ramco
Aviation Solutions

Line Maintenance

User Guide

Version 5.5

DISCLAIMER

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The documentation has been provided for the entire Aviation solution, although only a part of the entire solution may be deployed at the customer site, in accordance with the license agreement between the customer and Ramco Systems Limited. Therefore, the documentation made available to the customer may refer to features that are not present in the solution purchased / deployed at the customer site.

About this manual

This manual briefly describes the basic processes and functions in Ramco Aviation Solution.

Who Should Read This Manual

This manual is intended for users who are managing the Aviation industry processes and are new to Ramco Aviation Solution.

This manual assumes that the user is familiar with the Aviation Industry nomenclatures and systems based software.

How To Use This Manual

Ramco Aviation Solution provides extensive Online Help that contains detailed instructions on how to use the application. Users are suggested to use this manual for specific references, along with the Online Help. This manual contains enough information to help the users perform the basic tasks and points toward the Online Help for more detailed information.

How This Manual is organized

The User Guide is divided into 5 chapters and index. Given below is a brief run-through of what each chapter consists of.

Chapter 1 provides an overview of the entire **Line Maintenance** business process. The sub processes are explained in the remaining chapters.

Chapter 2 focuses on the **Aircraft Maintenance Execution** sub process.

Chapter 3 focuses on the **Work Monitoring and Control** sub process.

Chapter 4 focuses on the **Discrepancy Processing** sub process.

Chapter 5 focuses on the **Line Planning and Control** sub process.

The **Index** offers a quick reference to selected words used in the manual.

Document Conventions

- The data entry has been explained taking into account the "Create" business activity. Specific references (if any) to any other business activity such as "Modify" and "View" are given as "Note" at the appropriate places.
- **Boldface** is used to denote commands and user interface labels.
  Example: Enter **Company Code** and click the **Get Details** pushbutton.
- *Italics* used for references.
  Example: *See Figure 1.1.*
- The  icon is used for Notes, to convey additional information.

Reference Documentation

This User Guide is part of the documentation set that comes with Ramco Aviation Solution.

The documentation is generally provided in two forms:

- The Documentation CD in Adobe® Systems' Portable Document Format (PDF).
- Context-sensitive Online Help information accessible from the application screens.

Whom To Contact For Queries

Please locate the nearest office for your geographical area from www.ramco.com for assistance.

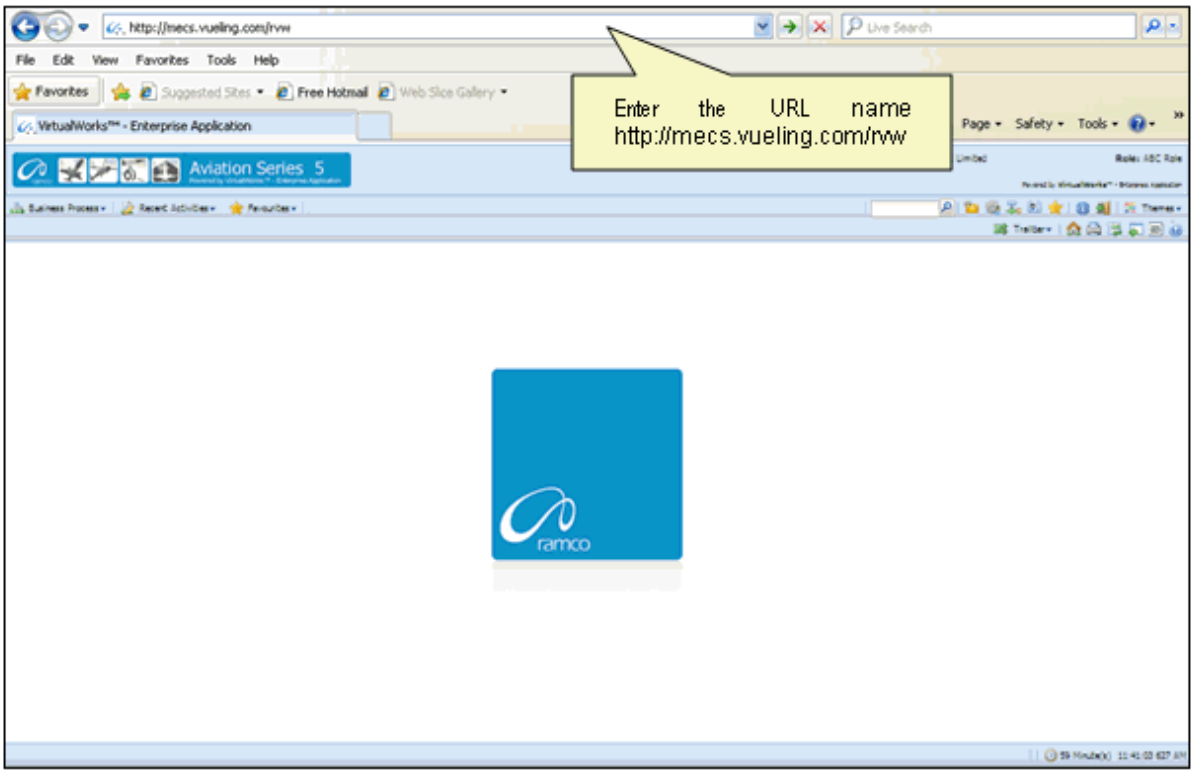
Table of Contents

Using Ramco Aviation Solution

This section explains the basics of using a Ramco Aviation Solution web page. At the end of this section, you will be familiar with the concepts based on which Ramco Aviation Solution works, and also understand how to navigate around Ramco Aviation Solution.

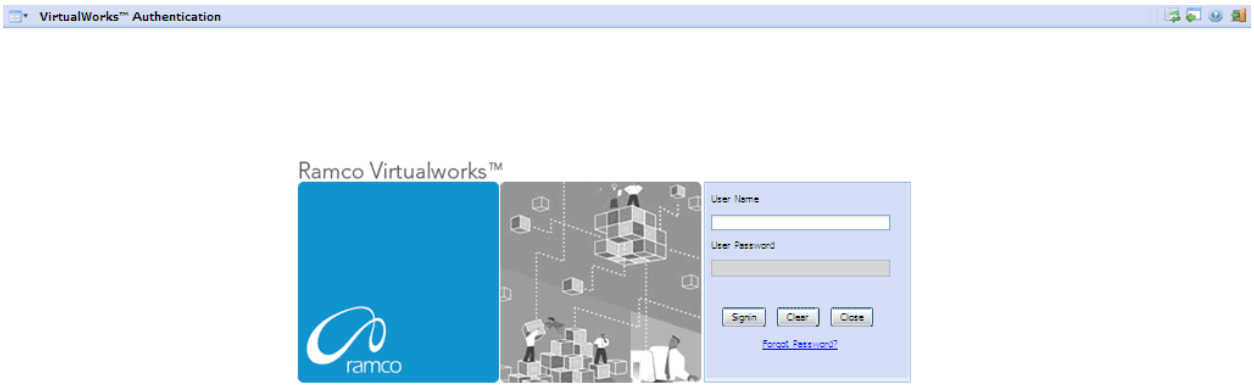
Logging into Ramco Aviation Solution for the first time

Enter the URL of the Ramco Aviation Solution in the Internet Explorer window. For example, URL: http://mecs.vueling.com/rvw.

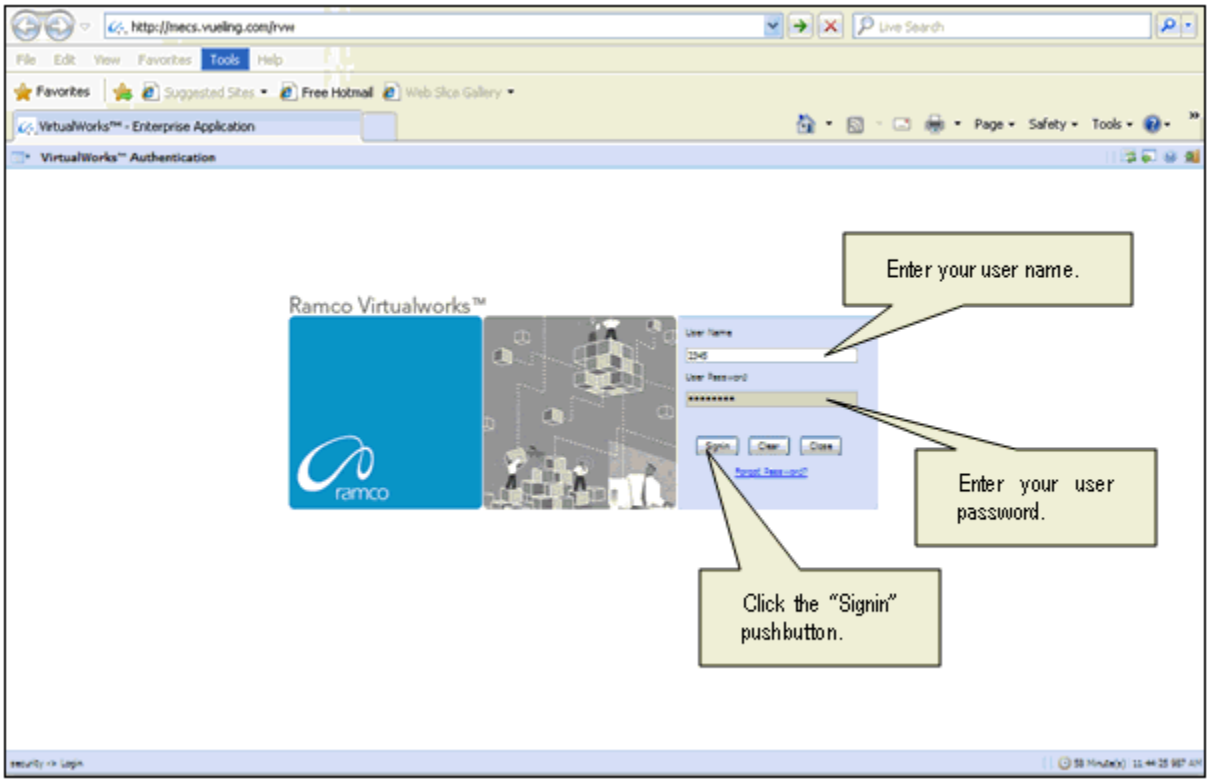


Note: The recommended browser platform for Ramco Aviation Solution is IE8.

The Login page appears.



Enter your **User Name** and **User Password** in the Login page, which have been provided by the System Administrator. Refer to the figure below.



User Name: A unique identifier name or code for logging into Ramco Aviation Solution.

Password: A sequence of characters which, when combined with the user name, ensures that only the user with this password and user name can access Ramco Aviation Solution, where Ramco Aviation Solution offers the user a predefined set of business processes and components.

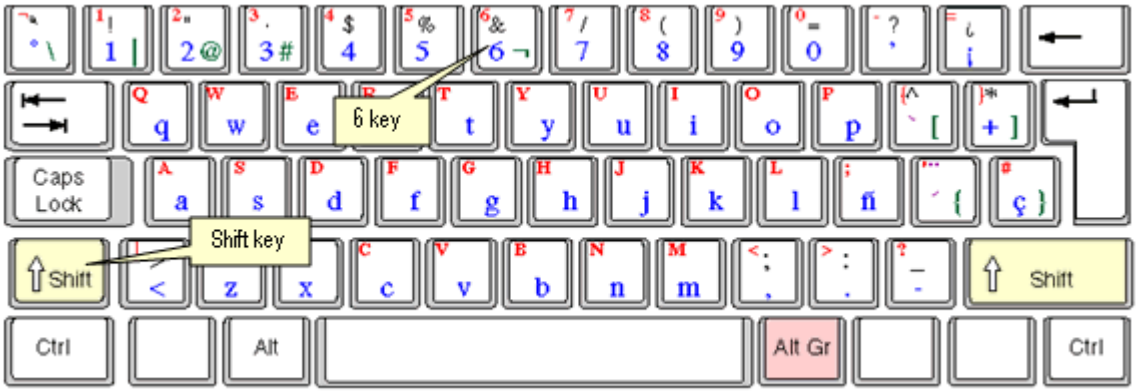
Passwords must be difficult to guess, and kept secret by the user.

What is a Special Character?

A special character is a non-numeric character (not in the a-z alphabet and 0-9 numbers). Common examples are “!”, “@”, “#”, “$”, “%”, ^“”, “&”, “*”.

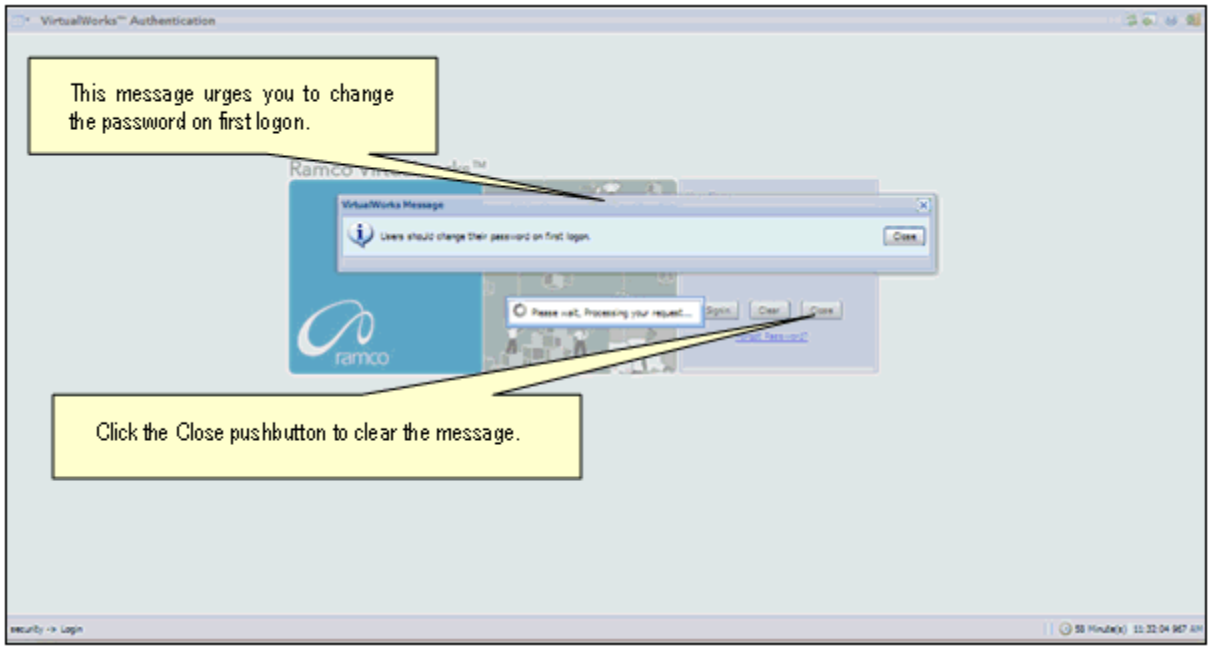
You can type the special characters by pressing Shift + the required character key.

Example: If you want to type “&” as the special character, then press Shift button + 6 Key.



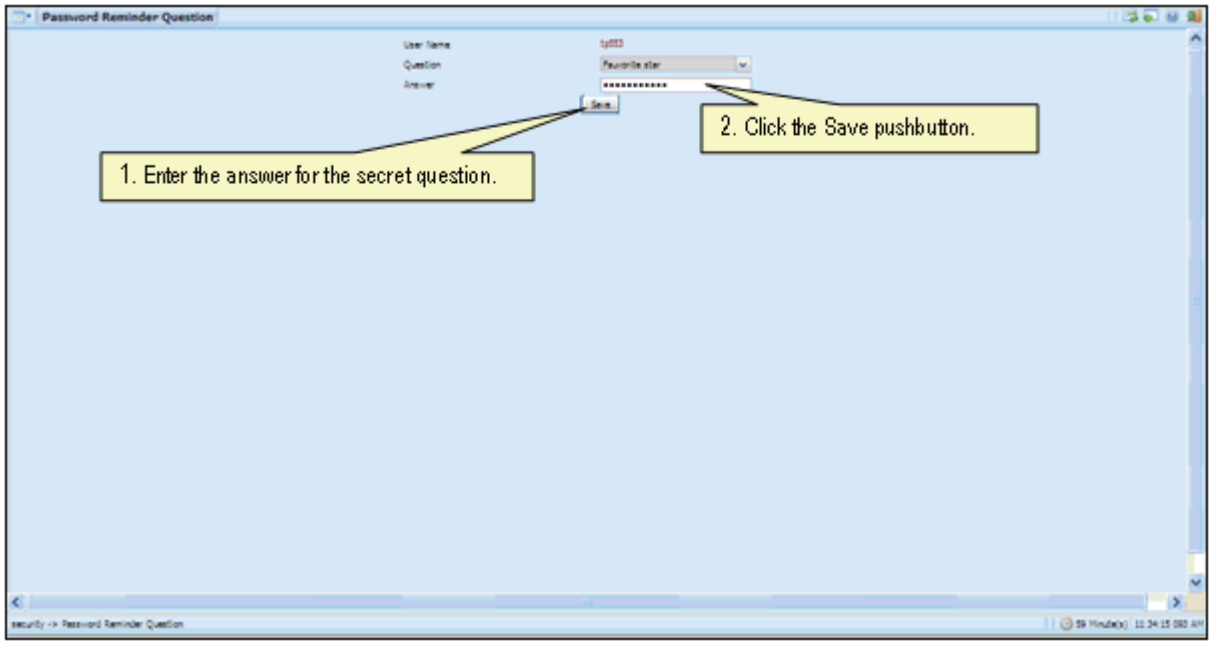
After entering the User Name and Password, click the **Login** pushbutton.

The system will prompt you to change the password, because it is your first login. Refer to the following figure.



Close the window by clicking the **Close** pushbutton.

The **Password Reminder Question** screen appears. The system prompts you to provide an answer to the question.

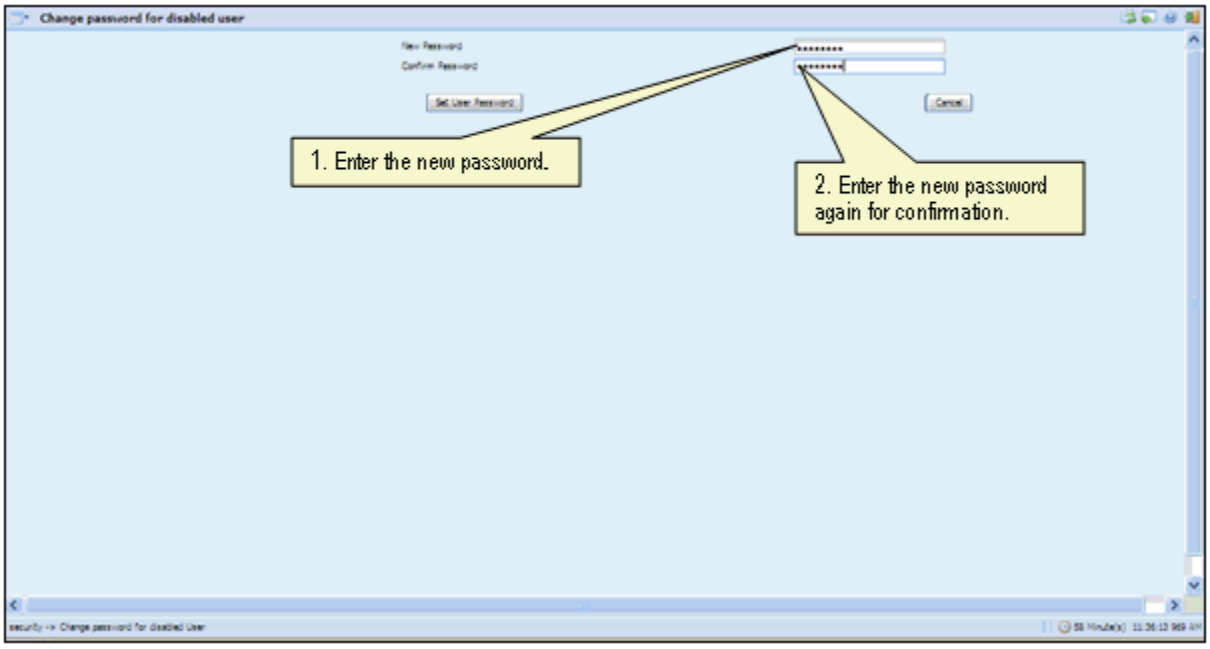


Enter the **answer**.

Click the **Save** pushbutton to save the answer.

Note: The answer provided here will be used for changing the password if you forget your password.

The “Change Password” screen appears.

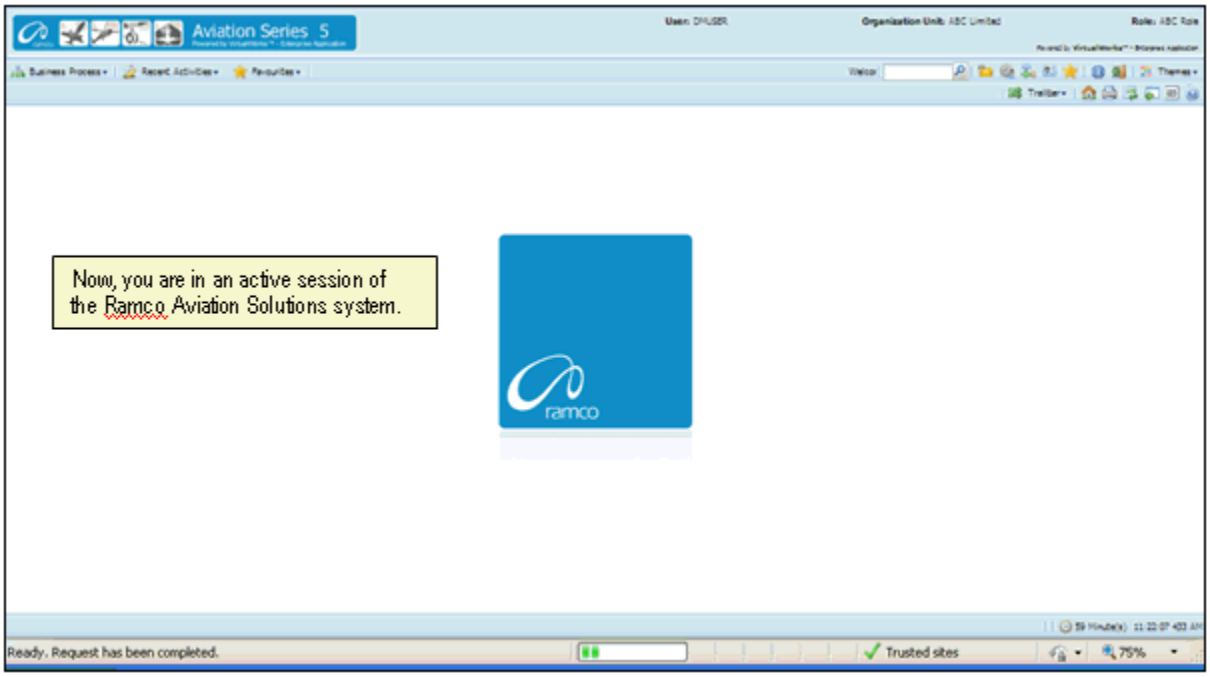


Enter a password of your choice. Ensure that the new password comprises a minimum of six characters and a maximum of 15 characters and includes a special character as well.

Example of passwords: abcd&, abcd*, abc@best

Click the **Set User Password** pushbutton, to save the password.

