- Grey: Due date will be shown in Grey for all tasks/discrepancies in status other than 'Planned' and 'In-Progress'.

> *Note: If there's no due for a task/discrepancy, it will be shown as No Due in grey italics form.*

Exhibit 1: Identifies the changes in **Task tab** of **eLog** screen in **Line Anywhere**

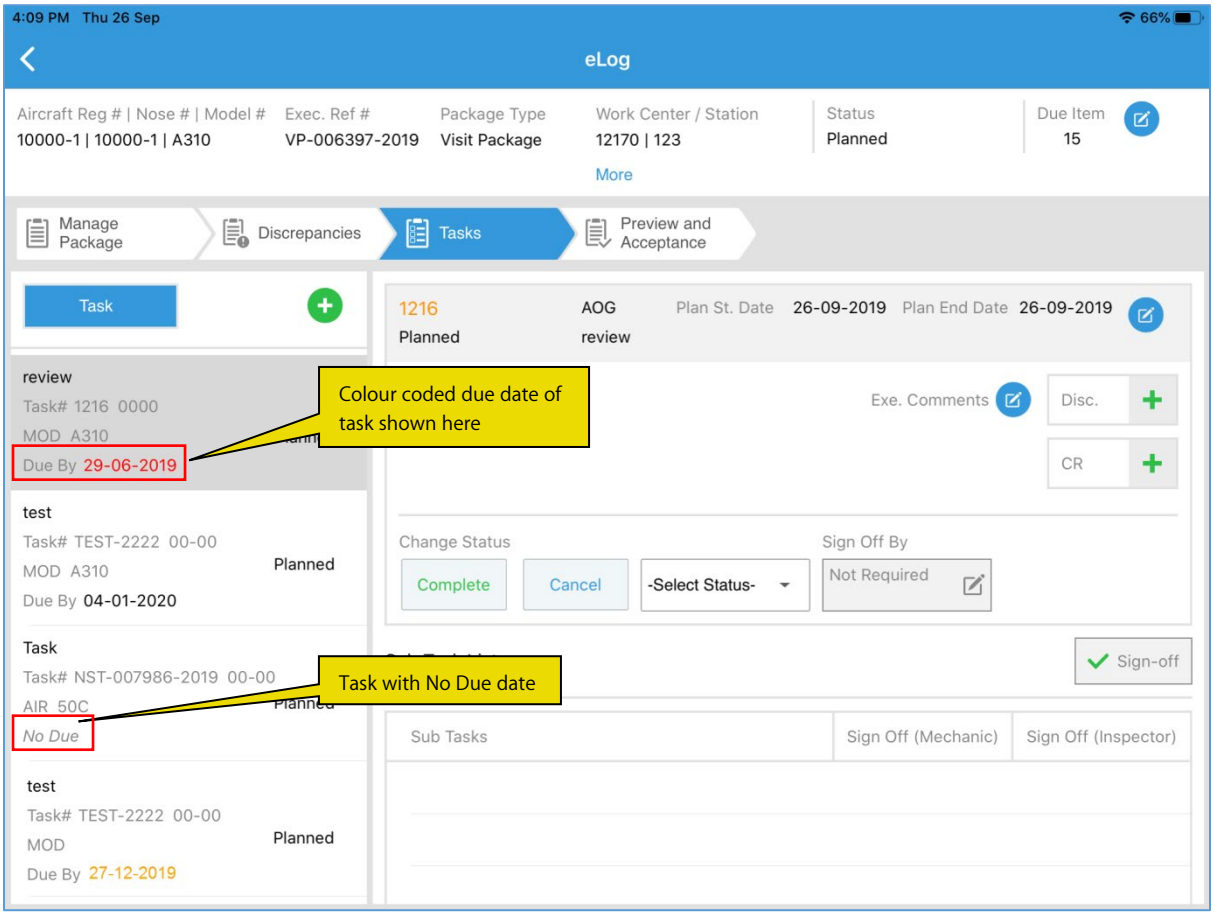
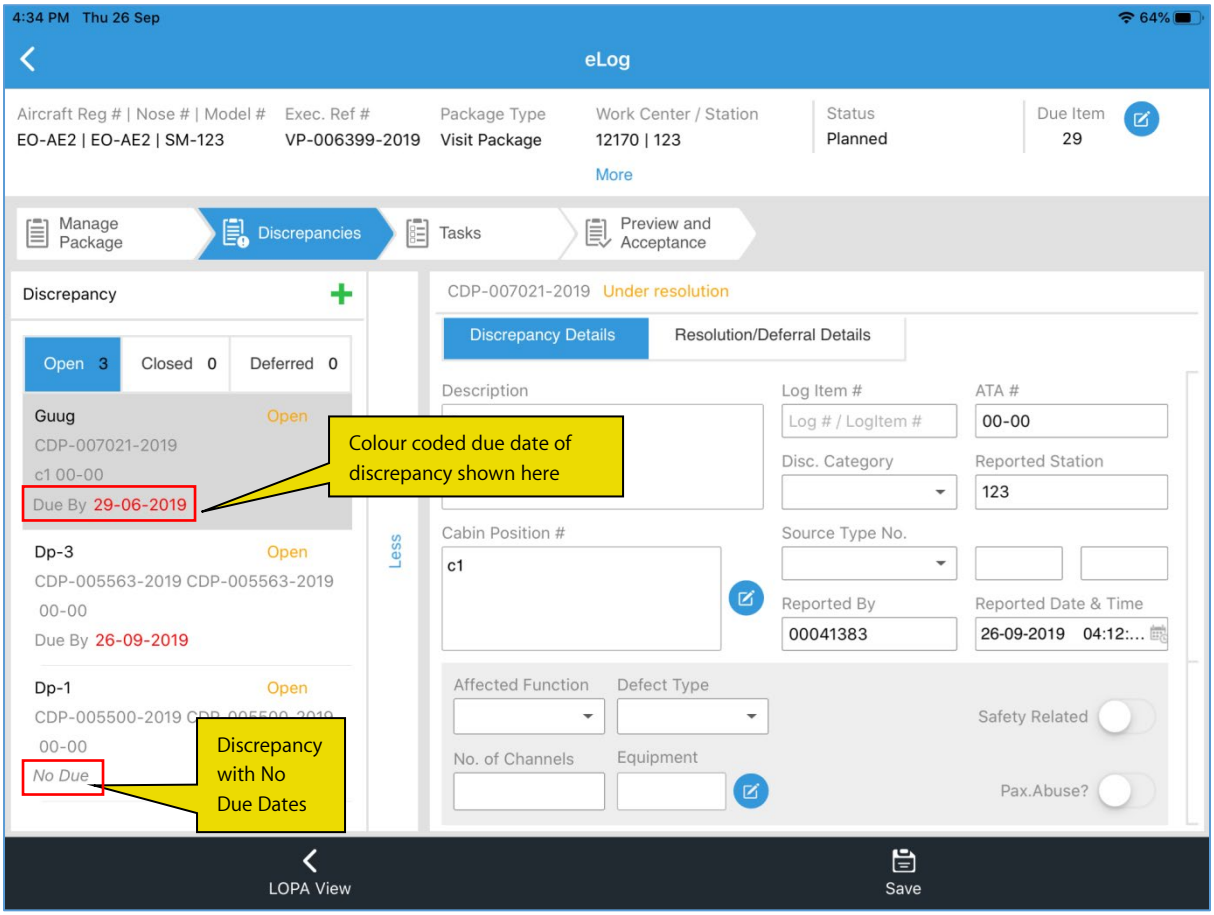