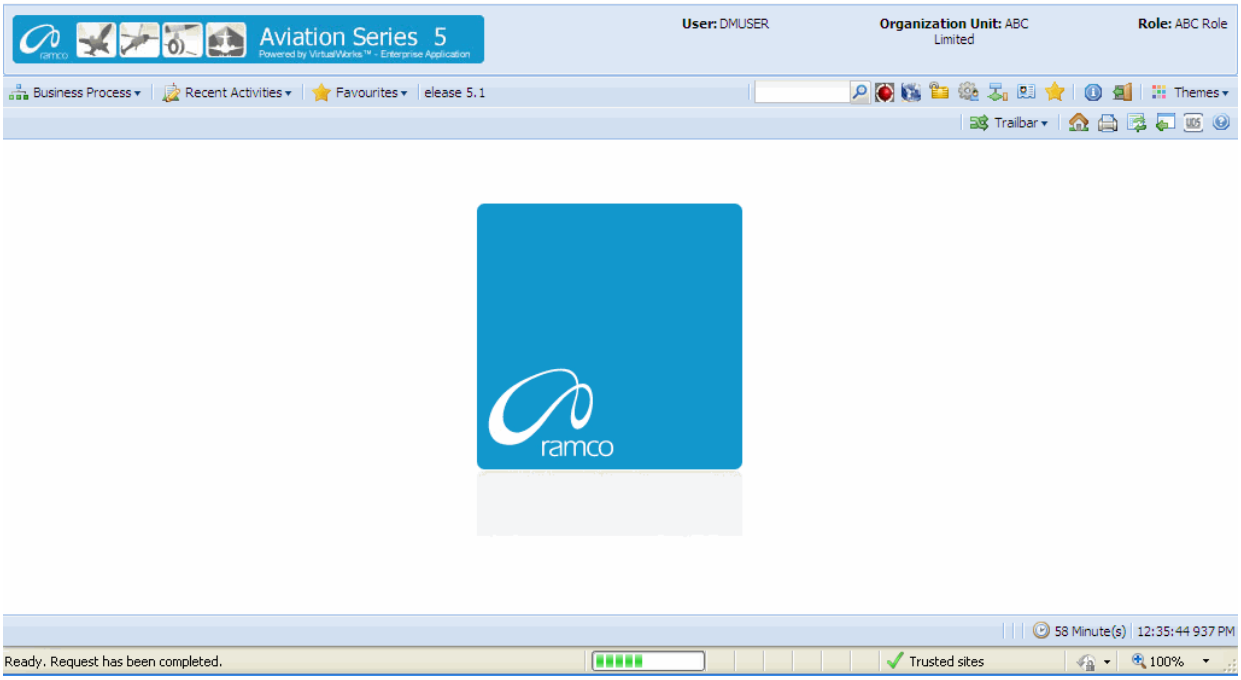
The home page of Ramco Aviation Solution appears. You can now access the activities for which you have permission, from this page.



Ramco Aviation Solution Home page

Welcome to Ramco Aviation Solutions!

You are now in the Ramco Aviation Solutions Home page. This is the first page you encounter, after successfully logging into the application.



From now on, your user name, organization unit and role are displayed on the top right of every Ramco Web page.

Default login details

This section, which occupies the area immediately below the address bar and to the right, side, shows:

- Your user name
- The default role to which your user name is mapped
- The organization unit mapped to the default role

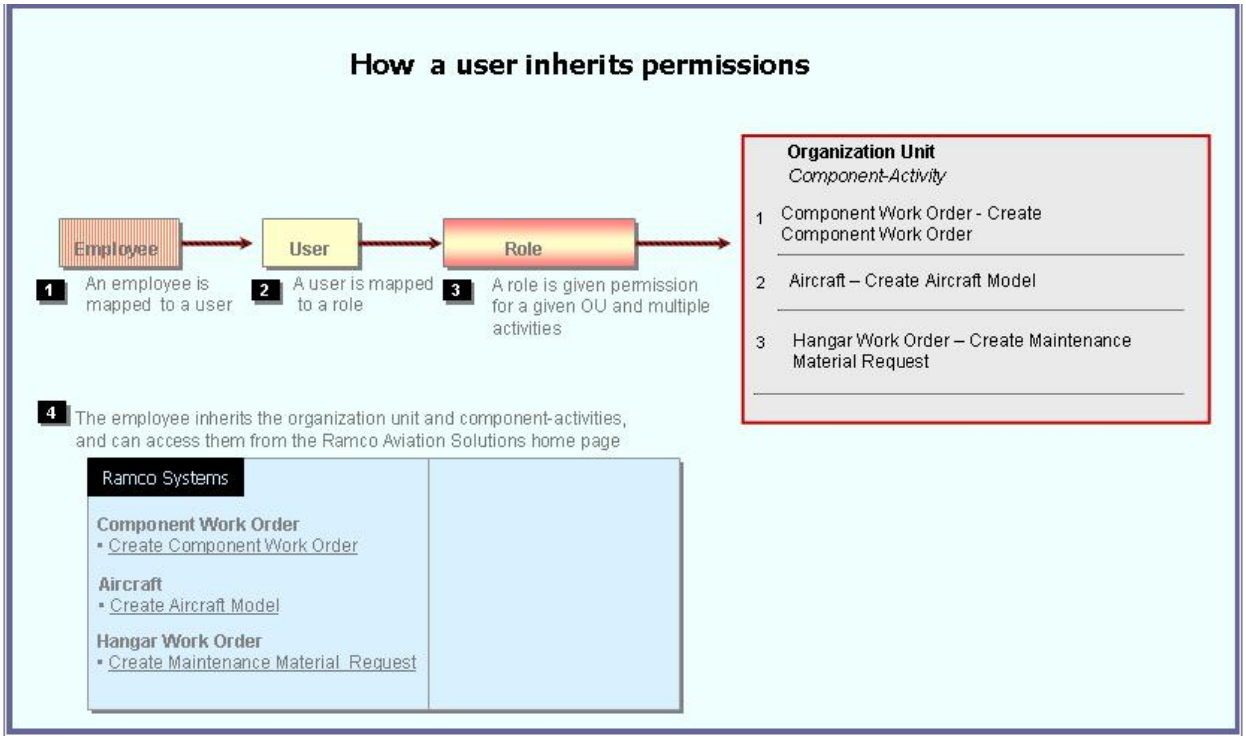
How a user inherits permissions

During deployment, each user name can be mapped or linked to multiple role-organization unit combinations. Shown below are a few examples.

User Name	Role	Organization Unit
John	Configuration Administrator	Tech Records-Indianapolis
John	Engineering Manager	Engineering-New York
John	HR User	Engineering-New York
Andrea	Stores Clerk	Central Warehouse-Los Angeles
Andrea	Shift In charge	Line Station-Chicago
Daniel	Shop Maintenance Manager	Maintenance Shop-Memphis
Daniel	Project Engineer	Head office-New York

For each user name-role-organization unit combination, permission is given to a set of activities. These activities could be across the components deployed in the organization unit. Each user name-role-organization unit combination, therefore, refers to access to (i) a specific organization unit and (ii) one or more activities.

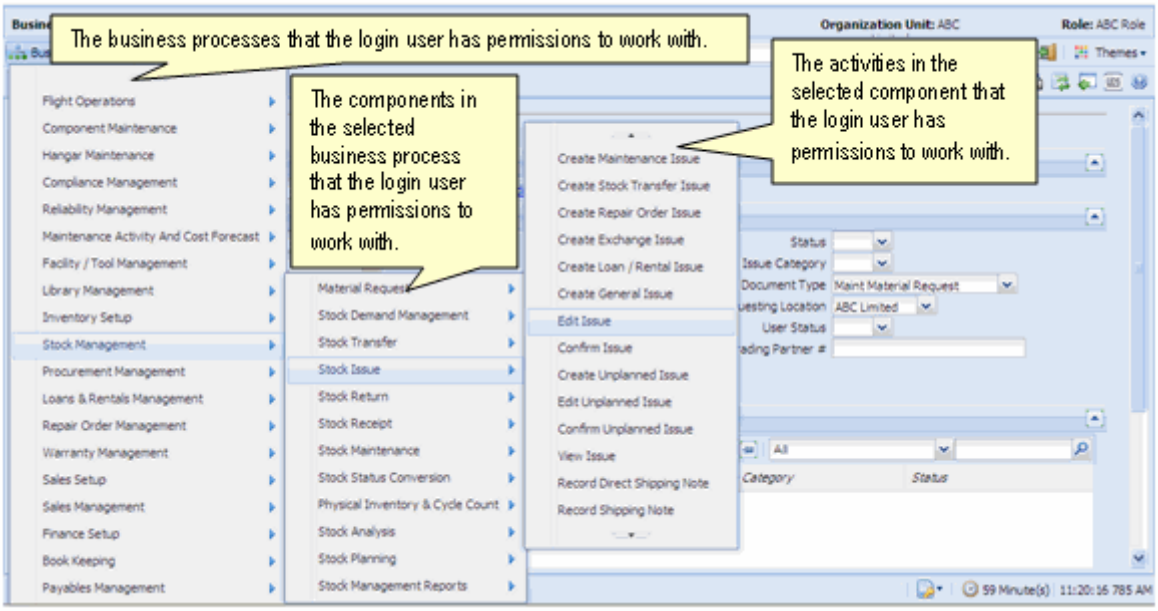
Although a user name can be mapped to multiple role-organization units, the user is assigned a default role-organization unit. This is accomplished through the Setup Defaults icon on the Web toolbar. Therefore, when you login with a given user name, the system retrieves the default role-organization unit and displays it to the right of the page.



Note that there is no separate permission to be obtained for a business process or a component. When you log into a permitted organization unit, the system displays all the business processes and components whose activities your role is permitted to access.

For example, your role may be given permission to two activities under the **Component Work Order** component, and one activity under the **Aircraft** component. When you log in, the system will show the following business processes: **Component Work Order** and **Aircraft**.

- Under the **Component Work Order** business process, the **Create Component Work Order** and **Edit Component Work Order** activities for which you have permission are displayed.
- Under the **Aircraft** business process, the **Create Aircraft Record** activity for which you have permission is displayed.



Business Processes and Activities

Immediately below your user name, the system displays two rows of icons in the Web page toolbar.

On the left half of the first row, there will be three adjacent tabs: they are labeled Business Processes, Recent Activities and Favorites.

Business Process ▾	Those business processes to which your role-organization unit has been entitled permission. Click this icon at the left top of the Web page to find the business process list.
Recent Activities ▾	The most recent list of business activities that you have visited. These activities could be across components and even business processes Click any link, to directly launch the recently visited page.
Favourites ▾	This list, represented by the third icon from the left in the Web toolbar, shows those activities already earmarked as your favorites, using the Favorite icon on the Web toolbar. They will be activities to which your user name-role has been entitled permission. An activity under Favorites provides you a short cut to directly select it after you log into Ramco Aviation Solution, without having to search for the business process and component under which it is logically arranged. Pull down the Favorites menu and select the required activity. The activity is instantly invoked and the first page of the activity appears. This saves users time and effort of traversing to a Web page from the business process, the component and then the activity.

To start an activity under the Recent Activities or Favorites tabs

Select an activity listed under the Recent Activities or Favorites tab.

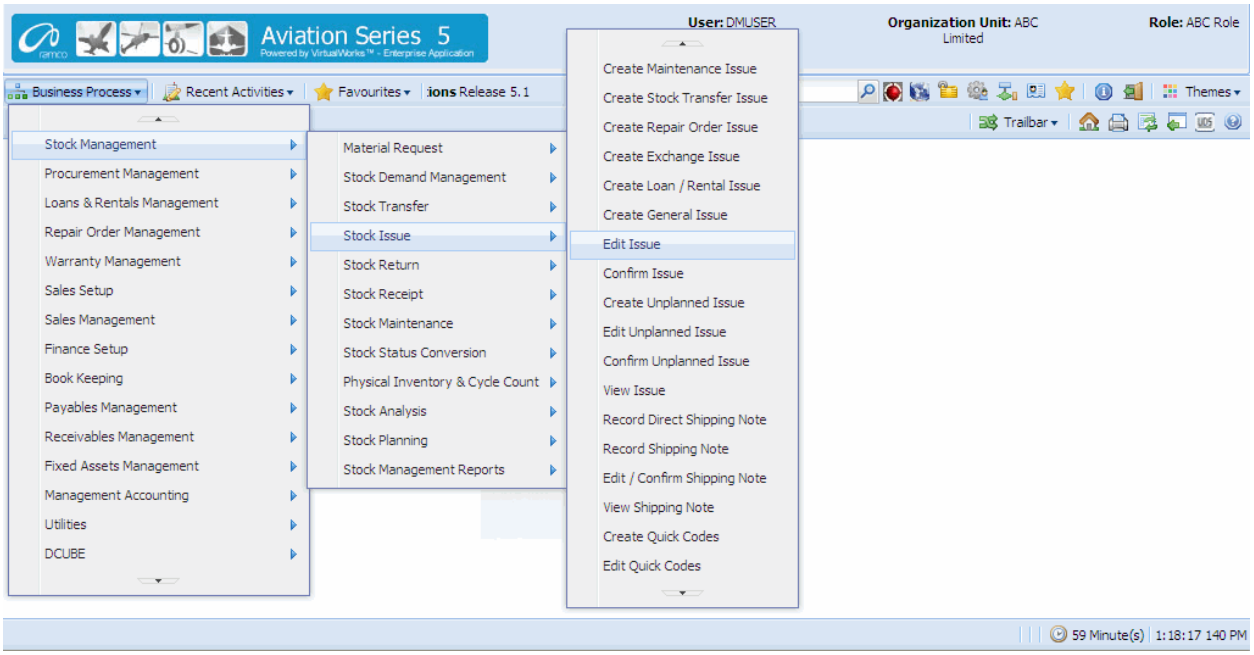
The system displays the first page of the selected activity.

For instance, if the activity Create Component Work Order is listed under the Favorites tab and you select it, the system will display the Select Component page.

To start a business process under the Business Process tab

Select any business process listed under the Business Process tab.

The system displays the components of the selected business process, in the submenu to the right of the selected business process.



Before using a Ramco Aviation Solution Web page

Components, activities and tasks

Before you get started on the Ramco Aviation Solution Web page, you need to know a few concepts based on which Ramco Aviation Solution works. These can be summed up in the few key words that follow.

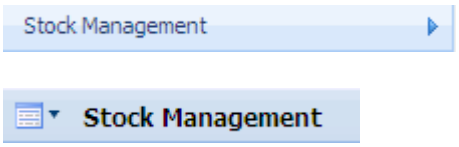
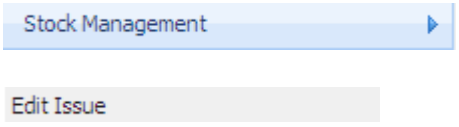
- Business process
- Business component
- Activity
- Web page or user interface

A business process is a collection of interrelated components that pertain to a specific business domain/department, such as Book Keeping, Hangar Maintenance, Stock management, Human Resources Management, etc.

A business component refers to a set of logical actions or transactions that happen during the course of a business process. For example, components Stock Issue, Stock Return and Stock Receipt components are classified under the Stock Management BPC. Likewise, Journal Voucher, Currency Revaluation and Bank Reconciliation components are grouped under the Book Keeping BPC.

An activity refers to any task/transaction under a business component. For example, Create Maintenance Issue, Confirm Issue and Record Shipping Note activities under the

Stock Issue component enable users to perform specific functions of the Stock Issue process.

Business Component		Click the arrow of any business process to display the list of components. Alternatively, click this icon to display the list of components for the previously selected business process.
Activity		Click the right arrow for any component to view the list of activities. Click the activity to view the first page of the activity. You can click links in this page to view more pages in the activity.

Essentially, clicking an Activity opens the **Web page** with which you work. When you are working with a Web page, you would be performing a task in an activity. However, it may or may not be necessary to perform all the tasks in an activity at one go. You may revisit the activity and perform some other tasks that are not mandatory at a later point of time. Hence, it may be concluded that you may have worked with as many **Web pages** as the number of tasks you have performed.

Note that there are several instances when a single Web page is used to carry out the activity straight away. Many of the activities comprise of a single Web page by which the user can both search for a specific record and perform the relevant task on the record.

Correlating tasks to web pages

Given below is an example of the Web pages under an activity, and the task correlating to each Web page.

Go to page…	…To carry out task
Select Issue to Edit	Selecting the stock issue for modification
Edit Issue	Editing the stock issue details
Confirm Issue	Confirming stock issue
Generate MMD Report	Generating MMD for the stock issue
Generate Part Barcode Label	Generate part barcode label for the stock issue

The second page is a hyperlink from the first page. The remaining pages are hyperlinks from the first page or other pages.

More about Search Criteria and the Select web page

You normally encounter a Select page before recording, editing or viewing a record. The "Select Issue Document" is an example of a select page. From this page, you can search for stock issue document you want to edit/view in the following way:

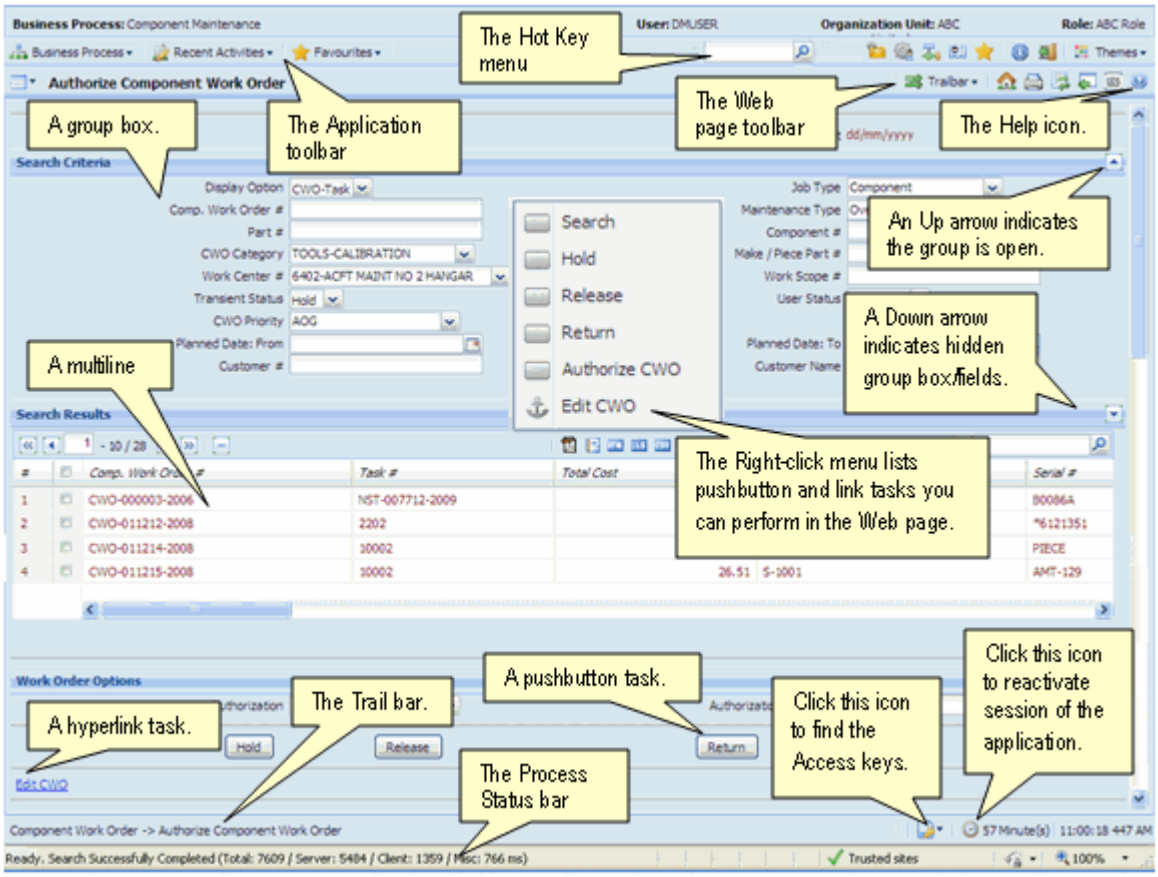
- Select search criteria such as Issue #, Warehouse #, Issue Type or Issue Category.
- You may also specify attributes of a stock issue such as, Ref. Document Type, Ref. Document #, Part # and/or Aircraft Reg. Type.

- The system displays all the stock issue records that satisfy the search criteria, in a multiline.
- From the multiline, select the specific issue record whose details are to be viewed or edited.
- From the Select page, click the link that takes you to the Edit page, Record Page or the View page. Alternatively, one of the fields in the multiline employee records will be hyperlinked, in the Select page. Select the hyperlinked field, to enter the Edit, Record or View page.

A typical Ramco Aviation Solution Web Page

Select a Web page by clicking on the activity on the left pane of the application.

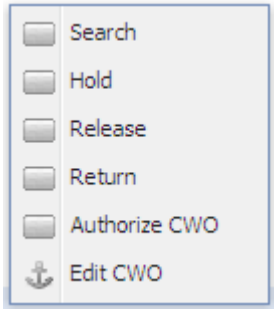
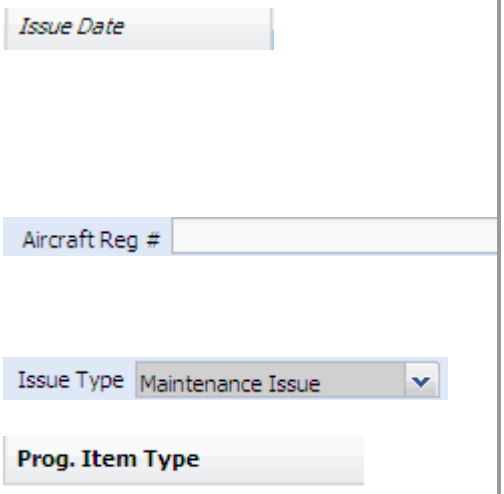
The web page appears.

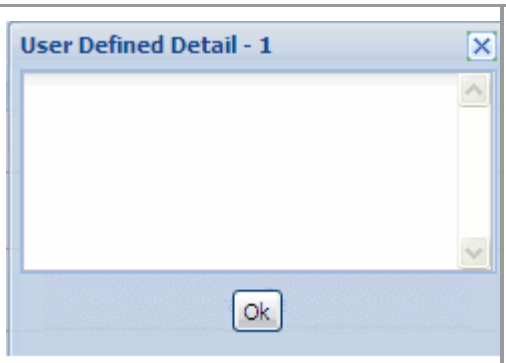
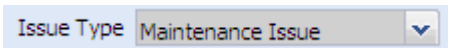


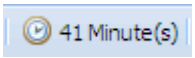
Knowing what a Web page consists of

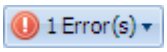
A web page constitutes the entire document that you view online, which you use to either type in information or view information. All other elements described below, except the Menu button, will be inside the Web page.

While using a Web page, here are the basic elements you will be working with.

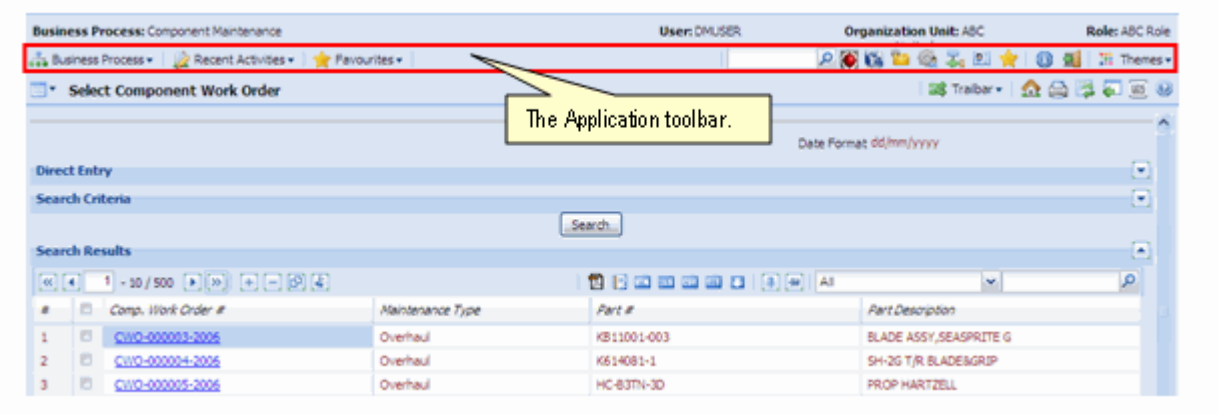
Element	Icon	Description
List of Tasks in Web Page		Right-click anywhere on the Web page to display a drop-down menu that lists the tasks you can perform in the Web page. The tasks include pushbuttons and links.
Record		A record refers to a collection of fields that represent attributes of an entity, such as aircraft, aircraft model, component or part. A record is uniquely identified by a key field, such as an identification number.
Multiline		A table, consisting of multiple rows and columns. Each row contains a single record. Each attribute of the record appears under a column with the field as the header in the multiline.
Field		Each data element in a page, which is either displayed automatically or which you enter/ type in, is a field. A display field appears in an Italic Regular font. An input field may be a text box or a drop-down list box. You may provide a valid input value. A drop-down list box displays a list of values from which you may select the required value. An input field appearing in Bold format implies data entry is mandatory for the field.