Exhibit 2: Identifies the changes in **Discrepancy tab** of **eLog** screen in **Line Anywhere**



Ability to view planning priority and comments for discrepancy

Reference: APRP-405

Background

In **LineAnywhere**, the mechanics can view the priority and comments for tasks as recorded by the planners at the time of creating packages in the desktop **Ramco Aviation** suite. However, the priority and comments provided for discrepancies at the time of assigning them to packages is currently not available in the **LineAnywhere** offline mobile application. Priority and comments provide critical data that could be used by the mechanics in enhancing maintenance execution and hence a provision to display these details for discrepancies is required in **LineAnywhere**.

Change Details

To provide visibility to the priority and comments recorded for discrepancies at the time of adding discrepancies to packages, the following developments have been built in **LineAnywhere**:

- During Pre-Load and Refine Load actions for aircraft in the **Set Preferences and Load Device** screen, **Priority** and **Comments** of the **Due** discrepancies as recorded in **Review Fleet Maintenance Plan** screen by the planner will be loaded from desktop to **LineAnywhere.**
- New display fields – **Priority** and **Comments** have been added in the **Discrepancies** tab of **eLog**. However, the **Priority** and **Comments** fields will be available for a discrepancy only if these fields have been updated previously in the **Review Fleet Maintenance Plan** screen of **Aircraft Maintenance Planning** in desktop **Ramco Aviation** suite.
- The user can tap on the **Comments** field to expand the field and view the complete text. To close the popup, the users can tap outside the popup area.
- The label **Discrepancy** in the header has been removed from the **Discrepancies** tab

Exhibit 1: Updating **Priority** and **Comments** from the **Review Fleet Maintenance Plan** page for discrepancy

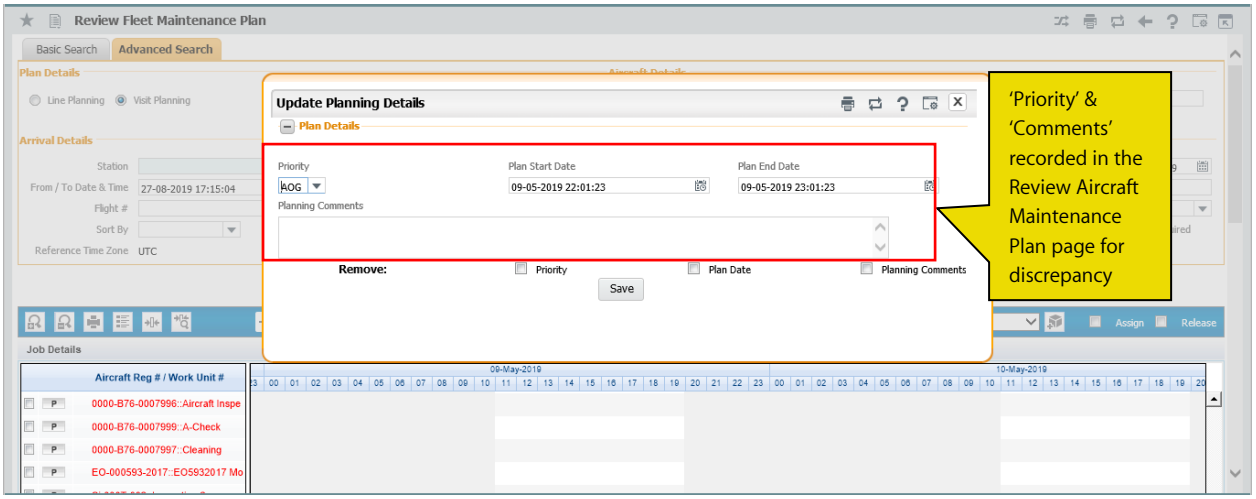
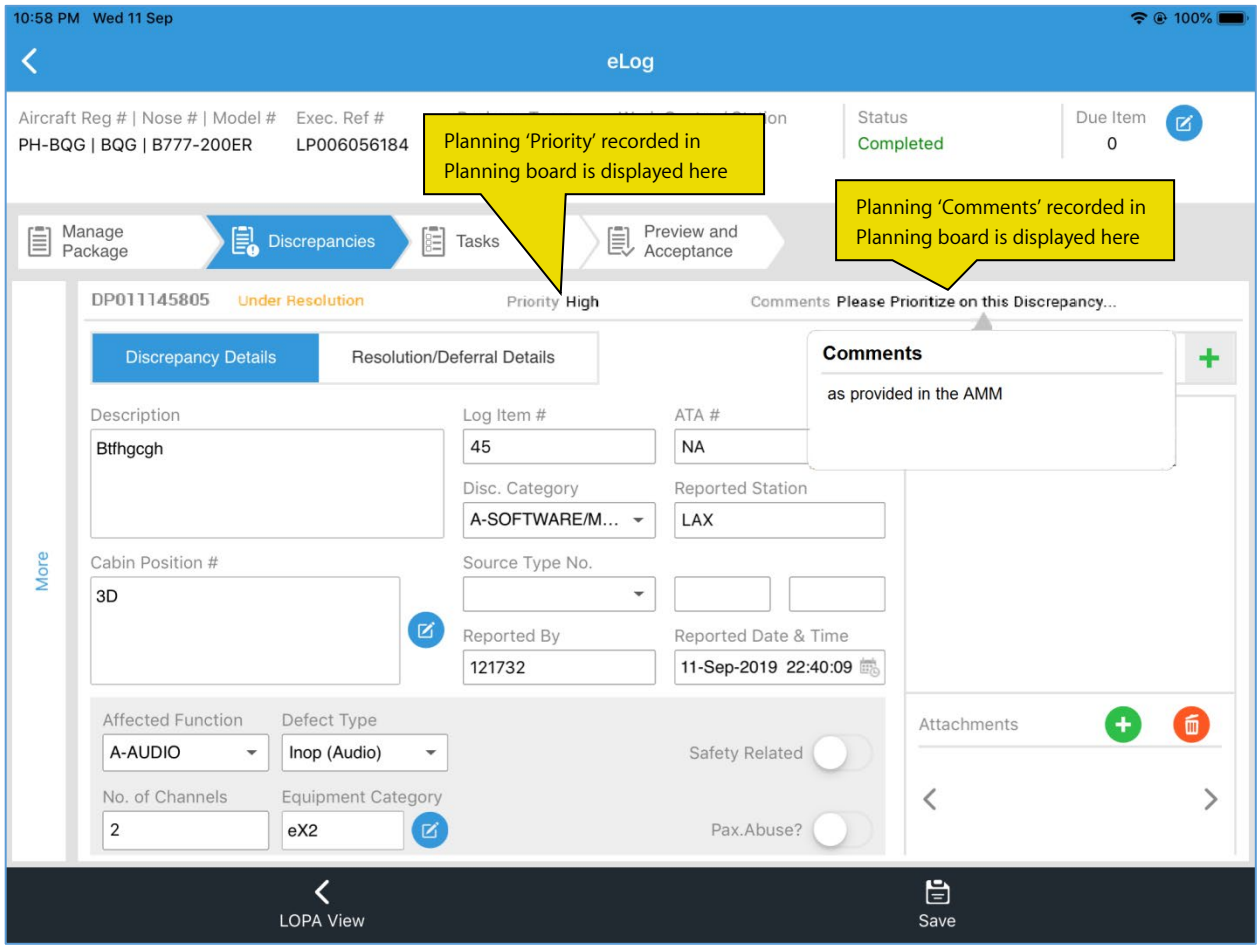


Exhibit 2: Priority and **Comments** in the **eLog** – **Discrepancies** tab of **LineAnywhere**



Ability to cancel a pending CR transaction in LineAnywhere

Reference: APRP-403

Background

In **LineAnywhere**, duplicate instances of the component transactions (CR) find their way into bulk component transactions (CR) processing giving rise to errors. These errors crop up during transfer of packages back to desktop stopping the transfer process. Rectification of these errors proves tedious for the users as they are required to redo the bulk CR transaction process after manually removing the duplicate records. Hence, a provision to cancel the duplicate pending CR records before they are confirmed is required in **LineAnywhere.**

Change Details

To prevent multiple instances of the same CR getting processed during bulk CR processing, the following new developments have been built in the LineAnywhere offline mobile application:

- New button – **Cancel** has been added to the right of of the **Confirm** button in the both **Create CR** and **Edit / View CR** mode of the **Component Replacement** screen in **eLog.**
- Now the users can remove pending CR transactions by tapping on the **Cancel** button. (Note: Pending CR transactions refer to saved CR transactions that still have not been confirmed and hence do not carry CR #.). Once a CR transaction is cancelled, the screen refreshes to show the **Create CR** mode of **Component Replacement** wherein the user can perform a new CR transaction.
- During creation of a CR or if a CR transaction is confirmed, the **Cancel** button appears in a disabled state.
- Cancelled CR transactions will not be displayed under the CR list in the **Component Replacement** screen. They will also not be included in the total CR count in the **Preview and Acceptance** tab.
- If any pending CR remains during transfer, the validation message will notify the cancellation or confirmation of the pending CR transaction.