Field Input Window		Place your cursor inside an input field in any Web page and click the F2 key to open the input window. You can now type the required information, and click the Ok pushbutton to close the window. This proves convenient for data entry as you can type in text continuously without scrolling as well as view the typed text in its entirety.
Link		A hyperlink when selected opens up another Web page.
Data Hyperlink		Any data in a field when selected, takes you to another Web page.
Search Criteria		Refers to a group of fields you can specify, such as "From Date" and "To Date". It enables the system to retrieve those records that have the same attributes as you have specified. Essentially, fields in the Search Criteria group box are filters to enable the system to retrieve specific and precise records. After you specify filters for retrieving records from the database, you must click the Search pushbutton to display records in the "Search Results" multiline. The number of records to be retrieved for each user interface is decided by the system administrator. Contact your system administrator for more details. The Search Criteria group box most commonly appears in Select pages; though it is not uncommon to find them in other pages as well.
Drop-down List Box		This refers to the list box that appears when you click inside a field containing a downward arrow. The list box shows a list of items, each of which represent an action you can choose.

Lens		The icon positioned next to fields where code search facility is available. Click this icon to search for a code or number. For example, Help on Employee Code.
Pushbutton		A rectangular button that performs an action when clicked. For example, clicking the "Add Employee" pushbutton saves the employee details entered in the page.
Up Arrow		Click this icon appearing at the top of certain drop-down menus to view the hidden list above.
Down Arrow		Click this icon appearing at the bottom of certain drop-down menus to view the hidden list below.
Show Group Box		Select this button to show/ expand a group box.
Hide Group Box		Select this button to hide a group box.
Reactivate Session		Click this icon to reactivate the current instance of the application. The timer next to the icon at the right bottom of the screen displays the time remaining for the end of the session.
Access Keys		Click this icon located at the bottom right of a Web page to view the short cut keys currently available for pushbuttons in the Web page.

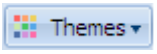
System Error Message		Click this icon located at the bottom right of any Web page to view error messages generated by the application whenever erroneous data is input. Note that this icon appears only when an error occurs.

Application Toolbar



You will find the following elements in the Application Toolbar.

Element	Icon	Description
Hot Key Menu		Use this text box to type in the menu code and then click the  icon for directly launching an activity page. Through the menu code you can open any activity page straightway by avoiding traversal across business components or business processes. Contact your System Administrator for more information.
Change Password		Use this icon on the Web page toolbar to change the password settings for the currently logged in user.
Setup Preferences		Use this icon to set the style and format for numeric, date and time displays.

Change User Context		Use this icon to switch across organization units or roles.
Setup Defaults		Use this icon to select the organization unit to which you will be logged in, by default.
Define Favorites		Use this icon to list down all the activities defined in the favorites. i) Click this icon to open the Organize Favorites window. ii) Specify the activities that must be set as favorites. iii) Click the Save user favorites pushbutton.
About VirtualWorks		Click this icon to know more about Ramco Aviation Solution.
Signout		Click this icon to log out of the current session of the Ramco Aviation Solution.
Themes		Use this drop-down list box to set the theme for the user interface (UI). Theme defines the color scheme, style and appearance of the user interface.

Note: Some more icons may appear in the Application toolbar, which may not be useful to end-users.

After the page appears, you may view it and then exit by clicking the Exit button on the Web page toolbar, after viewing the contents of the page.

When you complete selecting / viewing / entering data in all the required fields in the page, you can either:

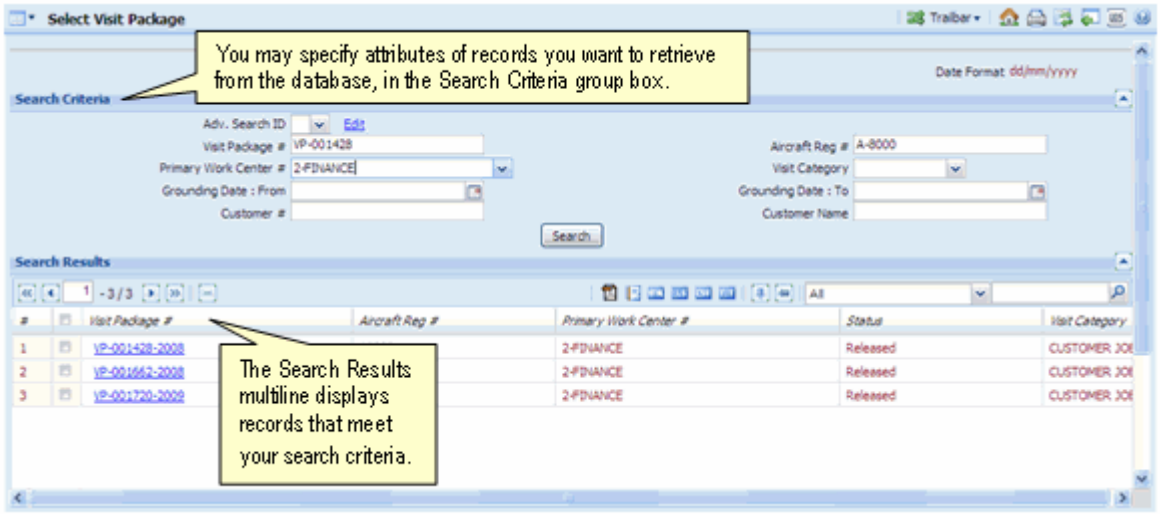
- Save the details you entered in the current Web page, by clicking the relevant pushbutton.
- Select or choose a row in the multiline, by checking the box that appears as the first field of the row. Traverse to the next page, by selecting a link in the current page. In the next page, you can enter additional details that pertain to the multiline row. (A row in a multiline represents a record.)
- Exit the Web page without effecting any action that you might have carried out in the Web page.

Adding a record

You can add a new record in a web page. You are to enter a unique code to identify the record, along with other details of the record such as description, type, etc. This unique code of the record

- Can identify it from other records
- Cannot be edited
- Can be used to retrieve the record for edit and delete tasks
- Selecting a record

For certain other actions such as edit, delete, authorize or report generation, at the onset you need to find and choose a record in a **Select** page.



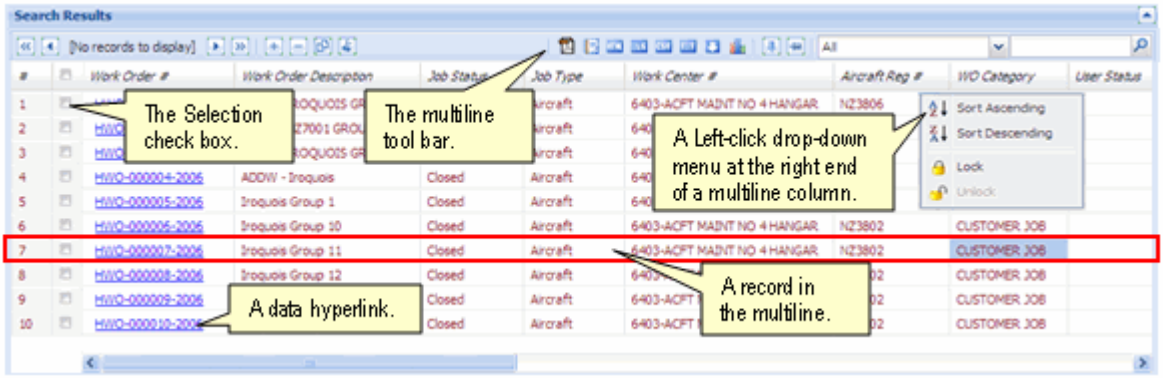
The Select page provides a **Search** facility to find a record based on the search criteria that you can specify. The application retrieves and displays records that match the search criteria in a multiline. You may then proceed to do the following,

- Select or choose a record in the multiline, by checking the box that appears in the second column of the multiline. (The first column displays the sequence number of the record, which depicts the order in the multiline.)
- Click the link for the required action/event at the bottom of the page.

The page for the chosen action/event appears, displaying all the details of the record you selected in the multiline of the previous page. You may now edit, delete, authorize or carry out any other valid action on the record.

However, some Select pages facilitate deletion, authorization or release of records in addition to the search and find feature.

Using the multiline



Adding a multiline row

A multiline row can be added, using the toolbar icons above the multiline. It can be either inserted between two existing multiline rows, or added to the end of the last row. You are to

- Position the cursor in the multiline row above which the row must appear.
- Click the ✚ icon on the toolbar above the multiline.

Deleting a multiline row

A multiline row can be deleted, using the toolbar icons above the multiline. The item to be deleted must not have been used in any transaction, so far. You are to

- Check the Selection check box for the record that appears in the second column of the multiline.
- Click the ▬ icon on the toolbar above the multiline.

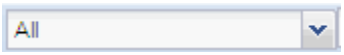
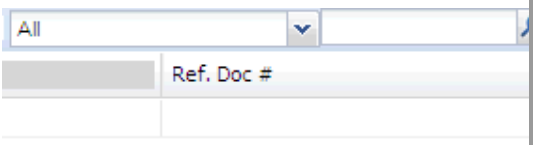
Multiline toolbar

The icons in the multiline toolbar are explained below.

Element	Icon	Description
Selection check box	☑	A check box normally occurring as the second column of every multiline row. It precedes the record in the row. Check the Selection box to mark the record for copy and append, cut and append or deletion. You must also check this box to perform any pushbutton task or hyperlink task available in a Web page. Use the check box in the same row as the multiline header, to simultaneously select all the displayed records in the multiline.

First Record		Click this button, to view the first set of multiline records.
Previous Row Set		Click this button, to view the set of multiline records immediately preceding the currently displayed set of multiline records.
Next Row Set		Click this button, to view the next set of multiline records. However, this is applicable only if the number of retrieved records cannot be accommodated in the current set of multiline rows, and the rest need to be displayed in the next set of multiline rows.
Last Record		Click this button, to view the last set of multiline records.
Insert Record		Click this button on the toolbar above the multiline, to insert a record in the multiline.
Delete Record		Click this button on the toolbar above the multiline, to delete the selected record in the multiline.
Copy and Append Record		Click this button on the toolbar above the multiline, to copy a selected record and insert it at the end of the multiline.
Cut and Append Record		Click this button on the toolbar above the multiline, to remove a selected record and insert it at the end of the multiline.
Export to Excel		Click this button on the toolbar above the multiline, to export the multiline contents to Microsoft Excel.

Show PDF		Click this button to view all the multiline records in PDF format. All those records the system cannot accommodate in the current set of multiline rows can also be viewed in PDF.
Show report		Click this button to view the entire report including the header and the records in a pop-up window. All those records that the system cannot accommodate in the current set of multiline rows can also be viewed by maximizing the window. You can also (i) hide a column in the report and/or' (ii) group and view a report by any of the columns in the report.
Show Html		Click this button to view the multiline records in a browser. All those records that the system cannot accommodate in the current set of multiline rows are also displayed in the browser.
Export to Excel		Click this button to view the multiline records in an Excel worksheet in the XML format. All those records that the system cannot accommodate in the current set of multiline rows are also displayed in the worksheet.
Export to csv		Click this button to view the multiline records in an Excel worksheet in the CSV format. All those records that the system cannot accommodate in the current set of multiline rows are also displayed in the worksheet.
Export to text		Click this button to view the multiline records in the Text format. All those records that the system cannot accommodate in the current set of multiline rows can be viewed in Notepad.
Show chart		Click this button for generating charts based on numeric columns.

Import data		Select this button to import data from a CSV or an XML file.
Save Personalize		Use this button to save any change in the size or order of the columns in the multiline that you have made. Once saved, the changed settings will appear when the page is launched again.
Remove Personalize		Select this button to remove the personalization that you previously made.
List of columns in the multiline		Use the first drop-down list box at the top right of a multiline for a complete list of columns in the multiline.
Find specific record from among the retrieved records		Select the required column from the first drop-down list box on the top right of a multiline. Specify a search value for that column in the input box alongside. Thereafter, click the icon to pass the control to the first instance of the value in the selected column in the multiline.
Sort/lock multiline columns		You can use this menu to (i) sort rows in the multiline in ascending/descending order. (ii) lock columns in the multiline.

Editing a record

You can edit most records through an Edit page. Although the rules governing the fields to be edited will differ between record types, most records do not allow an edit of the unique code identifying the record. Example, an employee record can allow most of the fields to be edited except the Employee Code field.

You can edit a record, provided the record has not been authorized or mapped to any other record. In short, the record must not have been used by any other transaction. You are to

- Select the Edit activity option on the left pane. The Select page appears.
- Select the record to be edited, from the Select page.
- Select the "Edit" link from the Select page. The Edit page appears, showing the details of the selected record.
- Edit the fields that the system permits you to edit. After completion, save the page. The edited details are updated in the database.

Authorizing a record

A record is authorized by any employee who has been given supervisory rights. The rules governing the authorization of records will differ between record types.

Keeping two web pages open simultaneously

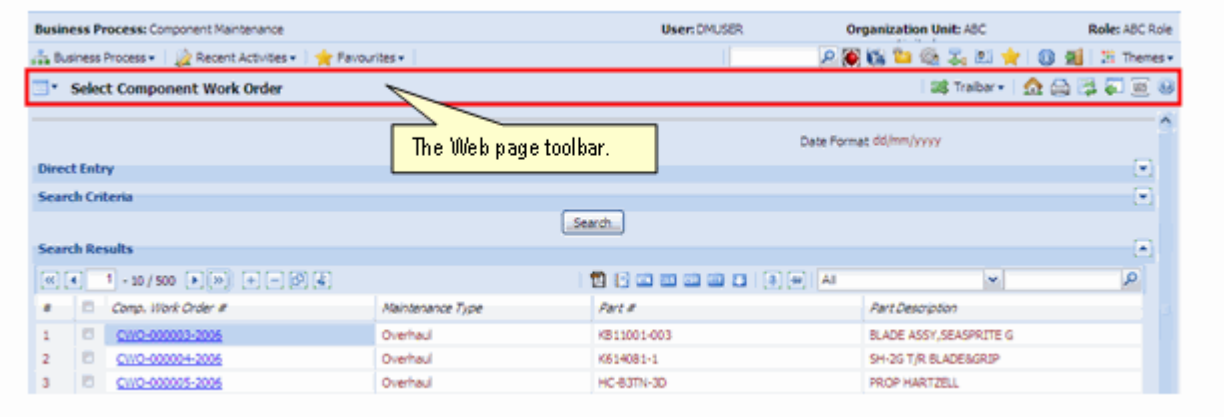
To keep two pages open at the same time, you are to open the browser twice. This implies that you login separately each time, and select the required activity and page.

IE8 is the recommended browser platform for Ramco Aviation Solution.

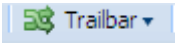
What is the bare minimum to enter?

In a typical Ramco Aviation Solutions Web page, certain fields crucial for identification of a record appear in **Bold** font. This implies they are mandatory and you must specify a value for the field. Conversely, any field that appears in the Regular font is not mandatory and hence the user need not provide any value for the field. However, certain mandatory fields are set to default values for easy usage, which you may modify, if required.

Web Page / User Interface Toolbar



Here are the elements you will be working with, in the Webpage Toolbar.

Element	Icon	Description
Trailbar		The Trailbar drop-down list box displays all the Web pages traversed to reach the current Web page.
Go to Home page		An icon you select to go to the Home page.
Print screen		Use this icon to obtain a hard copy of the Web page.
Refresh Screen		A button that you select on the Web Page toolbar to enable the system to fetch the most recently updated data from the database. When you select this button in a Create page, the fields are made empty.
Go Back		Click this icon to traverse to the previous page.
Launch UDS		Click this icon to launch the user-defined screens.
Show Help		Click this icon to open the online context -sensitive help for a Web page. Alternatively, click the F1 key to open the Help page. However, to access online Help for a tab page, position the cursor on the tab page and then click the F1 key.

Chapter 1/ Introduction

Aviation industry is maintenance intensive and cannot be compromised due to the airworthiness of the aircraft. Most of the maintenance activities that are to be performed on the aircraft are based on the number of hours for which the aircraft flew and the number of airframe cycles that the aircraft has undergone. Apart from the planned maintenance, any discrepancies observed in aircraft also need to be reported and corrective actions taken accordingly so as to maintain the airworthiness of the aircraft.

Line Maintenance plays a vital role in providing usage of the aircraft on a continuous basis and recording the flight and ground event pertaining to reporting and processing of discrepancies, apart from carrying out the scheduled maintenance events. The maintenance activities on aircraft and components such as overnight checks, pre-flight checks, unscheduled removals of line replaceable units (LRUs) or components are performed in field repair stations. This business process aims to address the flight logging function including reporting of technical snags and its subsequent processing.

The **Line Maintenance** business process comprises the **Aircraft Maintenance Execution, Work Monitoring and Control, Discrepancy Processing** and **Line Planning and Control** sub processes. Line Maintenance activities can be categorized into:

- Recording Aircraft Maintenance Execution
- Work Monitoring and Control
- Processing Discrepancies
- Line Planning and Control

The **Aircraft Maintenance Execution** sub process enables you to capture the details of an aircraft maintenance execution. The aircraft maintenance execution contains the discrepancies observed by the aircraft maintenance engineer or the cabin crew, which can be resolved by the mechanic. If the mechanic is not able to resolve any of the discrepancies due to non-availability of spares, resources, tools etc., then this discrepancy can be deferred for a specific time period defined for the deferral item. The aircraft maintenance execution enables you to record and report material consumption and resource consumption details, and the date on which the discrepancy was resolved by the employee. It also enables you to track and complete the work units required for resolving the discrepancy.

The **Work Monitoring and Control** sub process enables the shop supervisors to plan work for the mechanics/employees and review the status of the tasks. The supervisors perform all the system activities including timesheet booking for the mechanics. This allows the mechanics to work only on the aircraft and reduce their system activities.

Discrepancies on an aircraft are reported at various stages, as part of work order reporting or when a Journey Log is recorded for a flight. Such discrepancies can either be

resolved immediately or deferred to a later date. The deferral limits are as agreed upon by the local regulatory authority.

The **Line Planning and Control** sub process enables you to review the discrepancies that are identified during the execution of line maintenance activities on the aircraft. This sub process also enables the MOC (Maintenance Operational Clerk)/DOC, to track and resolve the SOS (Ship or Shelf) disposition details.

Chapter 2/ Aircraft Maintenance Execution

This activity enables you to create and update the aircraft maintenance execution (AME) details for an aircraft. The aircraft maintenance execution reference document is essentially a line work order, designed to manage all aspects including hangar work execution. For every journey, an aircraft maintenance execution reference is created. The user can create Aircraft Maintenance Execution References for the same aircraft.

The **Aircraft Maintenance Execution Reference** serves the following purposes:

- Creating aircraft maintenance execution reference for an aircraft.
- Recording one or more discrepancies observed on the aircraft, and details about the discrepancies.
- Deferring discrepancies.
- Recording the details of work information, for the aircraft maintenance execution reference.
- Signing off work performed.
- Signing off of bulk work unit/ task/subtask.
- Reporting compliance with scheduled minor checks.
- Recording removals and replacements of a component.
- Recording the material request, resource consumption details, part consumption details and the effort spent for carrying out the resolution action of any discrepancy.
- Editing discrepancy, package and task attributes.
- Generating customer service orders for packages associated with customer-owned aircraft.

Recording aircraft maintenance execution details

The “Record Aircraft Maintenance Execution Details” page is divided into the following sections: *See Figure 2.1*.

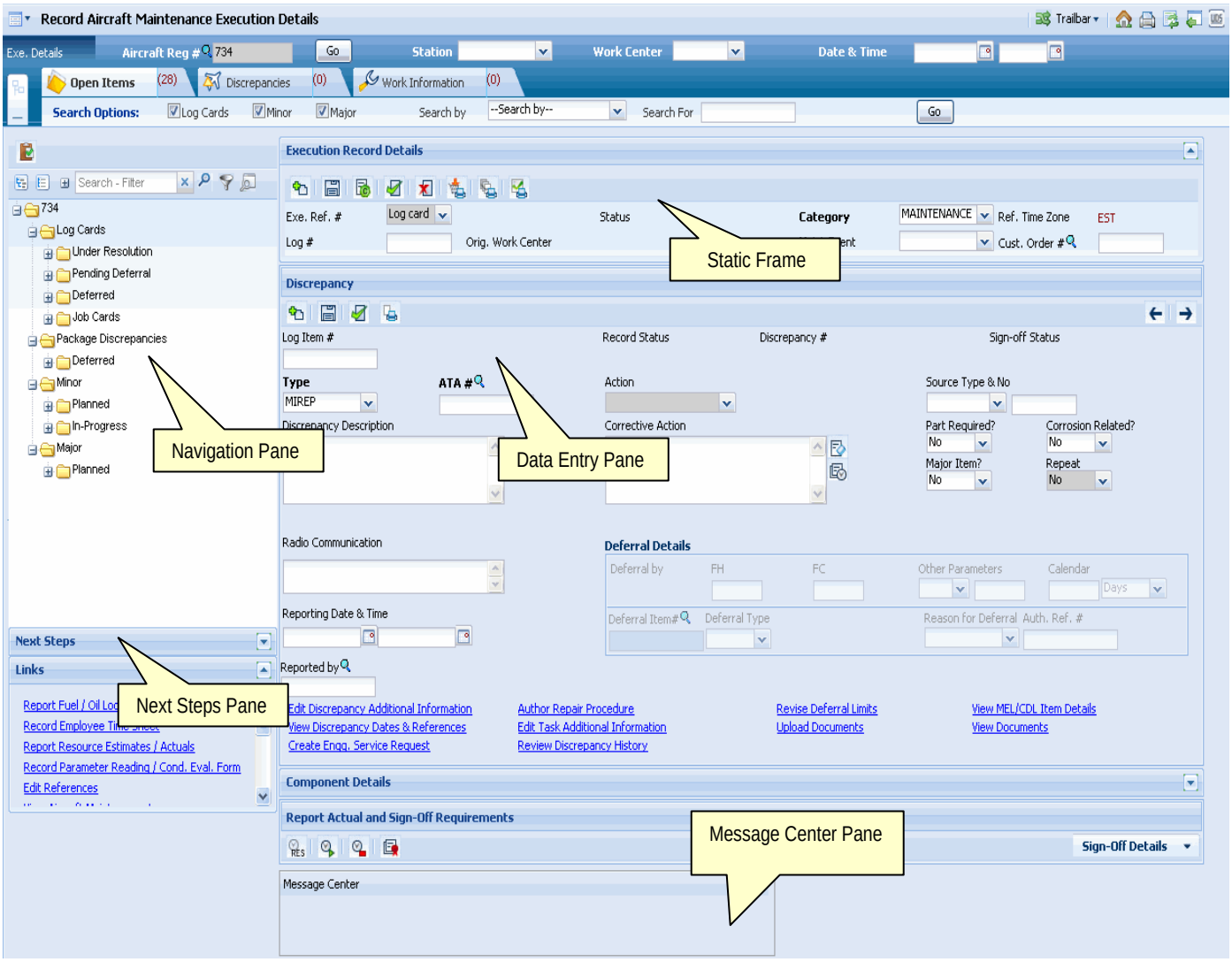


Figure 2.1 Recording aircraft maintenance execution details

1. **Static Frame**: This frame remains static through the various operations performed in the rest of the interface. Information about the aircraft maintenance execution reference is recorded here.

2. **Navigation Pane**: This pane provides a summary view of all the information related to the aircraft maintenance execution reference. It also is used to retrieve the details of a specific record, for performing data maintenance operations.

3. **Data Entry Frame**: This frame is dynamically loaded, based on the values selected in the navigation pane.

4. **Message Center Pane**: This pane displays error and success messages for all validations.

5. **Next Steps Pane**: This pane directs the user on the next process to be carried out.

Creating a new aircraft maintenance execution reference

An aircraft maintenance execution reference is used to record the discrepancy and its resolution / deferment information reported by the mechanic. It is also used to record component replacement details and work-sign-off information for tasks and sub-tasks. The maintenance engineer records the aircraft maintenance execution reference after every flight event, prior to the next journey.

1. Select **Record Aircraft Maintenance Execution Details** activity under the **Aircraft Maintenance Execution** business component. The **Record Aircraft Maintenance Execution Details** page appears. *See Figure 2.2.*

2. Enter a valid and active aircraft reg # number in **Aircraft Reg** # and press “Enter”.

3. Use the **Station** drop-down list box to select the station from where the aircraft maintenance execution reference has been reported on the aircraft.

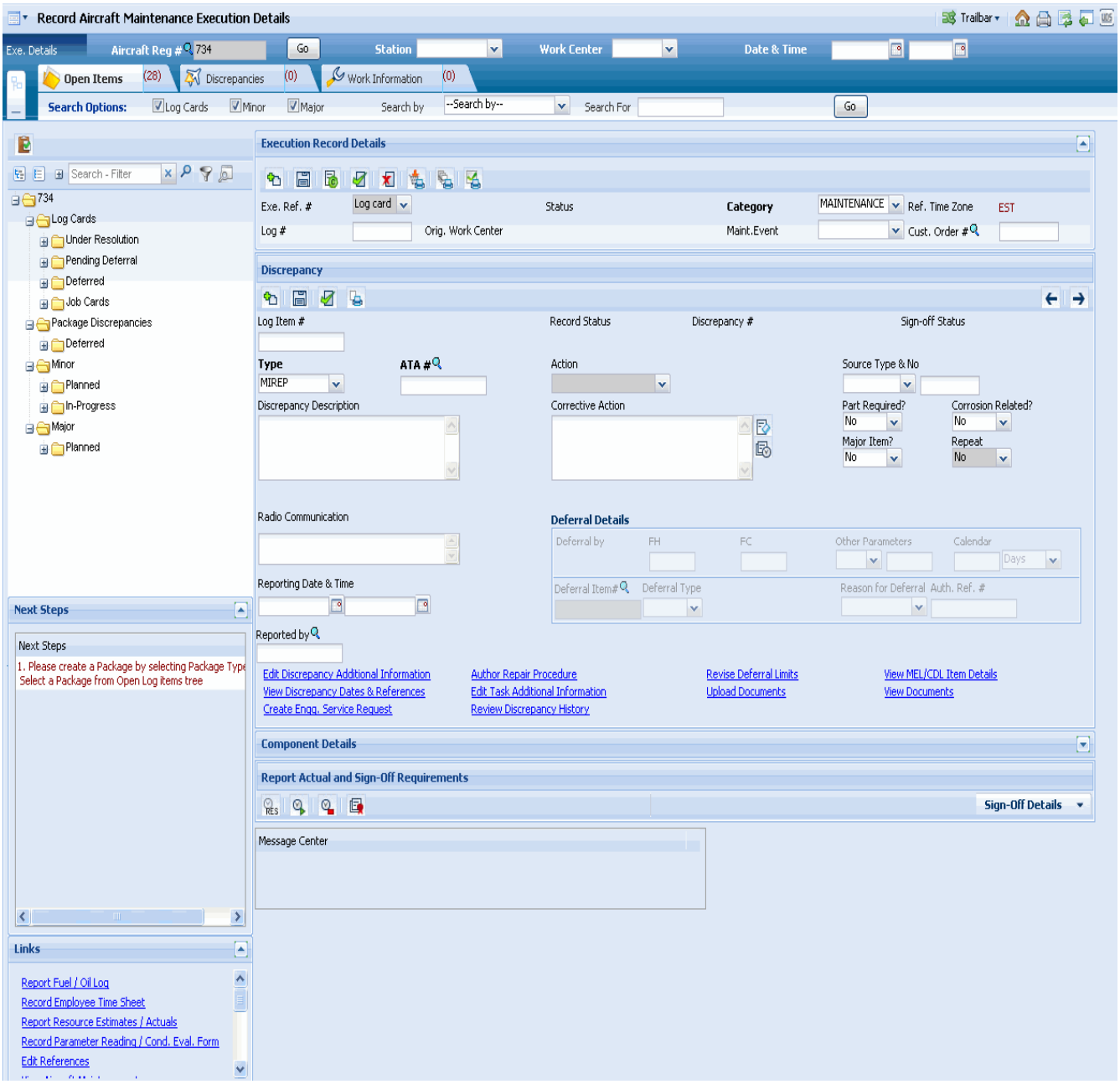


Figure 2.2 Creating a new aircraft maintenance execution reference

4. Select the **Work Center** for the Aircraft Maintenance Execution Reference.

On entering the “Aircraft Reg #”, the following are carried out:

- The **Discrepancies** pushbutton displays the total number of open discrepancies in **Pending** and **Deferred** statuses, for the aircraft.
- The **Open Items** pushbutton displays the total number of individual aircraft maintenance execution references that are in **“Planned”, “In-Progress” and “Completed”** status, for the aircraft.

- The **Component Replacement**, **Work Information** and **Material Request** pushbuttons do not display values in their display fields.

On entering the Aircraft Reg #, the system displays **Customer #**, if the ownership of the aircraft is defined as **Customer** in the **Aircraft** business component,

5. Enter the order number of the customer in the **Customer Order #** field displayed adjacent to the Customer #.

6. The system displays the date and time at which aircraft maintenance execution reference was executed, in **Exec. Date and Time** field.

In **Search Options** group box,

7. Check the **Log Cards, Minor or Major** box in the **Display By** field to display the Aircraft Maintenance Execution References of corresponding Doc. Types.

8. Use the **Search By** drop-down list and select one of the following values based on which the Log Item # / Discrepancies and Aircraft Maintenance Execution References are retrieved and displayed in the corresponding tree interfaces. An editable box is provided alongside in which the values corresponding to the item selected in the drop-down list box are entered: 'Log Item #', 'Deferral Type', 'Discrepancy / Task Description', 'ATA #', 'Work Area #', 'Zone #', 'Reported Date', 'Execution Phase', 'Reporting Station', 'Exe. Station', 'Discrepancy / Task #', 'Requested Part #', 'Removed Part #', 'Pending Mechanic', 'Pending Inspector', 'Pending RII', 'Skill', 'Exe. Ref. User Status', 'Task User Status', 'Eng Doc #', 'On-Wing', 'Component Change', 'Routine', 'Non-Routine' and 'Part Regd?''

Tree Interface display logic:

The Log Item / Discrepancies, Aircraft Maintenance Execution References and the work units are retrieved and displayed in the corresponding tree interfaces based on the values selected in the "Search By" drop-down list box, The values displayed are as shown in the following table:

Search By	Values displayed in tree interface
Log Item #	Open Log List Tree • Log cards and Packages (Major/Minor) having Discrepancies with the Log Item # specified in the editable field. Discrepancy Tree • Discrepancies with the Log Item # specified in the editable field.
Deferral Type	Open Log List Tree • Deferred Discrepancies having the 'Deferral Type' specified. The Deferral Type could be "MEL", "CDL'', "DMI". "Cabin" or "Non-Routine". Discrepancy Tree • Log Cards with the Deferral Type specified.

Discrepancy / Task Desc	Open Log List Tree • Packages and Log cards containing discrepancies and tasks with description specified. Discrepancy Tree • Discrepancies or the associated Non standard tasks of the discrepancies with description specified.
ATA #	Open Log List Tree • Discrepancies having the ATA # specified in the editable field. • Tasks in Major / Minor Packages with the ATA # specified in the editable field. Discrepancy Tree • Discrepancies having the ATA # specified in the editable field. Work Information Tree • Tasks having the ATA # specified Component Replacement Tree • Tasks having the ATA # specified. • Component Removal Records under the retrieved tasks. Material Request Tree • Tasks having the ATA # specified. • Material Request records under the retrieved tasks
Work Area #	Work Information Tree • All tasks with the Work Area # specified. The work Area # is defined in the "Edit Task Additional Information" page.
Zone #	Work Information Tree • All tasks with the Zone # specified. The Zone # is defined in the "Edit Task Additional Information" page.
Reported Date	Open Log List Tree • Packages with the reported date specified. Discrepancy Tree • Discrepancies with the reported date specified. Work Information Tree • Work units under the current Execution Ref # having the Date provided in the search cluster and falling between their actual start date / time and actual end date/ time. Component Replacement Tree • CR records under the tasks, matching the date specified. Material Request Tree • Material Request records under the tasks, matching the date specified.
Execution Phase	Work Information Tree • Work units under the current Execution Ref # having the Execution phase specified. The Execution Phase is defined in the "Edit Task Additional Information" page.
Reporting Station	Open Log List tree • Discrepancies having the same Reporting Station as specified in editable field. • Major / Minor Packages having the same Reporting Station as specified in the editable field. Discrepancy Tree • Discrepancies having the same Reporting Station as specified in the editable field.

	• AME s having the same Reporting Station.
Exe. Station	Open Log List tree • Discrepancies having the same Execution Station as specified in the editable field. • Major / Minor Packages having the same Execution Station as specified in the editable field. Discrepancy Tree • Discrepancies having the same Execution Station as specified in the editable field.
Discrepancy / Task #	Open Log List Tree • Discrepancies matching the discrepancy # specified. • Major / Minor Packages having the task # specified. Discrepancy Tree • Discrepancies matching the discrepancy # specified Work Information Tree • Tasks having the same Task # specified Component Replacement Tree • Tasks / Discrepancies having the same Discrepancy / Task # specified. Material Request Tree • Tasks / Discrepancies having the same Task / Discrepancy / Task # specified.
Requested Part #	Open Log List Tree • Discrepancies having the part # specified. • Major / Minor Packages having the part # specified. Discrepancy Tree • Discrepancies with the part # specified. Work Information Tree • Tasks with the part # specified. Component Replacement Tree • Tasks and discrepancies with given part # as requested part # and having Component removal records (Both Removal and Installations) Material Request Tree • Records with the part # specified.
Removed Part #	Open Log List Tree • Discrepancies with the part # which is specified in the search criteria and which is in removed condition. • Major / Minor packages with the part # which is specified in the search criteria and which is in removed condition. Discrepancy Tree • Discrepancies with the part # specified in the search criteria and which is in removed condition. Work Information Tree • Tasks with the part # specified in the search criteria and which is in removed condition. Component Replacement Tree • Records with the part # specified in the search criteria and which is in removed condition. Material Request Tree • Tasks with the part # specified in the search criteria and which is in removed condition.

Pending Mechanic	Open Log List Tree • Discrepancy records having Mechanic Sign-Off pending. • Packages with tasks pending for the mechanic sign-off. Discrepancy Tree • Records having Mechanic Sign-Off pending. Work Information Tree • Records having Mechanic Sign-Off pending. Component Replacement Tree • Tasks or discrepancies which are pending for Mechanic sign-off and having component removal records saved. Material Request Tree • Tasks or discrepancies which are pending for Mechanic sign-off and having part requirement details saved.
Pending Inspector	Open Log List Tree • Discrepancy records having Inspector Sign-Off pending. • Packages with tasks pending for the inspector sign-off. Discrepancy Tree • Records having Inspector Sign-Off pending. Work Information Tree • Records having Inspector Sign-Off pending. Component Replacement Tree • Tasks or discrepancies which are pending for Inspector sign-off and having component removal records saved. Material Request Tree • Tasks or discrepancies which are pending for Inspector sign-off and having part requirement details saved.
Pending RII	Open Log List Tree • Discrepancy records having RII Sign-Off pending. • Packages with tasks pending for RII sign-off. Discrepancy Tree • Records having RII Sign-Off pending. Work Information Tree • Records having RII Sign-Off pending. Component Replacement Tree • Tasks or discrepancies which are pending for RII sign-off and having component removal records saved. Material Request Tree • Tasks or discrepancies which are pending for RII sign-off and having part requirement details saved.
Skill	Open Log List Tree • Discrepancy records having the skill specified. • Packages with tasks having the skill specified. Discrepancy Tree • Discrepancies having the skill specified. Work Information Tree • Tasks having the skill specified. Component Replacement Tree • Tasks or discrepancies having the skill specified and having component

	removal records saved. Material Request Tree • Tasks or discrepancies having the skill specified and having part requirement details saved.
Exe. Ref. User Status	Open Log List Tree • Log cards and Packages (Major / Minor) with Exe. Ref. User Status matching the status specified in the editable field. Work Information Tree • Non-Standard task associated with the discrepancies. Component Replacement Tree • Non-Standard task associated with the discrepancies. Material Request Tree • Non-Standard task associated with the discrepancies.
Task User Status	Open Log List Tree • Log cards and Packages (Major / Minor) containing standard / Non-Standard tasks with user status matching the status specified in the editable field. Discrepancy Tree • Log Item/Discrepancies having Non-Standard tasks with the Task User status specified in the editable field. Work Information Tree • Tasks with User Status specified in the editable field. Component Replacement Tree • Task # and/or Log Item #/Discrepancy # having Component Removal details and with User Status matching the value specified in the editable field. Material Request Tree • Task # and/or Log Item #/Discrepancy # having part requirement details and having User Status matching the value specified in the editable field.
Eng Doc #	Open Log List Tree • Log cards and Packages (Major / Minor) containing the tasks having Engineering Document # reference matching the Eng Doc # specified in the editable field. Discrepancy Tree • Tasks with Engineering Document # reference matching the Eng Doc # specified in the editable field. Work Information Tree • Tasks with Engineering Document # reference matching the Eng Doc # specified in the editable field. Component Replacement Tree • Tasks having component removal details and with Engineering Document # reference matching the Eng Doc # specified in the editable field. Material Request Tree • Tasks having part requirement details and with Engineering Document # reference matching the Eng Doc # specified in the editable field.
On-Wing	Open Log List Tree • Log cards and Packages (Major / Minor) containing the tasks with Job Type “On-Wing”, that match the task # specified in the editable field. Discrepancy Tree • Tasks with Job Type “On-Wing”, that matches the value specified in the editable field.

	Work Information Tree • Tasks with Job Type “On-Wing”, that matches the value specified in the editable field. Component Replacement Tree • Standard / Non-Standard tasks with Job Type “On-Wing”, having component removal details and with task # matching the value specified in the editable field. Material Request Tree • Tasks with Job Type “On-Wing”, having part requirement details and with task # matching the value specified in the editable field.
Component Change	Open Log List Tree • Log cards and Packages (Major / Minor) containing tasks with Job Type “Component Removal”, that matches the Task # specified in the editable field. • Log Cards and Packages containing tasks with Component removal details such as Removed Part# or Installed Part#, matching with the task # specified in the editable field. Discrepancy Tree • Log cards/Discrepancies having associated Non standard tasks with Job Type “Component Removal”, that matches the value specified in the editable field. • Log cards/Discrepancies having associated Non standard tasks with the component removal details with either Removed part # or attached part #, that matches the Task# specified in the editable field. Work Information Tree • Task # with Job Type “Component Removal” and having Component removal details. • Task #s having the component removal details with either Removed part # or attached part #, that matches the value specified in the editable field. Component Replacement Tree • Tasks with Job Type “Component Removal”, having component removal details and with task # matching the value specified in the editable field. Material Request Tree • Tasks with Job Type “Component Removal”, with part requirement details saved and with task # matching the value specified in the editable field.
Routine	Open Log List Tree • Log cards and Packages (Major / Minor) containing the Standard tasks that matches the task # specified in the editable field. Discrepancy Tree • Non-Standard task associated with the discrepancies. Work Information Tree • Standard Tasks matching the task # specified in the editable field. Component Replacement Tree • Standard Tasks having component removal details and having task # matching the task # specified in the editable field. Material Request Tree • Standard Tasks having part requirement details and with task # matching the task # specified in the editable field.
Non-Routine	Open Log List Tree • Log cards and Packages (Major / Minor) containing the Non-Standard tasks that matches the task # specified in the editable field. Discrepancy Tree • Discrepancies with the Non-Standard tasks matching the task # specified in

	the editable field. Work Information Tree • Non-Standard tasks matching the task # specified in the editable field. Component Replacement Tree • Non-Standard Tasks having component removal details and having task # matching the task # specified in the editable field. Material Request Tree • Non-Standard Tasks having part requirement details and with task # matching the task # specified in the editable field.
Part Reqd.?	Open Log List Tree • Log cards, Package discrepancies, and Unprocessed discrepancies (Minor / Major) containing the discrepancies saved with the 'Part Reqd.? as Yes if no value is entered in the editable field • Log cards, Package discrepancies, and Unprocessed discrepancies (Minor / Major) containing the discrepancies saved with the 'Part Reqd.? as Yes that matches discrepancy in the editable field if entered. Discrepancy Tree • Discrepancies reported in the current Execution Reference document, containing the discrepancies saved with the 'Part Reqd.? as Yes if no value is entered in the editable field • Discrepancies reported in the current Execution Reference document, containing the discrepancies saved with the 'Part Reqd.? as Yes that matches discrepancy in the editable field if entered.

'Show Due Tasks' Tree

The "Show Due Tasks" tree structure displays the due tasks (tasks that are pending on an aircraft in a given time frame), overdue tasks, discrepancies and overdue discrepancies. Tasks are displayed under the node "Routine" and the discrepancies are displayed under the node "Discrepancies".. Using the tree structure, you can perform the following:

- You can select the tasks / discrepancies in the tree and create a new package.
- You can select the tasks / discrepancies in the tree and associate it to an existing package.

9. Click the '  ' icon in the "Open Items" tab to view the tree structure displaying the due tasks as nodes with check boxes. *See Figure 2.3*

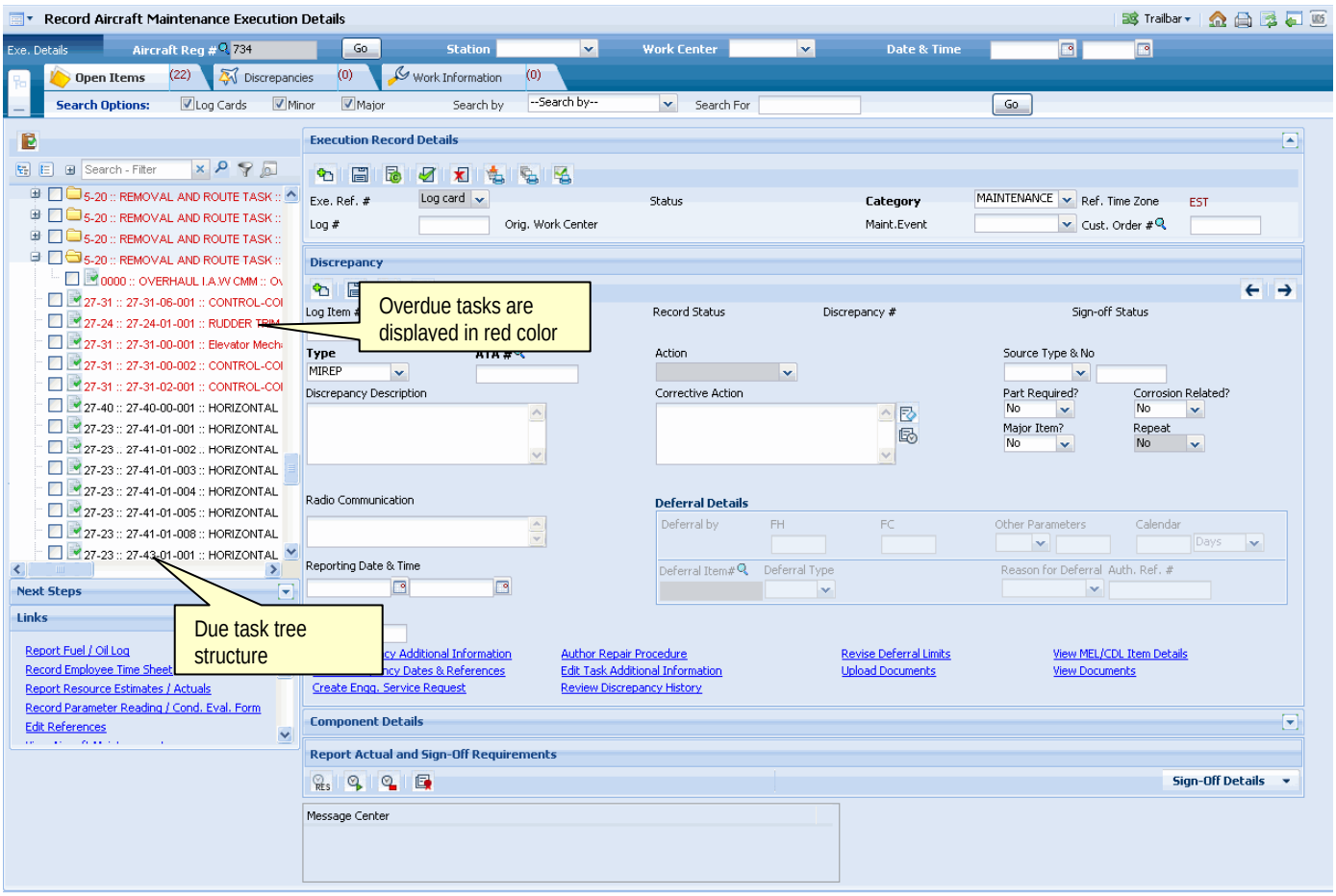


Figure 2.3 Due tasks tree structure

The tree is loaded with the Tasks (both Aircraft and Component Tasks) which are scheduled for the Aircraft and not yet complied. Tasks with following schedules are displayed.

- Schedule Date between the server date and the Horizon Date*.
- Schedule Date earlier than the server date. (i.e. Overdue tasks)

**Note: Horizon Date = Server Date + Planning Horizon (Days) defined for the Entity "All Packages" in the "Set Process Parameters" page of the "Common Masters" business component.*

Tree Structure:

If the task loaded in the tree has 'Base-Block' relationship with other tasks, the Block task is displayed as a parent node and the Base tasks are displayed as child nodes irrespective of the Schedule Date of the Block and Base tasks. For a task, its concurrent related task will not be displayed in the tree.

Note: When you select a parent node in the tree, the child nodes will be automatically selected. You can deselect the desired child nodes, without

deselecting the parent node. On clicking the "AME Save" icon, only the selected tasks are assigned to the package.

The tree structure is as follows:

Aircraft Reg #

i) T1 (Block Task)

- *T11 (Base Task)*
- *T12 (Base Task)*

ii) T2 (Non-Block Task)

iii) T3 (Non-Block Task)

iv) T4 (Component Removal Task)

- *T41 (Off-Wing Task)*
- *T42 (On-Wing Task)*

Tree Display Format:

The tasks of Job Type "Aircraft" are displayed in the following format:

ATA # :: Task # :: Task Desc. :: Trigg. Param. :: Rem. Value :: Sch. Date

The tasks of Job Type "On-wing", "Component Replacement" and "Off-Wing" in the following format:

ATA # :: Task # :: Task Desc. :: Trigg. Param. :: Rem. Value :: Sch. Date :: Part # :: Serial #

Creating package / associating task to package:

The system performs the following on creating a package or associating a task to the package by clicking the AME save icon '  ':

Predecessor Constrained check:

While creating a package and associating a task to the package if the selected Task (T1) have a 'Predecessor Constraint' relationship with any other Task (T2), then ensure that the Related Task (T2) is

- Complied at least once or
- The Related Task is allocated to any other Execution Document, such as Aircraft Maintenance Execution Ref. #, Hangar Work Order or Visit Package, for the same Aircraft.

Conflict Check:

Ensure that none of the selected tasks have ‘Conflict’ relation among them while creating a package. While associating a task to the package, ensure that none of the selected tasks have 'Conflict' relationship with the tasks which are already available in the package in either “Planned”, “In-Progress”, “In-Complete” or “Completed” status.

Duplicate Check:

On associating a task to the package, ensure that the selected task is not already available in the package in either “Planned”, “In-Progress”, “In-Complete” or “Completed” status.

Copy Details:

For the tasks that are added from the tree to the package, the system copies the following details from the corresponding pages of the “Maintenance Task” business component:

- Associates the task to the package and copies the task details to the “Work Information” section. If the task that is added has execution relation with other tasks, the execution related tasks are also added to the package.
- Copies the Resource and Sign-Off requirements from the “Edit Resource & Sign-Off Requirements” page.
- Copies the Part Requirements from the “Edit Part Requirements” page.
- Copies parameter reading requirements and conditional evaluational details from the “Edit Parameter Reading / Eval. Form” page.

In the **Execution Record Details** group box,

10. Use the **Exe. Ref. #** drop-down list box and select the package type of the aircraft maintenance execution reference. The Execution Ref # is displayed alongside and is hyperlinked to display the execution reference details.
11. Use the **Doc. Status** drop-down list and select the status of the document as Planned”, “In-Progress”, “Completed”, “Closed” or “Cancelled”.
12. Enter the **Log #** identifying the log leaf for which the Aircraft Maintenance Execution Reference details have been created.
13. Use the **Doc. Category** drop-down list box to select the category to which the aircraft maintenance execution reference belongs.
14. Use the **Work Center #** drop-down list box to select the work center for the aircraft maintenance execution reference.
15. The system displays the originating work center on which the package is created in the **Orig. Work Center** field.