Exhibit 1: The **Create CR** mode of **Component Replacement** screen

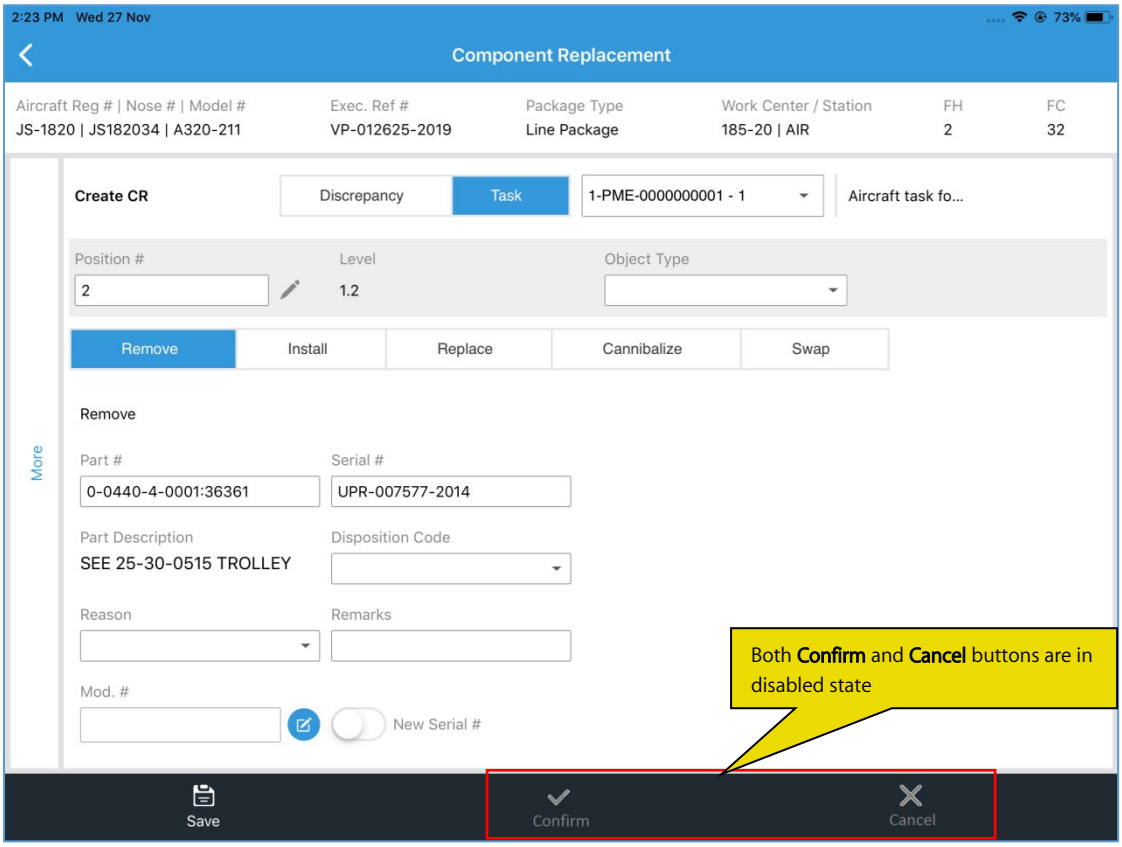


Exhibit 2: The Component Replacement screen after the CR is saved