16. Use the **Maint. Event** drop-down list box to specify the maintenance event for the Aircraft Maintenance Execution Reference.
17. Click the **Save** icon '  ' to save the aircraft maintenance execution reference.

The system ensures the following, if the aircraft maintenance execution reference has reference to a customer order to generate a material request with the modified values of **Work Center #** or **Execution Station** field:

- The Part # - Stock Status combination must be valid for the customer # defined in the "Customer" business component.
- The Part # - Warehouse combination must be valid for the customer # defined in the "Stock Administration" business component.

A unique number is generated by the system, to identify the aircraft maintenance execution reference.

The system allows modification of sign-off requirements based on the parameter "Allow modification of Task Sign-Off requirements" set in the "Define Process Entities" activity of the "Common Masters" business component.

The system displays the status of the aircraft maintenance execution reference as **Fresh**, at the top right corner of the page.

Note: The number to the right of the "Open Items" pushbutton is incremented by 1, to indicate that an additional aircraft maintenance execution reference has been created for the aircraft.

18. Click the **New** icon '  ' to create another aircraft maintenance execution reference.

Editing an aircraft maintenance execution reference

1. Select the **Open Items** pushbutton in the left navigation pane, to edit an existing aircraft maintenance execution reference. The Open Items tree interface appears. *See Figure 2.4.*

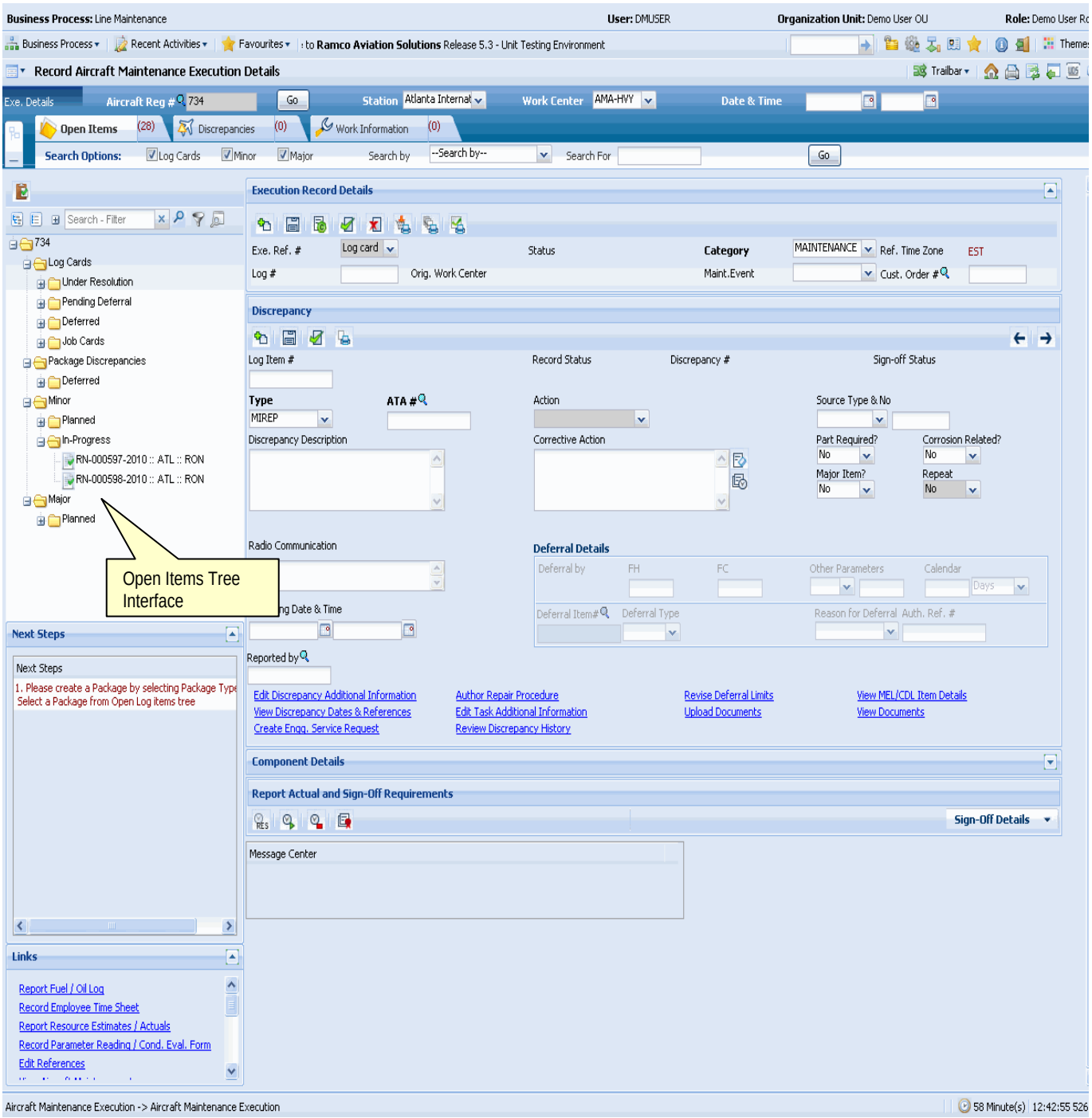


Figure 2.4 Editing an aircraft maintenance execution reference

The total count of distinct Aircraft Maintenance Execution References that are in “Planned”, In-Progress” and “Completed” status for the specified Aircraft Reg #, and that are created in the Aircraft Maintenance Execution Reference, is displayed in the “Open Items” navigation pane.

The system displays the text **Open Items** at the top of the navigation pane. The navigation pane will display the tree interface as completely exploded. The tree will have

the **Aircraft Reg #** as the parent node and **Log Cards**, **Open Discrepancies**, **Minor** and **Major** as the first level nodes. The list of aircraft maintenance execution references in "Planned", In-Progress" and "Completed" status is displayed, in the chronological order of the date and time of the aircraft maintenance execution reference #

2. Select the **Aircraft Maintenance Execution Reference** to be modified from the tree interface.

The details of the selected aircraft maintenance execution reference are displayed, in the **Execution Record Details** group box to the right.

3. Edit the required details of this execution reference.
4. Click the **Save** icon ' ' to save the edited details of the aircraft maintenance execution reference.
5. Click the **Next** and **Previous** icons to traverse to different aircraft maintenance execution references.

To Print Material Movement Document

- Click the "Print Material Movement" icon ' ' in the "Execution Record Details" group box to print all the material movement documents (MMD) for an Execution Ref #.

  The following documents will be considered for printing the MMD:

  a. The material requests with issue documents in "Fresh" status.

  b. The material requests with "MR Priority" set as "AOG" and with no issue documents created.

To print the package

- Click the "Print Package" icon ' ' in the "Execution Record Details" group box to print all the Task Cards of that package.
- Click the "Selective Print Package" icon ' ' in the "Execution Record Details" group box to print the selected task cards of that package.

Canceling an aircraft maintenance execution reference

1. Select the **Aircraft maintenance execution reference** to be cancelled from the tree interface.

The details of the selected aircraft maintenance execution reference are displayed, in the **Execution Record Details** group box in the right pane.

2. Click the **Cancel Log** icon ' ' to cancel the selected aircraft maintenance execution reference.

Note: You cannot cancel the package, if the aircraft is customer owned, the customer order for the maintenance of the aircraft exists and, the stage of the contract stage is "Firm".

Reporting a new discrepancy

Discrepancies denote the problems in the aircraft that are observed by the pilot or mechanic. A discrepancy will be associated to the Maintenance Report # after it is deferred. You can take action as No Fault, Cancel, Transfer or Close, in order to close a discrepancy.

1. Select the **Aircraft maintenance execution reference** for which a new discrepancy needs to be reported, from the tree interface.
2. Select the **Discrepancies** pushbutton in the left navigation pane. The tree interface will be loaded with all the discrepancies that are reported against the Aircraft Reg #. *See Figure 2.5.*
3. Enter the code identifying the log leaf which contains the discrepancy details, in the **Log Item #** field.
4. Use the **Type** drop-down list box to select the type of discrepancy that has been reported on the aircraft.
5. Enter the ATA chapter on which the discrepancy is reported, in the **ATA #** field.
6. Use the **Action** drop-down list box and specify the action taken against the discrepancy as "Defer", "Part Change-Close", "Cancel" or "Close".
7. Enter the textual description of the discrepancy, in the **Discrepancy Description** field.
8. Enter the details of the discrepancy communicated by the mechanic through radio communication, in the **Radio Communication** field.
9. Enter the description of the action to be taken, to resolve the discrepancy in the **Corrective Action** field.
10. Click the  icon next to the above field, to clear the description in the field.
11. Click the  icon to view the corrective action history.
12. The **Corrective Action History** page displays the Log Item Details such as **Log Item #, Log Item Description** and the corrective action details such as **Performed Date, Performed Station, Action** against the discrepancy, **Corrective Action** taken**, Ref. Document Type, Reference Document #, Rectified By / Rectifier Name, Inspected By / Inspector Name** and **Remarks** in the multiline.

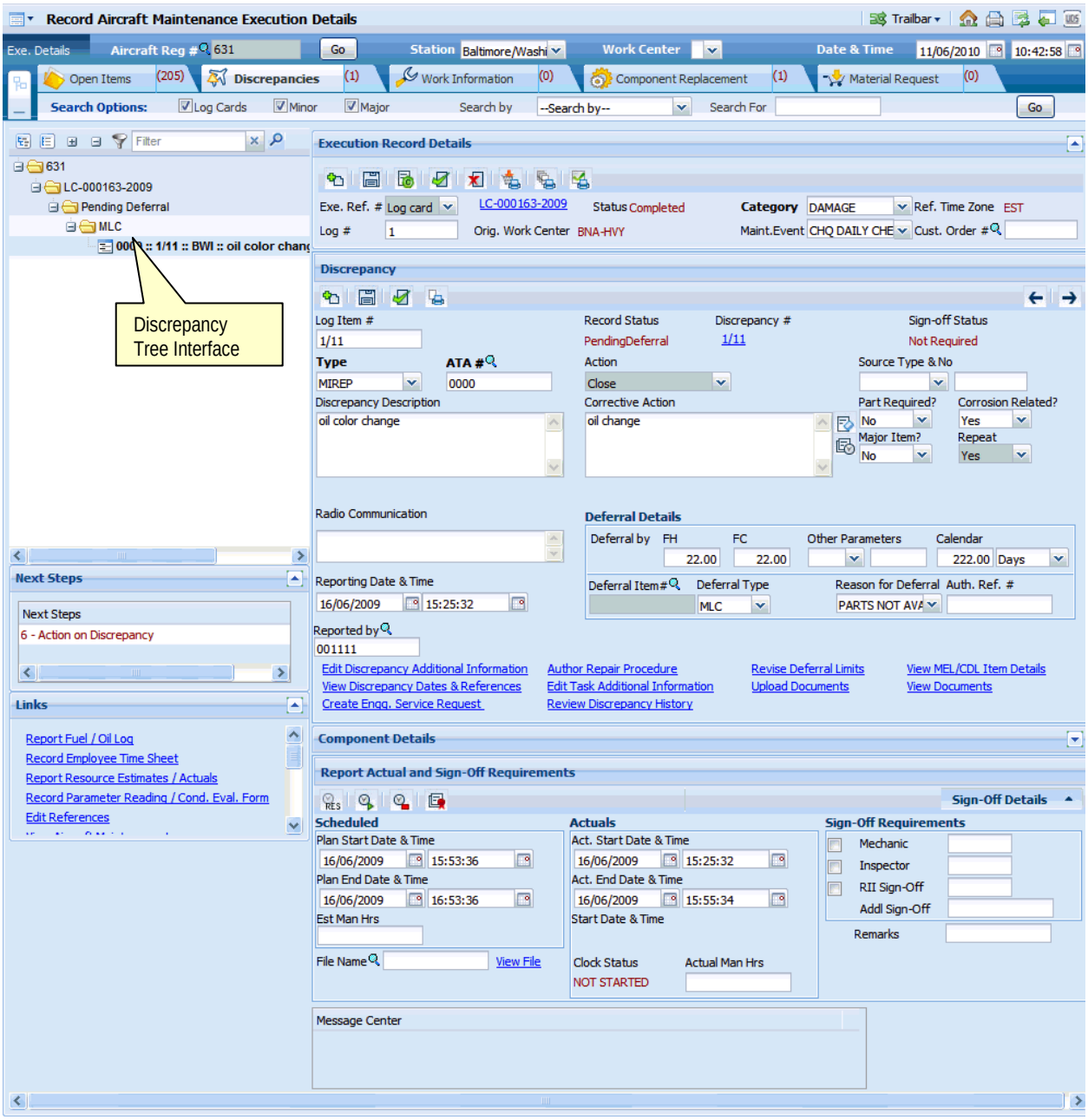


Figure 2.5 Reporting a new discrepancy

13. Click the **Save Discrepancy** icon '  ' to save the discrepancy.

Note: The aircraft maintenance execution reference details can also be saved by using the "Save" pushbutton in the "Discrepancy" group box.

Discrepancy details cannot be modified, if the 'Transient Status' of the discrepancy is set as "Hold" in the "Record Work Hold" page of the "Work Monitoring and Control" business component.

The count to the right of the **Discrepancies** pushbutton is incremented by 1, to indicate that an additional discrepancy has been added.

The count in the **Discrepancy Header** is also incremented by 1.

On saving the discrepancy, the system allows modification of sign-off requirements based on the parameter “Allow modification of Task Sign-Off requirements” set for the package type of the current Execution Ref #, in the “Define Process Entities” activity of the “Common Masters” business component.

14. Click the **New Discrepancy** icon ‘  ’ to create another discrepancy.

Deferring a discrepancy

1. Select the discrepancy to be deferred, from the tree. The details of the selected discrepancy are displayed, in the **Discrepancy** group box to the right.

2. From the **Action** drop-down list box, select **Defer**.

If **Action** is selected as **Defer** and **Recurring?** is set as “Yes”, the system displays the following fields, which you are to enter:

3. Enter the duration for which the discrepancy must be deferred, in the **Deferral Duration and Time** field. Use the drop-down list box provided alongside this field, to specify the unit of time for deferring discrepancies.

4. Enter the deferral value for the discrepancy in terms of flight hours in the **Deferral by (FH)** field.

5. Enter the deferral value for the discrepancy, in terms of flight cycles in the **Deferral by (FC)** field.

6. Use the **Other Parameters** drop-down list box to specify the other parameters other than FH and FC for the discrepancy

7. Enter the deferral value of the discrepancy in terms of other consumption parameters of the Aircraft Reg # other than FH in the **Other Parameter Value** field.

8. Enter the duration for which the discrepancy must be deferred in terms of calendar days in the **Calendar** field.

9. Enter the number identifying the deferred item reported on the aircraft, in the **Deferral Item #** field.

10. Use the **Deferral Type** drop-down list box to select the deferral type reported on the aircraft.

11. Use the **Reason For Deferral** drop-down list box to specify the reason for deferring the discrepancy.

12. Enter the deferral authorization number in the **Auth Ref** # field.

13. Use the **Repeat** drop-down list box to specify whether the discrepancy needs to be re-inspected at specified intervals

14. Select the source of the discrepancy as “Task” or “Discrepancy” in the **Source Type** drop-down list box and enter the **Source #.**

15. Enter the code identifying the source of the discrepancy in the **Source #** field.

16. Use the **Part Required?** drop-down list box to specify if the parts are required or not to close the discrepancy.

17. Use the **Major Item?** drop-down list box and specify whether the item on which discrepancy is reported, is a major item or not.

18. Use the **Corrosion Related?** drop-down list box and select “Yes” or “No” to specify whether the discrepancy reported is related to corrosion or not.

19. Click the **Confirm Deferral** icon ‘  ’ to save the deferred discrepancy.

Note: This action is workflow-enabled. Notification messages can be sent as per the settings you have defined in the "Workflow Management" business component.

Deferral of the discrepancy cannot be confirmed, if the ‘Transient Status’ of the discrepancy is set as “Hold” in the “Record Work Hold” page of the “Work Monitoring and Control” business component.

Closing a discrepancy

1. Select the discrepancy to be closed, from the tree. The detail of the selected discrepancy is displayed, in the **Discrepancy** group box to the right.

2. From the **Action** drop-down list box, select **Close**.

3. Enter either a description of the action to be taken to resolve the discrepancy, in the **Corrective Action** field.

4. Click the  icon provided next to the above field to launch the corrective action history.

5. Click the **Save Discrepancy** icon to save the discrepancy.

If you had entered the **Corrective Action** field, the system will create and display non-standard task # in the **Task #** field.

Transferring a discrepancy

1. Select the discrepancy to be transferred from the tree. The details of the selected discrepancy are displayed, in the **Discrepancy** group box to the right.

2. From the **Action** drop-down list box, select **Part Change-Close**.
3. Enter the **Part #** of the component fitted in the position code.
4. Enter the **Serial #** of the part to which the discrepancy has been transferred.
5. Enter the ID of the component to which the discrepancy has been transferred, in the **Transfer To: Component #** field.
6. Enter the **Position Code** in the aircraft from which the component must be removed.
7. Enter the number identifying the level at which the position code occurs in the aircraft from which the component must be removed, in the **Level Code** field.
8. Enter either a description of the action to be taken, to resolve the discrepancy, in the **Corrective Action** field.
9. Click the **Save Discrepancy** icon to save the discrepancy.

The system transfers the discrepancy details to the selected component.

The system updates the record status of the Discrepancy as “Transferred” and replaces the “Component Details” section with the “Component Replacement” section by copying the values of Part # and Serial # to Removed Part # and Serial # in the “Component Replacement” section.

Canceling a discrepancy

1. Select the discrepancy to be **cancelled** from the tree. The details of the selected discrepancy are displayed, in the **Discrepancy** group box to the right.
2. From the **Action** drop-down list box, select **Cancel**.
3. Click the **Save Discrepancy** icon to save the discrepancy.

Editing a discrepancy

1. Select the **Aircraft maintenance execution reference** for which discrepancy details are to be modified, in the tree interface.

The count of discrepancies recorded for the selected aircraft maintenance execution reference # is displayed alongside the **Discrepancies** pushbutton.

2. Select the **Discrepancies** pushbutton in the left hand navigation pane, to modify an existing discrepancy. The discrepancy tree interface appears. *See Figure 2.6.*

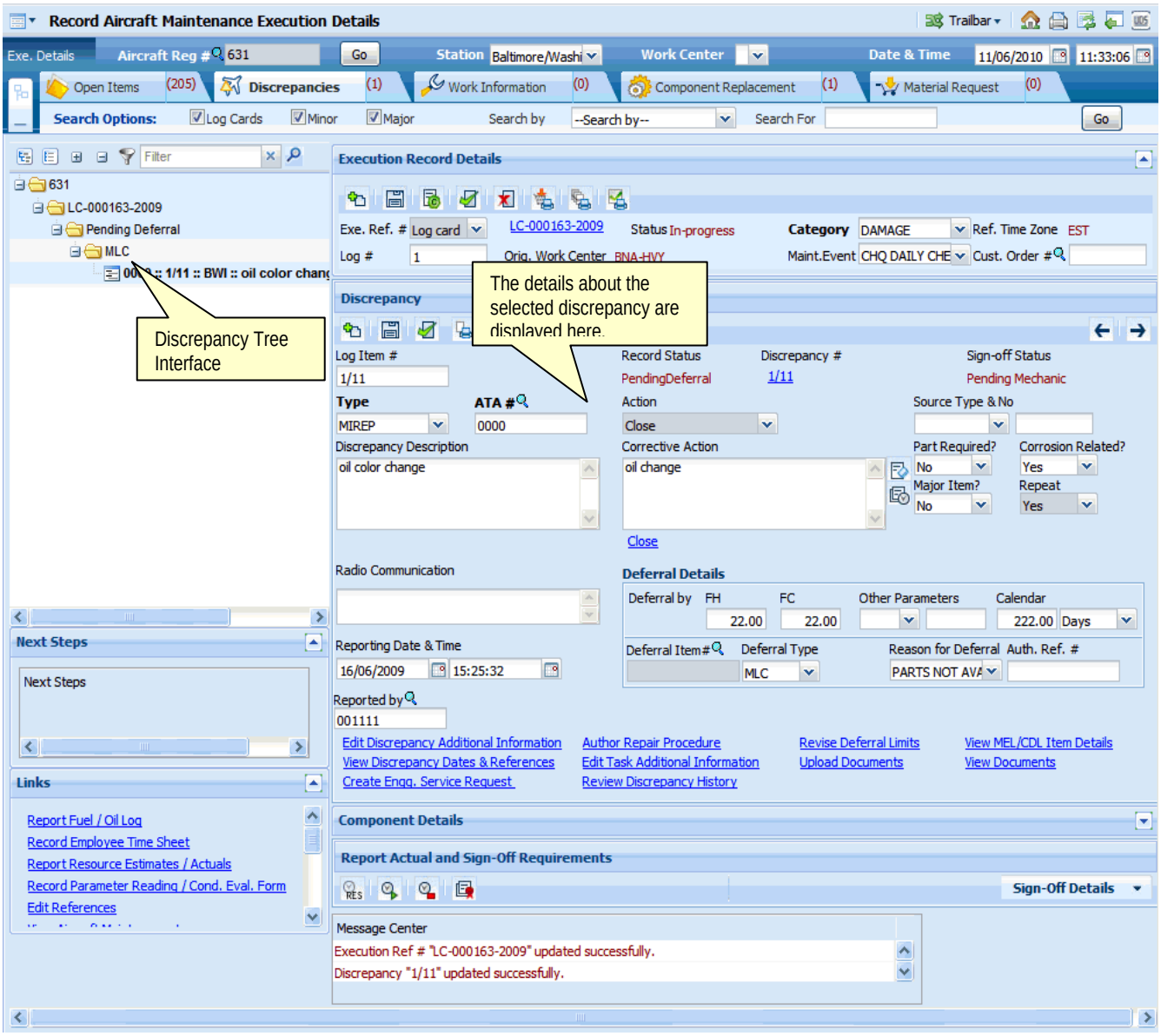


Figure 2.6 Editing a discrepancy

The system displays the text “Discrepancies” at the top of the navigation pane. The navigation pane will display the tree interface as completely exploded. The tree will have the “Exe. Ref. #” and “Aircraft Reg #” as the parent nodes, with all the records displayed as per the defined format:

Note: If the Log Item # is not available for the discrepancy, then the system displays the Discrepancy # in the tree interface.

Exe. Ref. #: The system displays the Log Item # / Discrepancies associated to the selected Execution Reference # with document status “Planned”, “In-Progress” and “Completed”, as the first-level nodes with the following values.

i) Pending: Log Item # / Discrepancies with record status “Pending” and “Under Resolution” are displayed under this node.

ii) Pending Deferral: Log Item # / Discrepancies with record status “Pending Deferral” are displayed under this node.

iii) Deferred: Log Item # / Discrepancies with record status “Deferred” are displayed here.

iv) Closed: Log Item # / Discrepancies with record status "Transferred", "Cancelled" and "Closed" are displayed under this node.

Aircraft Reg #: The system displays the Log Item as follows:

Log Cards: For the specified Aircraft Reg #, the system displays the Log Item # / Discrepancies which are associated to the Aircraft Maintenance Execution References of Doc Type “Log Cards” and document status “Planned”, “In-Progress” and “Completed”, under different nodes as follows:

i) Under Resolution: Log Item # / Discrepancies with record status “Pending” and “Under Resolution” are displayed under this node.

ii) Closed: Log Item # / Discrepancies with record status "Transferred", "Cancelled" and "Closed" are displayed under this node.

iii) Pending Deferral: Log Item # / Discrepancies with record status “Pending Deferral” are displayed under this node.

iv) Deferred: Log Item # / Discrepancies with record status “Deferred” are displayed here.

3. Select the **Discrepancy** to be modified in the tree interface.

The details of the selected discrepancy are displayed, in the **Discrepancy** group box to the right.

Note: The discrepancies with ‘Transient Status’ as “Hold”, are highlighted with the Exclamatory Icon ‘ ’, in the Discrepancy tree structure.