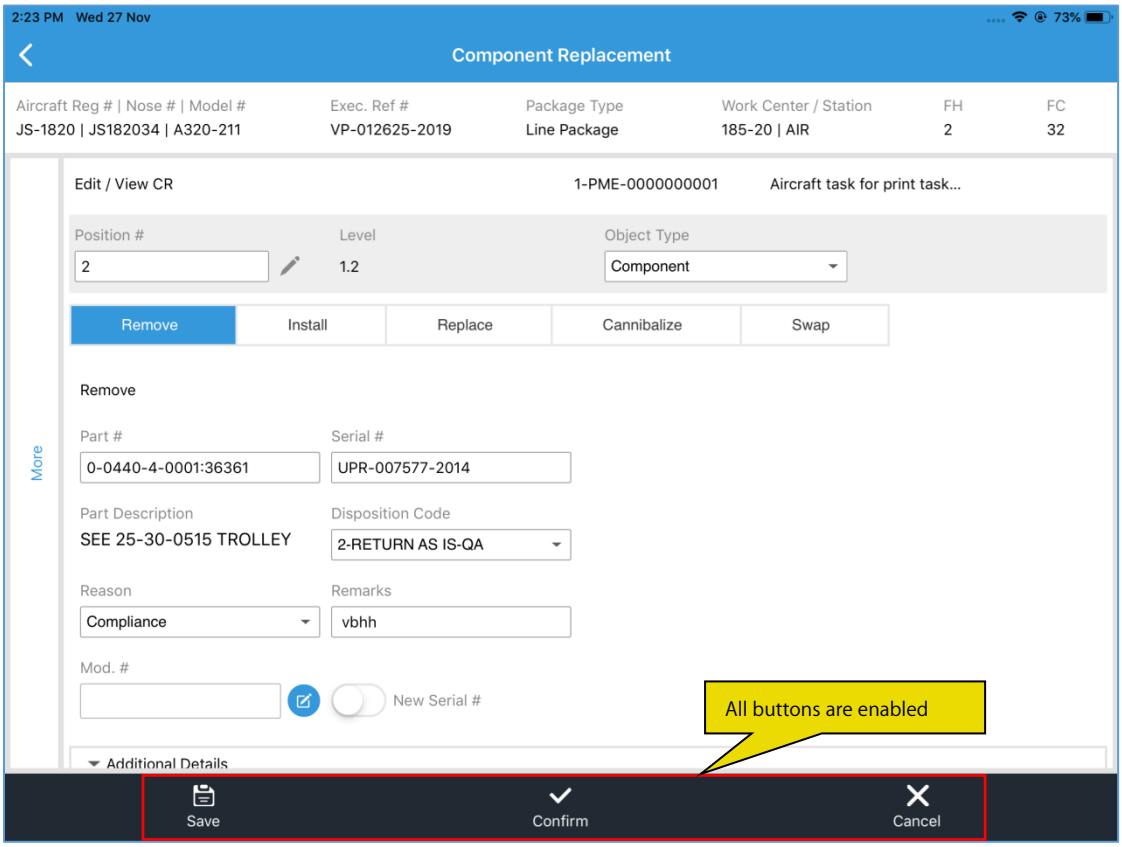


Exhibit 3: The **Component Replacement** screen after CR cancellation

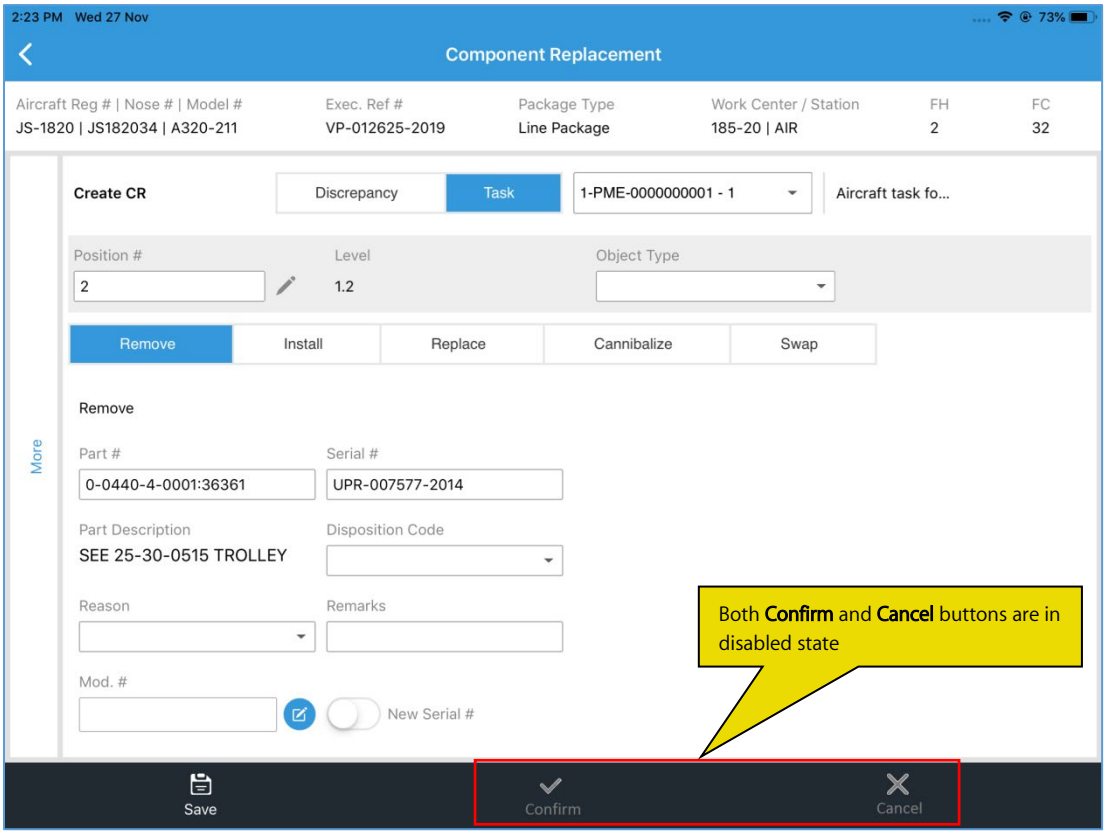