4. Modify the required details of this **Discrepancy**.
5. Click the **Save Discrepancy** icon to save the modified details of the discrepancy.
6. Click the **Next** and **Previous** icons to traverse to different discrepancies.

Sign-off Requirements

1. Click the icon in the **Record Actual & Sign-Off Requirements** group box, to start the clock.
2. Click the icon to reset the clock.

3. Click the  icon to end the clock.
4. Enter the Plan Start Date & Time, Sch. End Date & Time, Actual Start Date & Time and Actual End Date & Time in the Sign-Off Requirements group box.
5. Check the Mechanic, Inspector and RII-Sign-Off boxes to perform mechanic, inspector and RII sign-off of the work units / tasks / subtasks respectively.
6. Enter the corresponding employee codes in the editable fields provided alongside the respective check boxes.
7. Enter the code identifying the employee who performs additional sign-off in the **AdII Sign Off** field.

If a Non Standard Task # generated with the source as a Discrepancy # and if a corrective action is available for the discrepancy and if any of the check boxes 'Mechanic/ Inspector/ RII Sign off' is in checked condition without any Employee # available against the respective checked box, then the sign-off status for that Corrective Action is updated based on the logic explained in the following table:

Resource Group			Sign-Off Status
Mechanic	**Inspector**	**RII**	
Checked	Not Checked	Not Checked	Pending Mechanic
Not Checked	Checked	Not Checked	Pending Inspector
Not Checked	Not Checked	Checked	Pending Inspector
Checked	Checked	Not Checked	Pending Mechanic & Inspector
Checked	Not Checked	Checked	Pending Mechanic & Inspector
Not Checked	Checked	Checked	Pending Inspector
Checked	Checked	Checked	Pending Mechanic & Inspector

Note: If none of the sign off check boxes is checked then the sign-off status is updated as "Not Required".

The system displays the **Clock Status** as "Clock Direct", "Clock Indirect", "Clock - Direct & Indirect" or "Not Started".

To proceed further,

- Select the **Edit Discrepancy Additional Information** link to edit the discrepancy additional information.
- Select the **Author Repair Procedure** link to modify the non-standard task details.

- Select the **Revise Deferral Limits** link to revise the deferral limits set for the discrepancy.
- Select the **View MEL/CDL Item Details** at the bottom of the page to view the deferral item details.
- Select the **View Discrepancy Dates & References** link to view the task / discrepancy date and reference details.

Editing discrepancy additional information

You can edit the discrepancy additional details including the user-defined attributes of the discrepancy. You can enter the engineering advice note number, fault number and specify whether the discrepancy caused a delay in the flight schedule. The details captured in this page may be used for reporting purposes.

1. Select the **Edit Discrepancy Additional Information** link in the **Discrepancy** section. The **Edit Discrepancy Additional Information** page appears. *See Figure 2.7.*

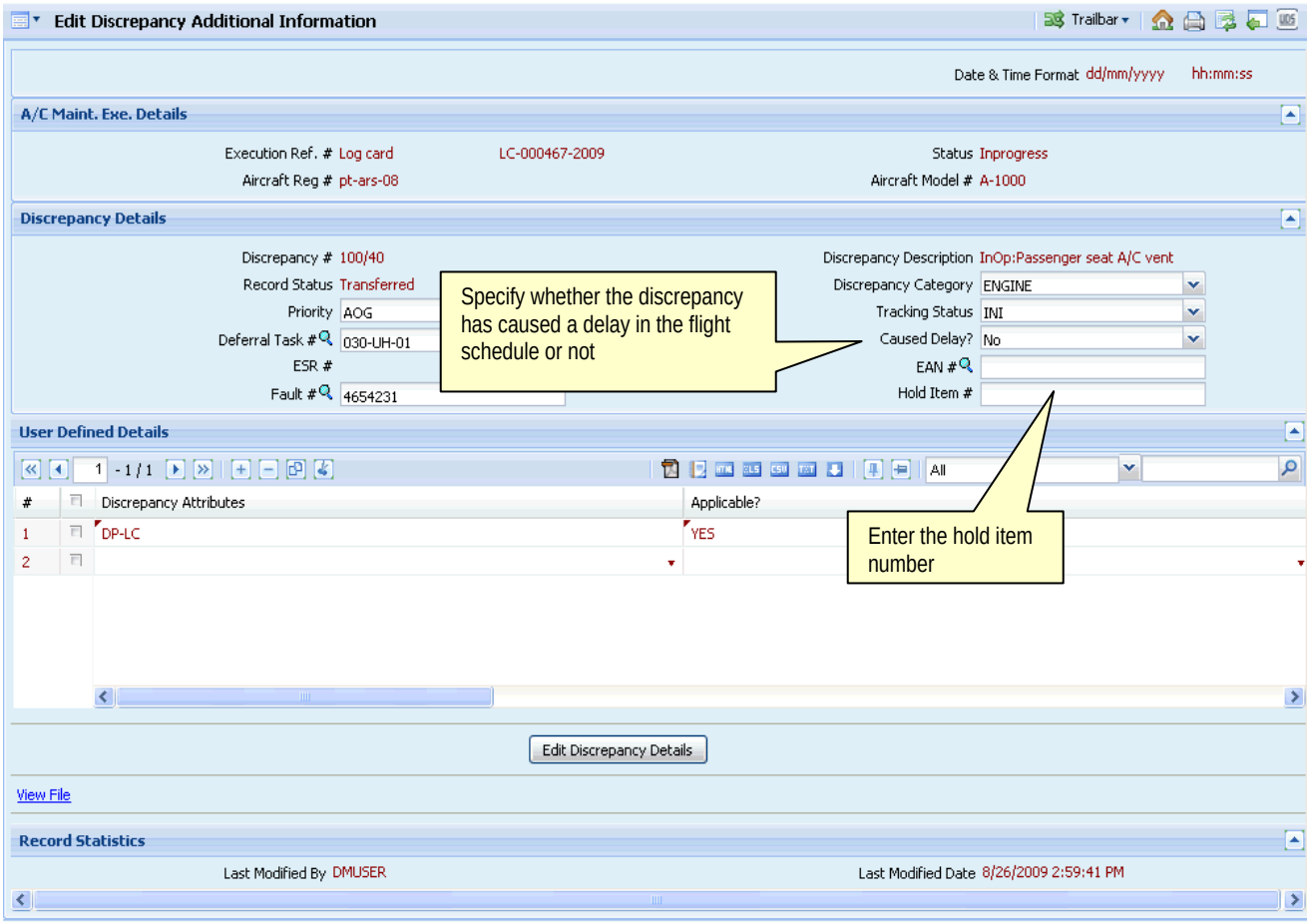


Figure 2.7 Editing discrepancy additional information

The system displays the **Execution Ref. #, Status**, of the Execution Ref. #, **Aircraft Reg #** and **Aircraft Model #** in the **A/c Maint. Exe. Details** group box.

2. Specify the **Discrepancy Category** and enter the **Hold Item #** in the **Discrepancy Details** group box.
3. Use the **Priority** drop-down list box to specify the priority for the discrepancy.
4. Use the **Tracking Status** drop-down list box to assign the tracking status to the discrepancy.
5. Enter the **Deferral Task #** identifying the task that is to be carried out to ensure that the reported discrepancy is processed or inspected before deferral.
6. Use the **Caused Delay?** drop-down list box and select “Yes” or “No” to indicate whether the discrepancy caused a delay in the flight schedule or not.
7. Enter the **Fault #** that is applicable for the discrepancy being reported.
8. Enter the number identifying the engineering advice note, which is a response to the problem reported in the engineering service request, in the **EAN #** field.

In the **User Defined Details** multiline,

9. Specify the attribute for the discrepancy in the **Discrepancy Attributes** drop-down list and the applicability of the discrepancy in the **Applicable?** drop-down list box.
10. Enter the user-defined values regarding the discrepancy.
11. Click the **Edit Discrepancy Details** pushbutton to edit the discrepancy additional details.

Signing off work information

1. Select the **Work Information** pushbutton in the left navigation pane. The work Information tree interface appears. *See Figure 2.8.*

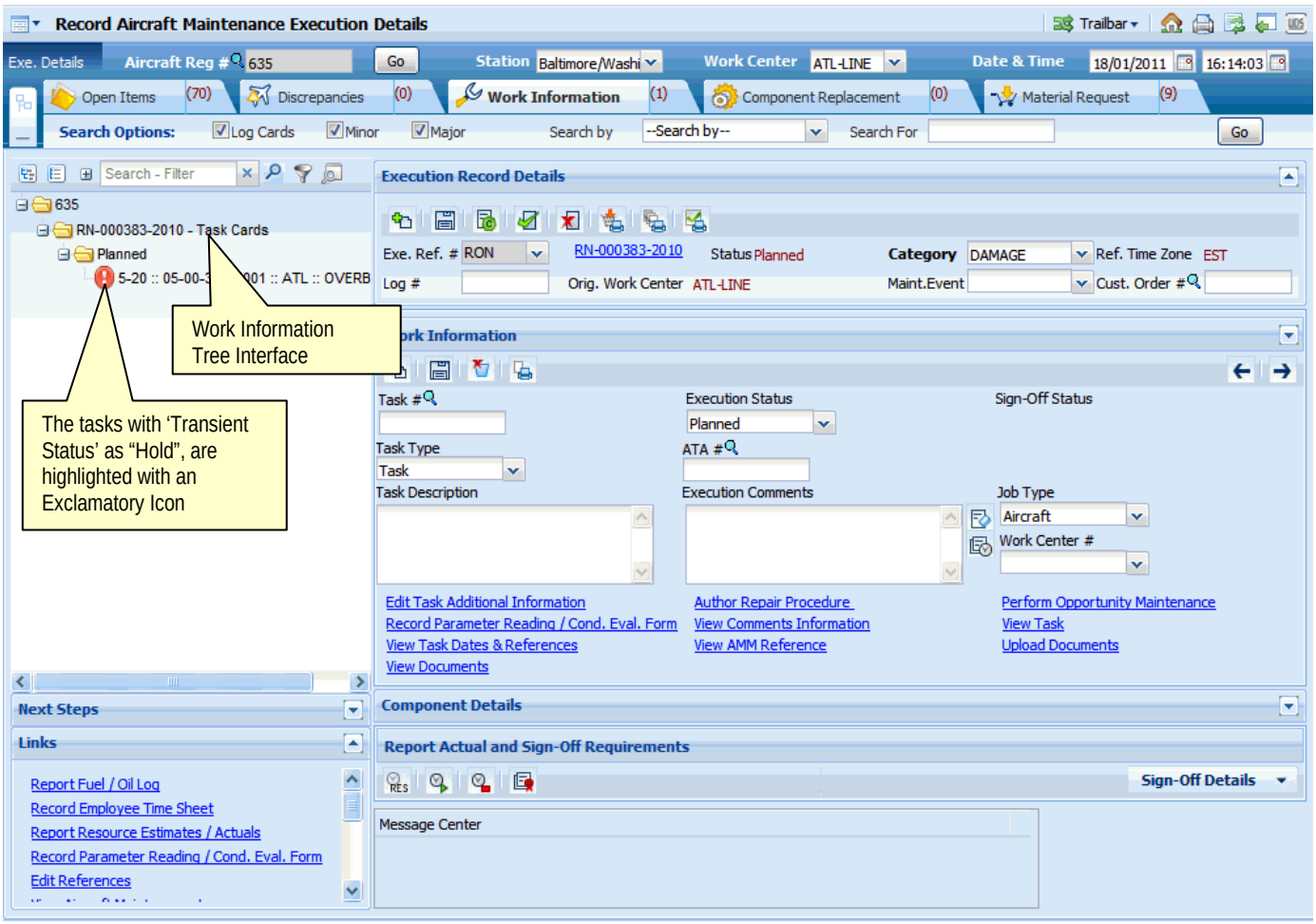


Figure 2.8 Signing off work information

The count of work unit(s) that is associated to the aircraft maintenance execution reference # is displayed alongside the "Work Information" pushbutton.

2. Select **Work Information** under the node **Pending**, to complete the task for the work unit.

The details of the selected work information are displayed, in the **Work Information** group box to the right.

3. The system displays **Work Unit #**, **Work Unit Type**, **Job Type**, **Sign-Off Status**, **Work Unit Description and Discrepancy/ Maint. Report #** in the respective fields.

4. Click the **Save Work Information** icon to save the details of work information.

- The system updates the parameter values for every sign off of the task or subtask, if the "Parameter Recording" drop-down list box is selected as "Mandatory" in the "Edit Parameter Reading Requirements" page of the "Maintenance Task" business component.

Recording sign-off and work completion details

This page allows you to sign-off the tasks / sub tasks in bulk. The sign-off details are retrieved based on the search item such as task number, task description, ATA number, work area, zone, skill and execution. Sign-off can be performed either by mechanic, inspector or mechanic and inspector, RII. RII sign-off is performed only at task level.

You can specify whether the task is completed on successful completion of the sign off, indicate the date and time at which the task is to be completed and update the sign-off and work completion details.

1. Click the "  " icon in the "Work Information" section. The "Record Sign-Off & Work Completion" page appears. *See Figure 2.9.*

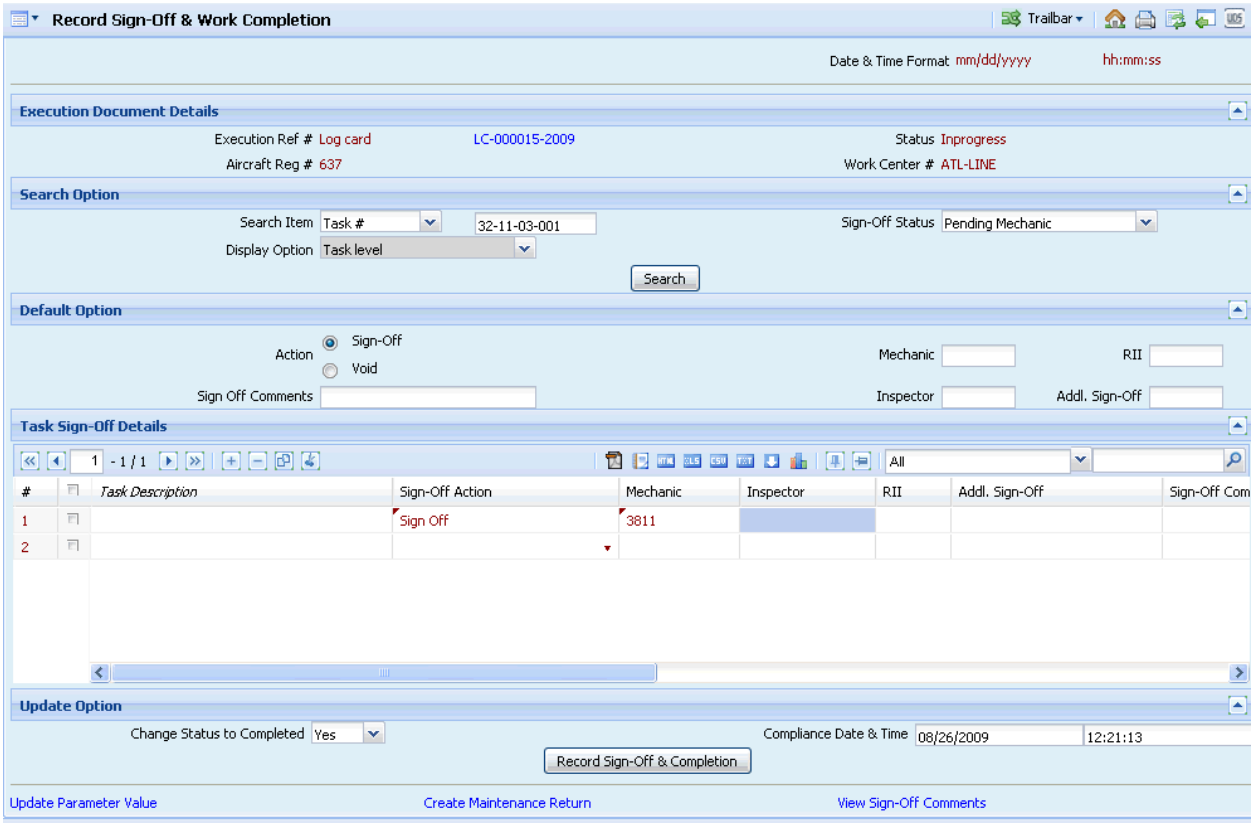


Figure 2.9 Signing off of bulk work unit/ task/subtask.

The system displays the **Execution Ref #, Status** of the Execution Ref #, Aircraft Reg # and the **Work Center #** in the **Execution Document Details** group box.

2. In the **Search Option** group box, specify the **Search Item** as "Task", "Task Desc.", "ATA", "Work Area", "Zone #", "Skill" or "Execution Phase".

3. Select the **Sign-Off Status** as "Pending Inspector", "Pending Mechanic", "Pending Mech. & Insp.", "Pending Signoff", "Pending RII", "Signed Off" or "Not Required".

4. Specify the **Display Option** as “Task level” or “Subtask level”.

5. In the **Default Option** group box, select the “Sign-Off” or “Void” in the **Action** field to indicate the sign-off action of the task / sub task.

6. Enter the code of the employee who performs sing-off in the “**Mechanic**”, “**Inspector**”, “**RII”** and “**Addl. Sign-Off**” fields.

Note: The fields “RII” and “Addl. Sign-Off” are visible only if the “Display Option” is selected as “Task Level”.

7. Enter the **Sign Off Comments**, if any.

8. In the **Task Sign-Off Details** multiline, select the **Sign-Off Action** as “Sign-Off” or “Void”.

9. Enter the code of the employee who performs sign-off in the “Mechanic”, “Inspector”, “RII” and “Addl. Sign-Off” fields.

10. Enter the **Sign Off Comments**, if any.

11. In the **Update Option** group box, specify if the status of the task is changed to “Completed” in the **Change Status to Completed** drop-down list box.

12. Enter the date and time at which the task is completed in the **Compliance Date & Time** field.

13. Click the **Record Sign-Off & Completion** pushbutton to record the sign-off and work completion details.

Note: The sign-off details of the task and sub tasks cannot be modified, if the ‘Transient Status’ of the task is set as “Hold” in the “Record Work Hold” page of the “Work Monitoring and Control” business component.

To proceed,

- Select the **Record Parameter Reading / Cond. Eval. Form** link to record the parameter values and conditional evaluation details of the parameters..
- Select the **Create Maintenance Return** link to create a maintenance return document for the AME.
- Select the **View Sign-Off Comments** link to view the sign-off comments.

Editing work information

1. Select the **Aircraft maintenance execution reference** for which work information details are to be modified, in the tree structure.

The count of work unit(s) that is associated to the aircraft maintenance execution reference # is displayed alongside the “Work Information” pushbutton.

2. Select the **Work Information** pushbutton in the navigation pane. The Work Information tree interface appears. *See Figure 2.10.*

3. The system displays the text **Work Information** at the top of the navigation pane.

The left navigation pane will display the tree interface, in completely exploded form. The selected **Aircraft Maintenance Execution reference #** will be the parent node in the tree and ”Task Cards”, “Discrepancies” will be the first-level nodes.

The system displays the work units and Log Item # associated to the Execution Reference # under different nodes, based on the value selected in the “Search By” drop-down list box in the “Search Options” group box: Refer to the topic “Tree Interface display logic” for more details.

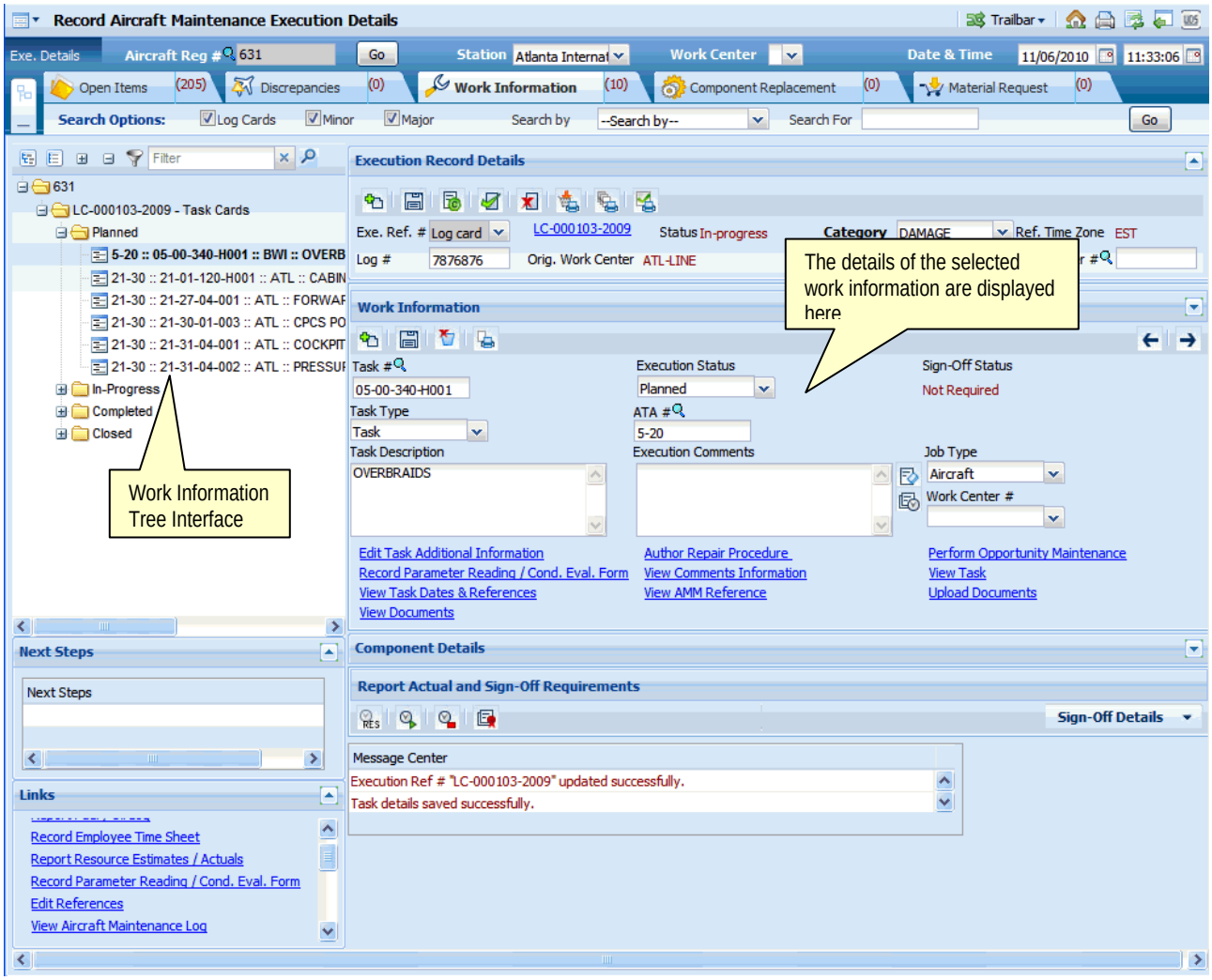


Figure 2.10 Editing work information

The tree structure is as follows:

Aircraft Maintenance Exe Ref #

Task Cards:

i) Planned
ii) In-Progress
iii) In-Complete
iv) Completed
v) Pre-Closed
vi) Closed
vii) Deferred
viii) Cancelled

Discrepancies: For the Aircraft Reg #, the system retrieves and displays the Log Item # / Discrepancies having record status “Under Resolution”, “Closed”, “Cancelled”, Pending Deferral” and “Deferred” under respective folders.

a. Log Cards:

i) Under Resolution
ii) Pending Deferral
iii) Deferred
iv) Closed

b. Package Defects:

i) Under Resolution
ii) Pending Deferral
iii) Deferred
iv) Closed

c. Unprocessed Discrepancies

i) Pending
ii) Pending Deferral
iii) Deferred

On clicking any ‘Work Unit #’ node under the ‘Task Cards’ folder of the tree structure,

i) the system retrieves the related details of the respective work unit, such as Work Unit #, Work Unit Description, ATA, Job Type, Sign off information, actual start date, end date, planned start date, end date, etc. and displays into the respective fields.

ii) If the Job Type of the task # is “Component Removal”, the system retrieves the task #, task description, and other related details including the sign-off requirements in the right pane, and also replaces the “Component Details” section with the “Component Removal” section, by copying the part # and serial # in the 'Removed Part #' and 'Removed Serial #' fields.

The system displays a number to denote the count of tasks that are in **Pending** and **Incomplete** execution status, in the **Work Information** group box. It is displayed as follows: *You have <count>* more task to be performed.

Note: If any information about the work unit is not available, the system indicates it by displaying [NA] in the format above. The Non-standard Task having the source as Discrepancy # is not displayed in the tree.

4. Select the **Work Information** to be modified in the tree interface.

The selected work information is displayed, in the **Work Information** group box to the right.

Note: The tasks with ‘Transient Status’ as “Hold”, are highlighted with the Exclamatory Icon ‘ ’, in the tree structure.

5. Modify the required details of the Work Information.
6. Click the **Save** icon to save the modified details of the work information.
7. Click the Next and Previous icons to traverse to different work information.

Recording a new work information

1. Select the Aircraft maintenance execution reference for which new work information is to be added, from the tree interface.
2. Select the Work Information pushbutton in the left navigation pane. The Work Information group box appears. *See Figure 2.11.*

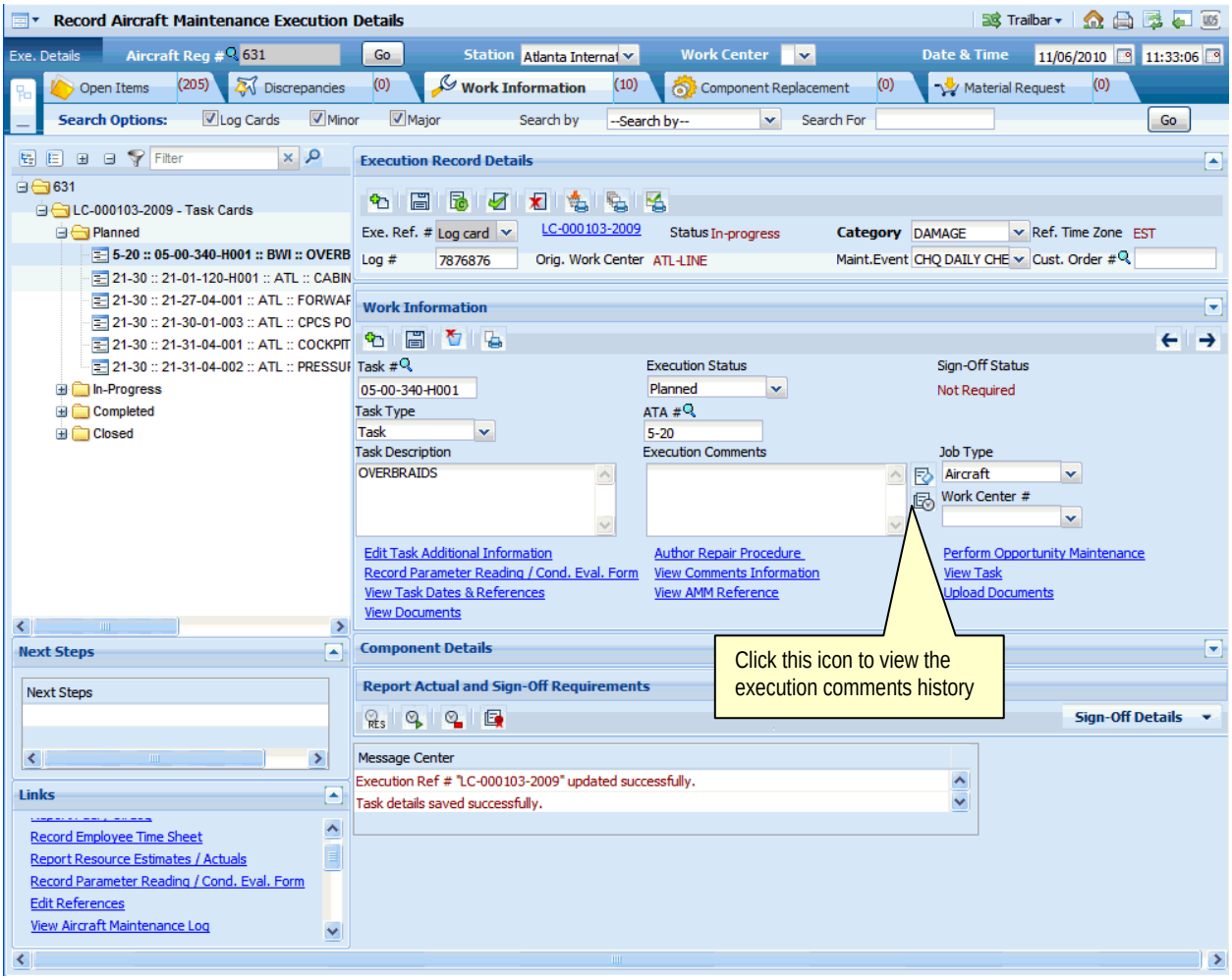


Figure 2.11 Recording new work information

3. Enter the number identifying the work unit to be performed on the aircraft, in the **Work Unit #** field.

4. Use the **Work Unit Type** drop-down list box to select the type of the work unit

5. Enter the description of the work unit, in the **Work Unit Description** field.

6. Specify the **Execution Status** of the maintenance report.

Note: If the "Enforce Sign-off?" is set as "Yes" for the selected Doc. Type in the "Set Process Parameters" page of the "Common Masters" business component and if any sign off is pending for the subtasks associated to the work unit in the Aircraft Maintenance Execution Reference, then the execution status must not be set as "Completed" or "Closed".

The Execution Status of the work unit must not be set as "Completed", "In Complete", "Pre-closed", "Closed", "Deferred" or "Cancelled", when the Start Clock or Reset Clock is initiated.

7. Select the **Job Type** as **Aircraft**, **On Wing**, or **Component Removal**. The Job Type is set as “Aircraft” if the Applicability of the work unit is “Aircraft” and “On-Wing” or “Component Removal” if the Applicability is “Engine” or “Component”.

8. Enter the ATA chapter defined for the work unit, in the **ATA #** field.

9. Enter the date and time on which the maintenance activity was completed, in the **Compliance Date & Time** field.

The system displays the employee number of the person who recorded the sign-off comments, in the **Recorded By** field.

10. Enter the comments regarding the execution of the work units on the maintenance report, in the **Execution Comments** field.

11. Select the **Work Center** for the Aircraft Maintenance Execution Ref #. The work center retrieved here cannot be modified if the “Allow Package execution across multiple primary Work Centers” is set as “No” in the “Set Process Parameters” page of the “Common Masters” business component.

Note: If the material requests are available in “Authorized”, “Fresh” or “Draft” status and the material issues are available in “Fresh” status for the tasks associated to the A/C Maint. Exe. Ref. #, then

   a. *if the issue warehouse of the modified work center is same as the issue warehouse of the existing work center of the tasks, then the Material requests that have been already created for the tasks must be retained.*

   b. *if the Issue warehouse of the modified work center is different from the issue warehouse of the existing work center of the tasks, then the system*

      - *Short-closes the material requests and cancels the material issues that have been created for the task.*
      - *Updates the work center for the Aircraft Maint. Exe. Ref. # and the tasks.*
      - *Creates a new material requests for the short closed quantity from the issue warehouse of the modified work center for the task for the Aircraft Maint. Exe Ref. #.*

12. Click the  icon next to the above field, to clear the description in the field.

13. Click the  icon provided next to the above field to launch a pop-up window which displays the execution comments history.

The **Execution Comments History** window displays the work unit details such as **Work Unit #, Work Unit Description** and the comment details such as **Sub Task Description, Comments Type, Comments, Comment Date, Employee # / Employee Name, Skill #** and **Resource Group** in the multiline.

14. Click the **Save** icon to save the work information.

The number to the right of the **Work Information** pushbutton is incremented by 1, to indicate that an additional work unit has been added for the aircraft maintenance execution reference.

If **Work Unit Type** is selected as **New Task**, the system generates a non standard task.

When the user adds / modifies the task and clicks the “Save” icon, the system saves the task either with the sign-off requirements defined for the task at task level or with the user selected sign-off requirements, based on the parameter “Allow modification of Task Sign-Off requirements” for the package type of the current Execution Ref #, set in the “Define Process Entities” activity of the “Common Masters” business component.

15. Click the **New Task** icon in the **Work Information** group box to record new work information.

To print task card

- Click the “Print Task Card” icon ‘  ’ in the “Work Information” group box, to print the task card details.

Canceling work information

1. Select the **Work Information** to be cancelled from the tree structure.

The selected work information is displayed, in the **Work Information** group box to the right.

Note: You can cancel the work units whose statuses are “Pending” and for which “Sign- Off” is not completed.

2. Click the **Cancel** icon ‘  ’ to cancel the selected work information.

Note: The user should have access rights to cancel work information.

You cannot delete the task, if the Transient Status of the task is “Hold”.

To proceed further,

- Select the **Edit Task Additional Information** link to edit the task additional information.
- Select the **Author Repair Procedure** link to modify the non-standard task details.
- Select the **Perform Opportunity Maintenance** link to perform opportunity maintenance details.
- Select the **Record Parameter Reading / Cond. Eval. Form** link to record the parameter values and conditional evaluation details of the parameters.
- Select the **View Task** link to view task details.

- Select the **View Comments Information** link to view comments.
- Select the **View Task Dates & References** link to view the task / discrepancy date and reference details.
- Click the **View AMM Reference** link to view the aircraft maintenance manual (AMM) reference details.
- Select the **Upload Documents** link to upload the documents.
- Select the **View Associated Doc. Attachments** link to view the associated document attachments.

Editing task additional information

Using this page, you can capture additional information for a task,

1. Select the **Edit Task Additional Information** link in the **Work Information** section. The **Edit Task Additional Information** page appears. *See Figure 2.12.*

Figure 2.12 Editing task additional information

The system displays the Exe. Ref. #, **Status** of the Execution Ref. # and Aircraft Reg # and Aircraft Model # in the **Aircraft Maint. Exe. Details** group box.

2. Use the **User Status** drop-down list box and specify the user-defined status of the task.
3. Use the **Task Category** drop-down list box to specify the category to which the task belongs.
4. Select the **Execution Phase** of the task from “Regular”, “Preparatory” or “Post Flight” or any active quick code defined for the Quick Code type “Execution Phase” in the “Maintenance Task” business component.
5. Use the **Priority** drop-down list box to specify the priority for the task.
6. Select the **Expense Type** of the task as “Revenue” or “Capital”.
7. Enter the **CAPEX Proposal #** of the Aircraft maintenance Execution reference.
8. Enter the **Zone #** and the **Work Area #** where the task is executed.
9. Select the **Maintenance Type** of the task as “Inspection”, “Repair”, “Overhaul”, “Inspection” or “Others”.
10. The system displays the **Source** of the task, Forecast No available for the task, Planning Type of the task and the external **Reference #** maintained against the discrepancy.
11. In the **Cost Additional Information** group, the system displays the actual and estimated Labor Cost, Material Cost and Resource Cost of the task.
12. Enter the total **Misc. Cost** reported for the task.
13. Click the **Edit Task Details** pushbutton to edit the task additional information.

Note: Task details cannot be modified, if the ‘Transient Status’ of the task is set as “Hold” in the “Record Work Hold” page of the “Work Monitoring and Control” business component.

Recording a component replacement

1. Select the **Aircraft Maintenance Execution Reference** for which new component replacement is to be carried out from the tree interface.
2. Select the **Component Replacement** pushbutton in the navigation pane. The **Component Replacement** group box appears. *See Figure 2.13.*

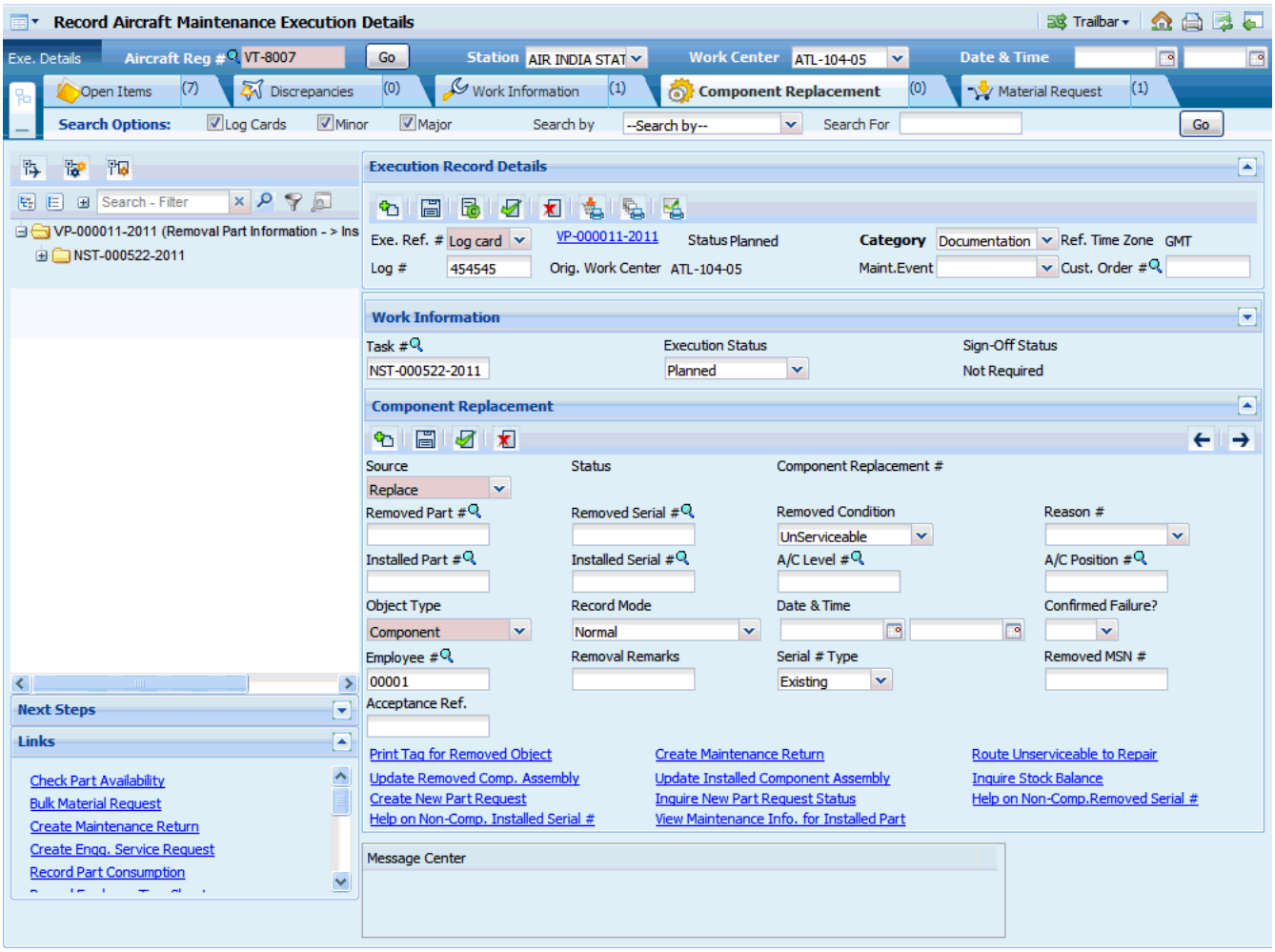


Figure 2.13 Creating a new component replacement

3. Enter the part for which the replacement details must be recorded, in the **Removed Part #** field.

4. Enter the serial number of the part for which the replacement details must be recorded, in the **Removed Serial #** field.

5. Enter the part number to be installed in place of the part specified in the Removed Part #, in the **Installed Part #** field.

6. Enter the serial number of the installed part, in the **Installed Serial #** field.

Note: If the Object Type is "Others", Record Mode is "Normal" and Source is "Remove" or "Replace", ensure that the removed part #, removed serial #, installed part # and installed serial # are not available as part of configuration of the current Aircraft Reg # or any other Aircraft Reg #.

7. Use the **Object Type** drop-down list box to specify the part type being removed. The system lists the following options: Component, Other Parts and Miscellaneous.

If the **Object Type** is selected as **Other Parts**, the system displays the following field, which you are to enter:

8. Use the **Serial #/ Lot # Type** drop-down list to select the serial number and lot number type of the removed part. The system lists the options “Existing” and “New”.

The system does not display the field above, if **Object Type** is selected as **Component** or **Miscellaneous**.

If the **Serial #/ Lot # Type** is selected as **New**, the system displays the following field, which you are to enter:

9. Enter the manufacturer serial number of the removed part in the **Removed MSN #** field.

The system does not display this field, if the **Serial #/ Lot # Type** is selected as **Existing.**

10. Use the **Confirmed Failure?** drop-down list box and select “Yes” to specify that the component removed by the mechanic is suspected as failure, “No” to specify that the component removed by the mechanic is confirmed as failure or “Not Applicable” to specify that the Ship or Shelve (SOS) program is not applicable to the component removed.

The system lists the value “Not Applicable” if the “SOS Program Applicability” (Ship or Shelve Program Applicability) is set as “Not Applicable” in the “Set Options” activity of the “Common Masters” business component. Else the system lists “Yes” and “No”.

Note: The above field is not displayed on satisfying the following conditions:

a. if the option "SOS Program Applicability" is set as 'Not Applicable' in the “Common Masters” business component

b. if the Component Condition is “Serviceable” or “Phased Out”.

11. Use the **Source** drop-down list box to specify the replacement type of the source of the installed component. The system lists the following options: “Remove”, “Attach”, “Replace”, “Cannibalize” and “Swap”.

If **Source** is selected as **Swap, Cannibalize** or **Attach**, the system displays the following fields, which you are to enter:

12. Enter the registration number of the aircraft from which the component was taken for installation in the **Source Aircraft #** field.

Note: The Source Aircraft # field will not be displayed, if “Source” is selected as “Attach”.

13. Enter the number identifying the component from which the Higher Assembly for the Installed Part # / Serial # was taken in the **Source Component #** field.

14. Enter the level code from which the part has been taken for installation, in the **Ac Level #** field.

15. Enter the position code from which the part has been taken for installation, in the **Ac Position #** field.

16. Enter the component replacement number of the part that has been removed, from the other referenced aircraft in the **Source Removal #** field.

Note: The Source Removal # field will not be displayed, if "Source" is selected as "Attach".

The system does not display the fields above, if **Source** is selected as **Replace** or **Remove**.

17. Use the **Removed Condition** drop-down list box to select the condition of the removed component.

18. Enter the code identifying the employee who has carried out the removal, in the **Employee #** field.

19. Use the **Reason #** drop-down list box to specify the reason for removal of the component.

20. Use the **Record Mode** drop-down list box to select the mode in which the component replacement is recorded.

21. Enter the date and time of the component replacement transaction, in the **Date & Time** field.

22. Enter the additional remarks about the replacement, in the **Removal Remarks** field.

23. Enter the **Acceptance Ref.**, if the "Effectivity Status" of the installed part is set as "Conditional Effective" in the "Manage Part Effectivity" activity of the "Aircraft" business component, while attaching a part to aircraft.

24. Click the **Save** icon '  ' to update the component replacement transaction.

25. Select the **New** icon '  ' in the **Component Replacement** group box, to record another component replacement.

26. Click the **Confirm** icon '  ', to confirm the component replacement.

A unique number is generated and displayed alongside the **Component Replacement #**.

Note: Component replacement # is generated only if the "Object Type" is "Component".

The count of component replacements recorded for the selected aircraft maintenance execution reference # is increased, and displayed alongside the **Component Replacements** pushbutton.

Note: Component Replacement records cannot be created, modified or confirmed against the task, if the 'Transient Status' of the task is set as "Hold" in the "Record Work Hold" page of the "Work Monitoring and Control" business component.

Editing a component replacement

1. Select the **Aircraft maintenance execution reference** for which component replacement details are to be modified in the tree structure.

2. Select the **Component Replacement** pushbutton in the navigation pane. The component replacement tree interface appears. *See Figure 2.14.*

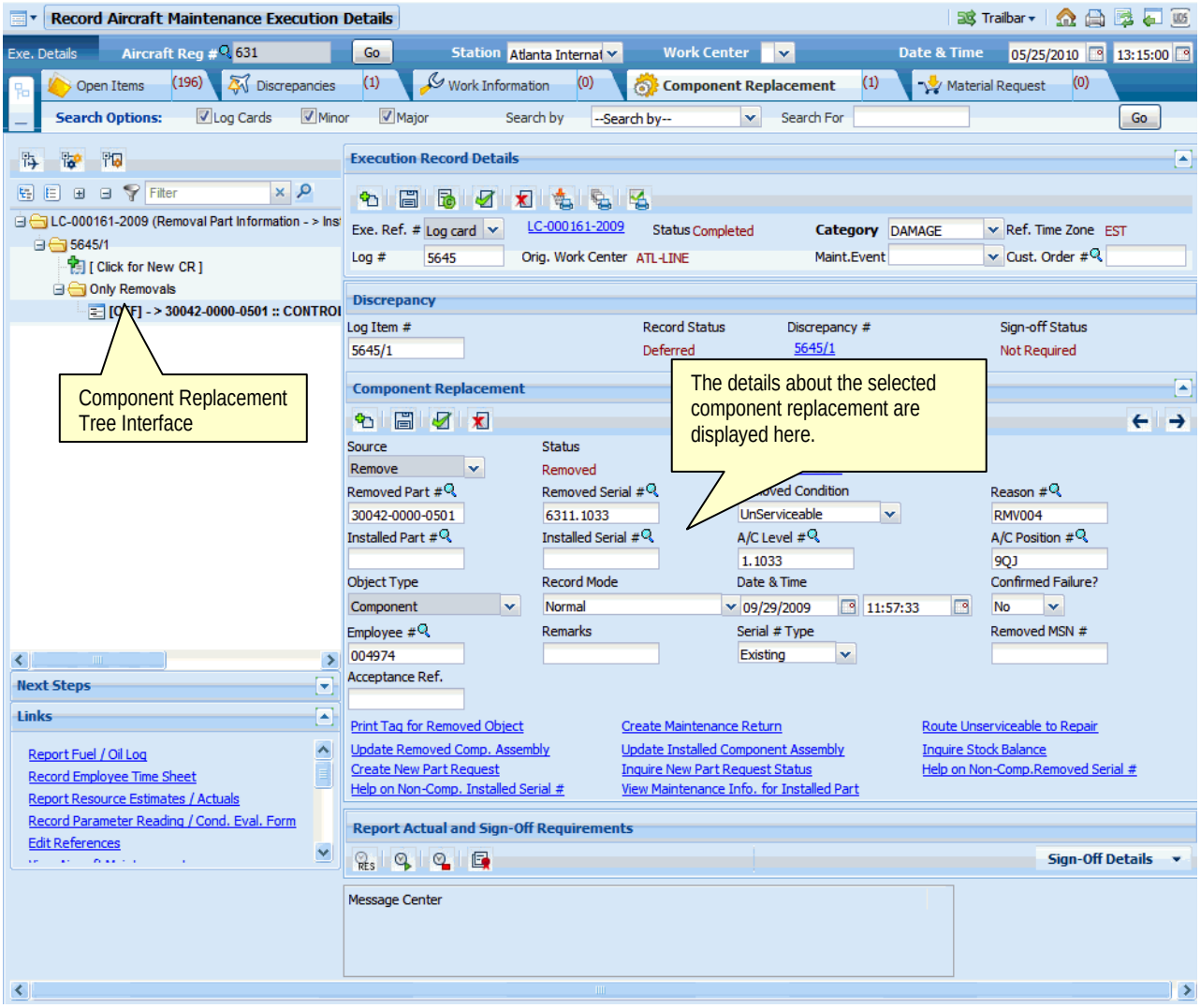


Figure 2.14 Editing a component replacement

The navigation pane will display the tree interface, in completely exploded form.

The selected **Aircraft Maintenance Execution Reference #** will be the parent node in the tree. The task # is displayed as the first-level node.

The text **Pending Action Items**, **Only Removals**, **Only Installs**, **Replaced Items**, **Swapped Items** and **Cannibalized Items** are displayed as the first level node.

The subsequent component replacements reported for the aircraft maintenance execution reference such as **Pending Action Items**, **Only Removals**, **Only Installs**, **Replaced Items**, **Swapped Items** and **Cannibalized Items** will be the second level nodes.