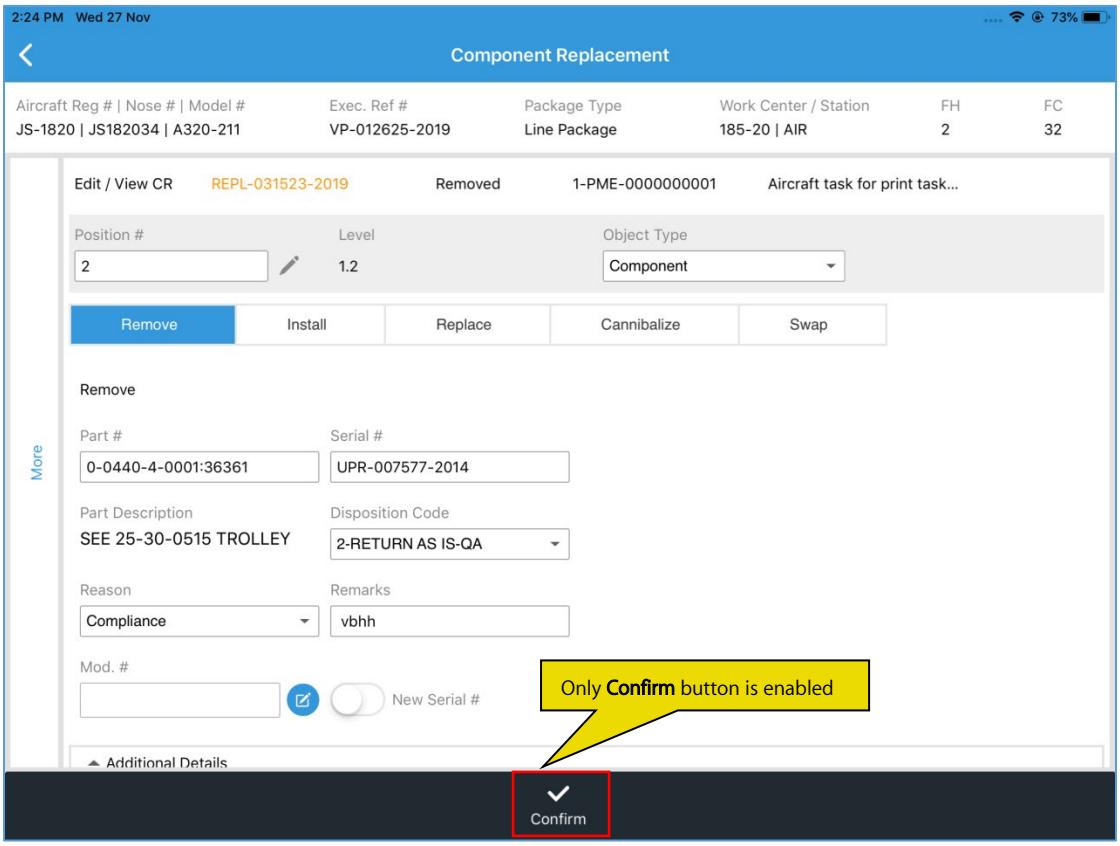


Exhibit 4: The **Component Replacement** screen for a confirmed CR



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