A tool tip displays the information available for the component replacement as Part #/ Part Description / Serial # / Position Code/ CR #.

a. **Pending Action Items**: The records with Object Type “Component” and which do not have CR # generated are displayed under this node.

b. **Only Removals**: The CR records with status “Removed” or 'Error Removed', Object Type set as “Others” or “Miscellaneous” and Source set as “Removed”, are displayed under this node.

c. **Only Installs**: The CR records with status “Replaced” or “Error Replaced”, Source set as “Attach” and Object Type set as “Others” or “Miscellaneous”, are displayed under this node.

d. **Replaced Items:** The CR records with status “Replaced” or “Error Replaced”, Source set as “Replace” and Object Type set as “Others” or “Miscellaneous”, are displayed under this node.

e. **Swapped Items:** The CR records with status “Replaced”, Source set as “Swap” and Object Type set as “Others” or “Miscellaneous”, are displayed under this node.

f. **Cannibalized Items**: The CR records with status “Replaced”, Source set as “Cannibalize” and Object Type set as “Others” or “Miscellaneous”, are displayed under this node.

On clicking any node in the CR Tree, all the necessary details are transferred to the right pane along with the task # and the related details, if the task is not having the source as 'Discrepancy'. If any node is clicked which belongs to the task # having the source as 'Discrepancy', then the right pane context section is replaced with 'Discrepancy Header' section and the corresponding discrepancy details are populated along with the CR details.

On clicking the node 'Click for New CR' in the tree interface, based on the Parent Task under which the current node is displayed, the right pane is refreshed with the

'Discrepancy' or 'Work Information' section and the work unit or discrepancy details are transferred accordingly.

Note: The tasks / discrepancies with 'Transient Status' as "Hold", are highlighted with the Exclamatory Icon '', in the tree structure.

If any information about the component replacement is not available, the system indicates it by displaying <NA>in the format.

3. Select the **component replacement** to be modified in the tree interface.
4. The details of the selected component replacement are displayed, in the **Component Replacements** group box to the right.
5. Edit the required details of this component replacement.

Note: Only the component replacements under the text "Pending Action Items" can be modified.

6. Click the **Save** icon to save the modified details of the component replacement.
7. Click the **Next** and **Previous** icons to traverse to different component replacement.

Canceling a component replacement

1. Select the **Component Replacement** to be cancelled from the tree structure.

The details of the selected component replacement are displayed, in the **Component Replacement** group box to the right.

2. Click the **Cancel** icon ' ' to cancel the selected component replacement.

Note: You can cancel a component replacement for which CR # is not generated.

To proceed further

- Select the **Print Tag for Removed Object** link to print the tag for removed object.
- Select the **Create Maintenance Return** link to create a maintenance return document for returning excess stock or core-returnable, if any.
- Select the **Route Unserviceable to Repair** link to route the unserviceable components to repair.
- Select the **Update Removed Component Assembly** link to update the component maintenance details for removed components.
- Select the **Update Installed Component Assembly** link to update the component maintenance details for installed components.

- Select the **Inquire Stock Balance** link to retrieve information pertaining to the stock balance.
- Select the **Create New Part Request** link to create a new part request.
- Select the **Inquire New Part Request Status** link to retrieve the part request status details.
- Select the **Help on Non-Comp Removed Serial #** link to view the list of the Non-Component removed serial numbers.
- Select the **Help on Non-Comp Installed Serial #** link to view the list of the Non-Component installed serial numbers.
- Select the **View Maintenance Info. for Part** link to view the maintenance information such as part description, base part, component type, part effectivity, ATA chapter to which the part belongs and the status of the installed part.

Creating a new material request

1. Select the **Aircraft Maintenance Execution Reference** for which a new material request is to be added from the tree.
2. Select the **Material Request** pushbutton in the navigation pane. The **Material Request** group box appears. *See Figure 2.15.*

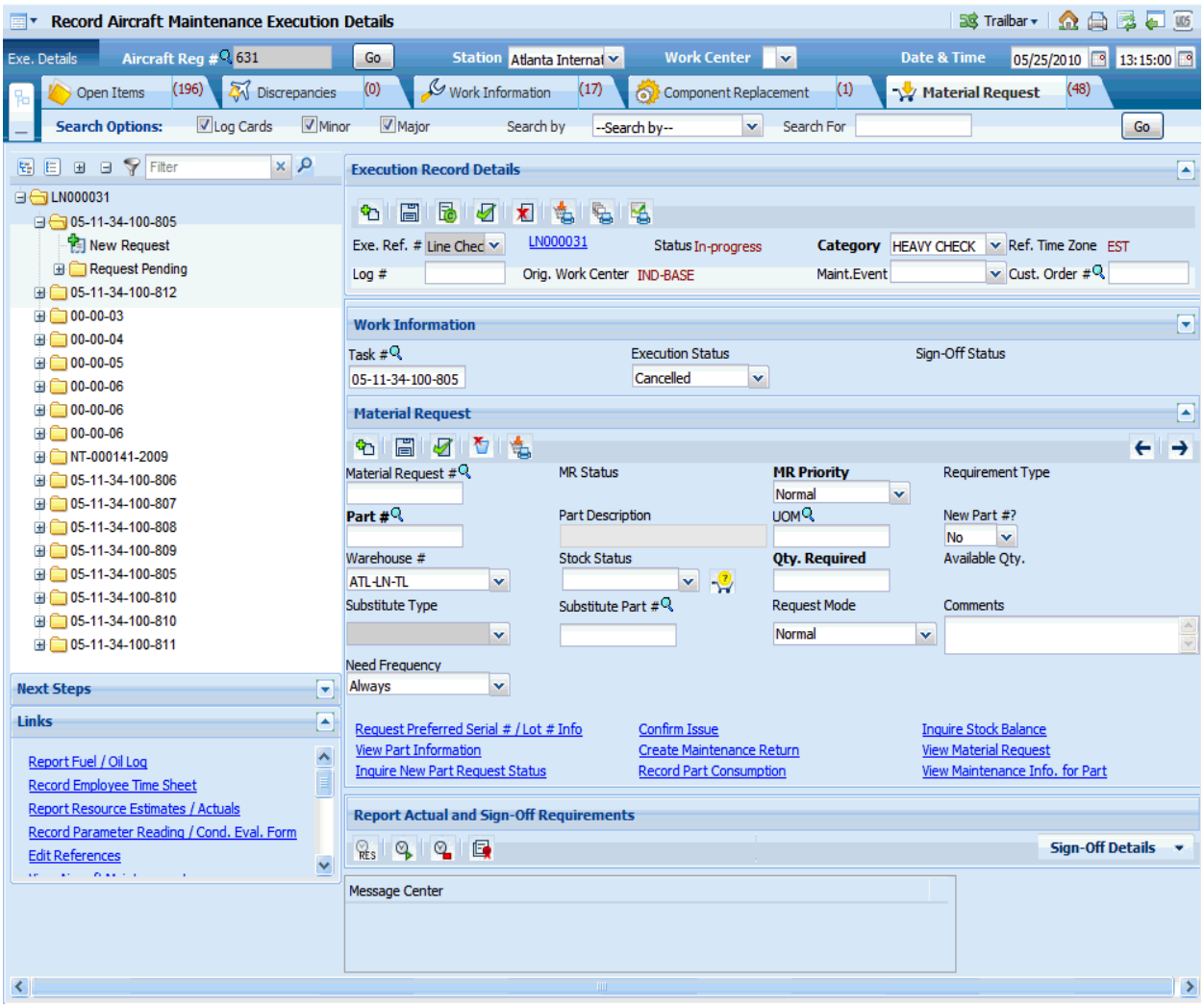


Figure 2.15 Creating a material request

3. Enter the **Material Request** # generated for the aircraft to carry out the maintenance task.

4. Enter the part number that has been issued against the selected material request, in the **Part** # field and the description of the part in the **Part Description** field.

5. Use the **MR Priority** drop-down list box to select the priority of the material request.

6. Enter the quantity of material required, in the **Qty. Required** field. The quantity entered can be in fractions only if the “Fractions Allowed” field is set as “Yes” for the specified unit of measurement in the “Unit of Measurement Administration” business component.

7. Enter the unit of measurement in which the parts are required, in the **UOM** field.

8. Use the **Warehouse #** drop-down list box to select the warehouse where you are located.

9. Use the **Stock Status** drop-down list box to select the stock status in which the part is required.

10. Use the **Substitute Type** drop-down list box to select the type of substitute for the part.

If **Substitute Type** is selected as **NHA** or **Specific Alternate** and "New Part #?" drop-down list box is set as "No", system displays the following field, which you are to enter:

11. Enter the number identifying the alternate part that can be used if the part entered in the "Requested Part #" field is not available in the **Substitute Part #** field.

Note: The system does not display the 'Substitute Part #" field, if "New Part #?" drop-down list box is set as "Yes", irrespective of the Substitute Type..

12. Enter the quantity that was used against the issued quantity, in the **Used Qty** field.

13. Enter the comments regarding the execution of the material request, in the **Comments** field.

14. Use the **Request Mode** drop-down list box to specify the mode in which the part is requested. The system lists the following options:

    - Normal - Select this option to specify that the part is requested normally. If you select this option, the part requested must be effective for the Aircraft Reg #. The "Effectivity Status" of the part is defined in the "Manage Part Effectivity" activity of the "Aircraft" business component.

    - Conditional Req. - Select this option, if the part requested is set as "Conditional Effective" to Aircraft or Aircraft Model as defined in the "Manage Part Effectivity" activity.

    - Force Req. - Select this option, if the part requested is set as "Not Effective" to Aircraft or Aircraft Model as defined in the "Manage Part Effectivity" activity.

15. Click the **Save** icon '  ' to save the material request.

If the **Material Request #** is generated for the Part #, the system displays the following fields:

i) The number identifying the material requested for the aircraft to carry out the maintenance task, in the **Material Request #** field.

ii) The status of the material request i.e. 'Authorized' or 'Partially Issued', in the **MR Status** field.

iii) The requirement type of the part, in the **Requirement Type** field.

If a specific serial number and/or lot number is identified for the part, the system displays **Specific**. Otherwise, the system displays **Normal**.

iv) The number identifying the part in the issue transaction, in the **Issued Part #** field.

v) The quantity that was issued for the selected material request, in the **Issued Quantity** field.

vi) The remaining quantity of parts that need to be returned after usage in the **Pending Return Quantity** field.

vii) The remaining quantity of core parts that need to be returned after usage in the **Pending Return Quantity-Core**.

16. Use the **New Part #?** drop-down list and select 'Yes' or 'No' to specify whether the part for which the material request is generated is a new part or not.

17. Use the **Need Frequency** drop-down list box and select 'As Required' to specify that the part is not mandatory for the execution of the task, or select 'Always' to specify that the part is mandatory for the execution of the task.

18. Click the **New** icon '  ' to create another material request.

Editing a material request

1. Select the **Aircraft Maintenance Execution Reference** for which material request details are to be modified, in the tree interface.

The count of material requests recorded for the selected aircraft maintenance execution reference # is displayed alongside the **Material Request** pushbutton.

2. Select the **Material Request** pushbutton in the navigation pane. The Material Request tree interface appears. *See Figure 2.16.*

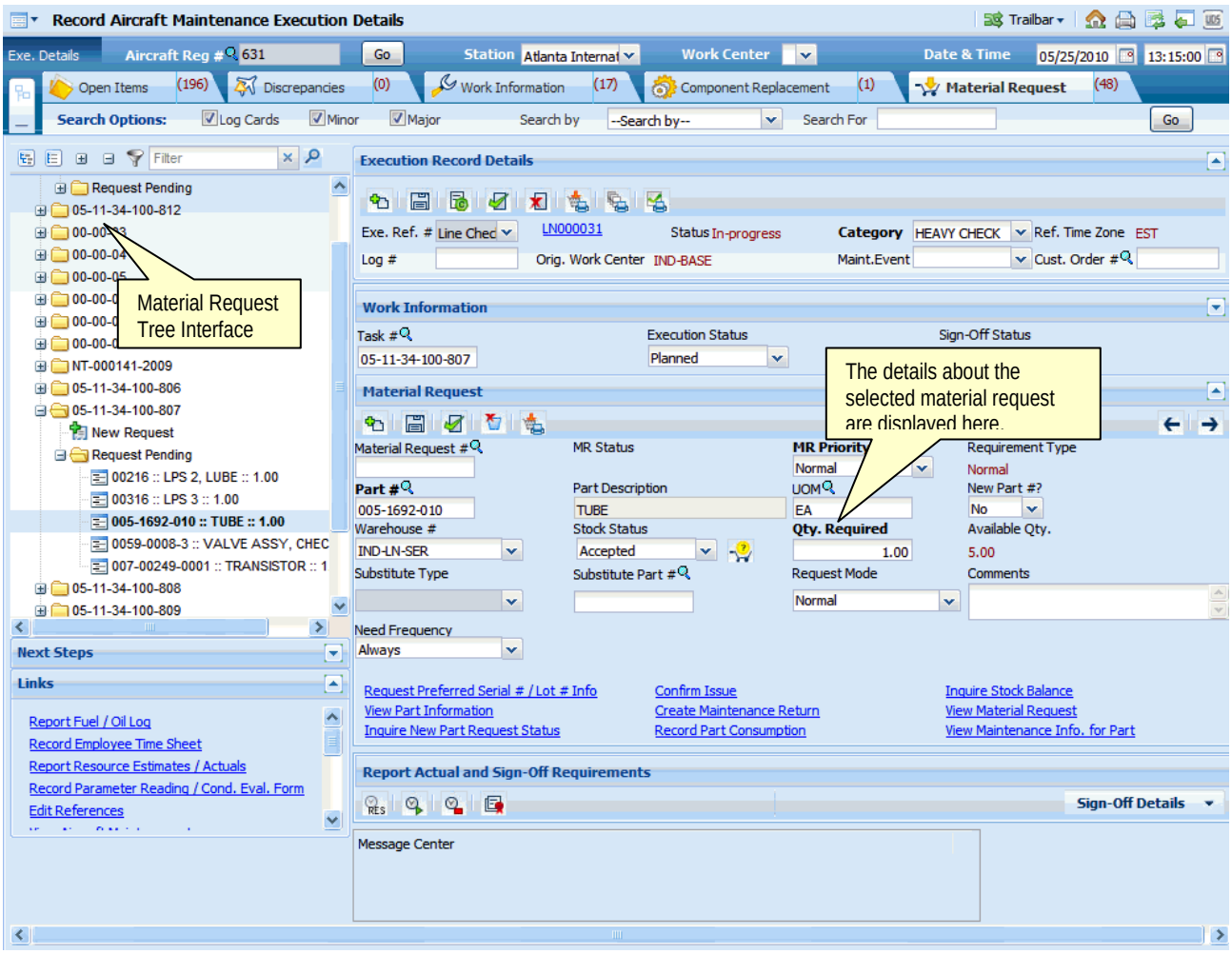


Figure 2.16 Editing a material request

The system displays the text **Material Request and Consumption** at the top of the navigation pane.

The lower half of the navigation pane will display the tree interface, in completely exploded form.

The selected **Execution Reference #** will be the parent node in the tree. Under the parent node task # is displayed as the child-level node. The tree structure is as follows:

Execution Ref. #

Task #

i) **As Required**: All the parts for which the Need Frequency is set as "As Required" and for which no material request is created, are displayed under this node.

ii) **Pending Request**: All the parts which are not yet requested and for which the Need Frequency is set as "Always" are displayed under this node. On clicking

this node, the system retrieves the Part #/ Part Description/ Qty required and UOM values.

iii) **Request Generated**: All the parts for which requests are generated are displayed under this node. The Material Request and Material Issues along with the quantities are also displayed under this node.

iv) **Issued / Confirmed**: The Issued Transactions along with the issued quantity are displayed under this node.

Note: The tasks / discrepancies with 'Transient Status' as "Hold", are highlighted with the Exclamatory Icon '  ', in the tree structure.

If any information about the material request is not available, the system indicates it by displaying [NA] in the format.

3. Select the material request to be modified in the tree interface.

The details of the selected material request are displayed, in the **Material Request** group box to the right.

4. Edit the required details of this material request.

5. Click the **Save** icon to save the modified details of the material request.

Note: If the Need Frequency for the part is set as "Always", the part details are moved to the "Pending Request" node in the tree interface.

If the Need Frequency for the part is set as "As required", the part details are moved to the "As Required" node in the tree interface.

If the requested material is issued, the part is moved from the "Request Pending" node to the "Request Generated" node in the "Material Request" tree interface.

If 10 items have been issued against a material request for a part and all the 10 parts have been consumed, the part reference is removed from the "Issued Part List" tree interface.

If 10 items have been issued against a material request for a part and only 8 parts have been consumed, the part reference reappears in the "Issued Part List" tree interface.

6. Click the **Next**  and **Previous**  icons to traverse to different material request.

7. Click the **Confirm** icon '  ' to confirm the material request.

Note: Material Request records cannot be created, modified or confirmed against the task, if one of the following conditions is true:

a. *'Transient Status' of the task is "Hold" in the "Record Work Hold" page of the "Work Monitoring and Control" business component.*

b. *'Transient Status' is not 'Hold', if the 'Hold Status' of the task is "Open" and if the process parameter "Prevent Material Request?" is set as*

"Yes" for the associated Hold Code. The process parameter is set in the "Set Process Parameters" page of the "Common Masters" business component.

Selective MMD printing

- Click the "Print Selective Material Movement Document" icon '  ' to print the selected material movement document (MMD) for a material request.

  The following documents will be considered for printing the MMD:

  a. The material requests with issue documents in "Fresh" status.

  b. The Material requests with "MR Priority" set as "AOG" and with no issue document created.

Short closing a material request

1. Select the material request to be short closed from the tree interface.

The details of the selected material request are displayed, in the **Material Request and Consumption** group box to the right.

2. Click the **Short Close** icon '  ' in the **Material Request and Consumption** group box, to short close the selected material request and update the status based on the issued quantity.

Note: Short closing is done for the difference between MR quantity and issued quantity.

To proceed further,

- Select the **Request Preferred Serial #/ Lot # Information** link to request the preferred serial and lot number details for the part.
- Select the **Confirm Issue** link to confirm the stock issue.
- Select the **Inquire Stock Balance** link to retrieve information pertaining to the stock balance.
- Select the **View Parts Information** link to view the part details.
- Select the **Create Maintenance Return** link to create a maintenance return document for returning excess stock or core-returnable, if any.
- Select the **View Material Request** link to view the material request details.
- Select the **Inquire New Part Request** link to retrieve the part request details.
- Select the **Record Part Consumption** link to record the part consumption details

Requesting preferred serial and lot number information for Execution Ref

1. Select the **Request Preferred Serial # / Lot # Information** link in the **Material Request** section. *See Figure 2.17.*

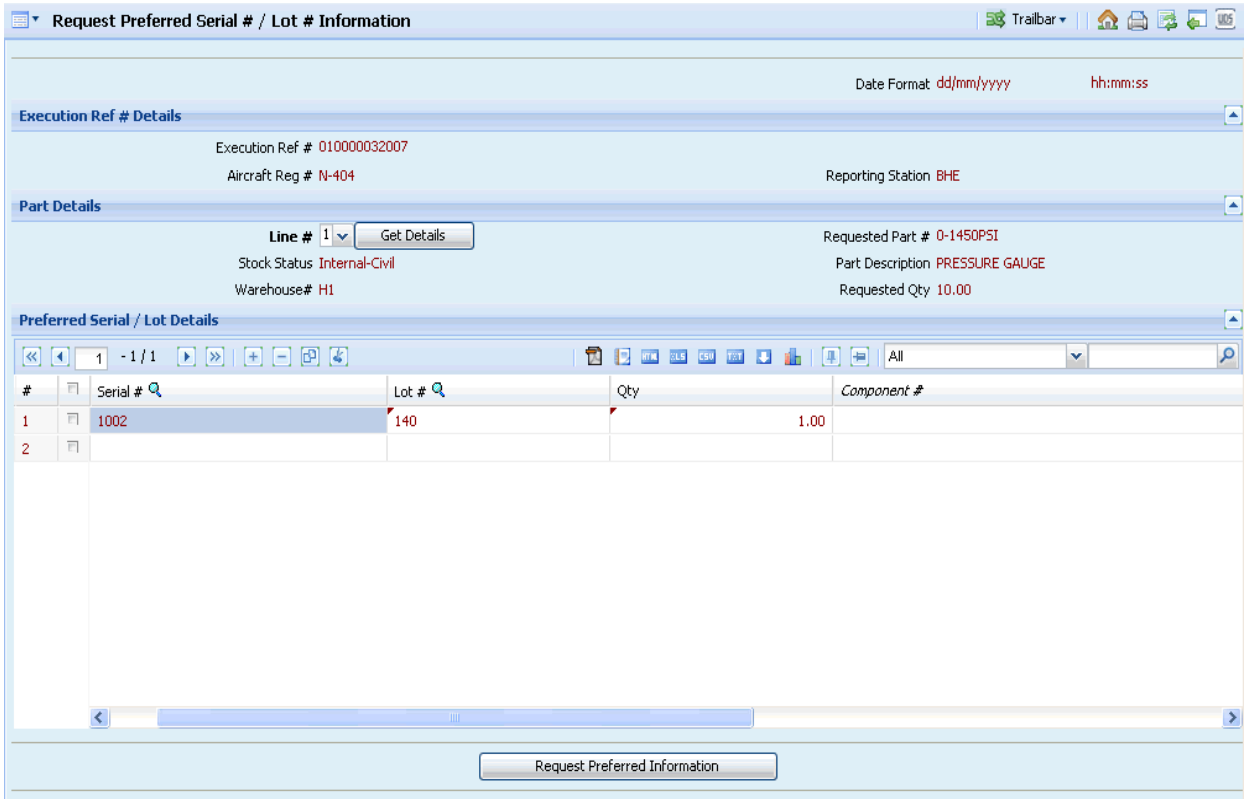


Figure 2.17 Requesting preferred serial and lot number information

2. Specify the **Line #** corresponding to the requested part in the **Request Material & Report Consumption** page, and click the **Get Details** pushbutton to retrieve the details of the requested part.
3. In the Preferred Serial / Lot Details multiline, enter the Seq #, Serial # and Lot #.
4. In the **Qty** field, enter the quantity of required parts.
5. Click the **Request Preferred Information** pushbutton to request preferred serial number and lot number.

To close an aircraft maintenance execution reference

After creating a new aircraft maintenance execution reference and recording the discrepancy, work information and component replacement details for it, you are to close the aircraft maintenance execution reference.

1. Select the icon “  ”, in the **Execution Record Details** group box, to close the aircraft maintenance execution reference.

To proceed further,

- Select the **Check Part Availability** link to check the availability of the parts across warehouses.
- Select the **Bulk Material Request** link to plan for the material required for executing the work unit.
- Select the **Create Maintenance Return** link to create a maintenance return document for the AME.
- Select the **Create Engg. Service Request** link to create an engineering service request.
- Select the **Record Part Consumption** link to record part consumption details.
- Select the **Record Employee Timesheet** link to update employee timesheet information.
- Select the **Report Resource Estimates / Actuals** link to update resource actual information.
- Select the **Record Parameter Reading / Cond. Eval. Form** link to record the parameter values and conditional evaluation details of the parameters.
- Select the **Report Fuel / Oil Log** link to enter the fuel and oil consumption details.
- Select the **Issue Certificate of Maintenance** link to issue the certificate of maintenance (CoM) for the Execution Ref #.
- Select the **Upload Documents** link to upload the documents.
- Select the **Edit Package Additional Information** link to edit the additional information of the package.
- Select the **Edit References** link to edit reference document details for the aircraft maintenance execution reference.
- Select the **View Aircraft maintenance Log** link to view the aircraft maintenance log details.
- Select the **View Associated Doc. Attachments** link to view the associated document attachments.
- Select the **View Engg. Advice Note** link to view the engineering advice note.

Recording part consumption details

This page allows you to update the part consumption details for the issued part against each task of an aircraft maintenance execution reference at both part-level and serial-level. The requested part details, issue details, return details and pending quantity details are displayed in the multiline. The Used Quantity of parts is also retrieved and displayed for the specified search criteria. You can modify the Used Quantity, if required for updating the consumption details.

1. Select the **Record Part Consumption** link in the left pane or in "Material Request" section. The **Record Part Consumption Details** page appears. *See Figure 2.18.*

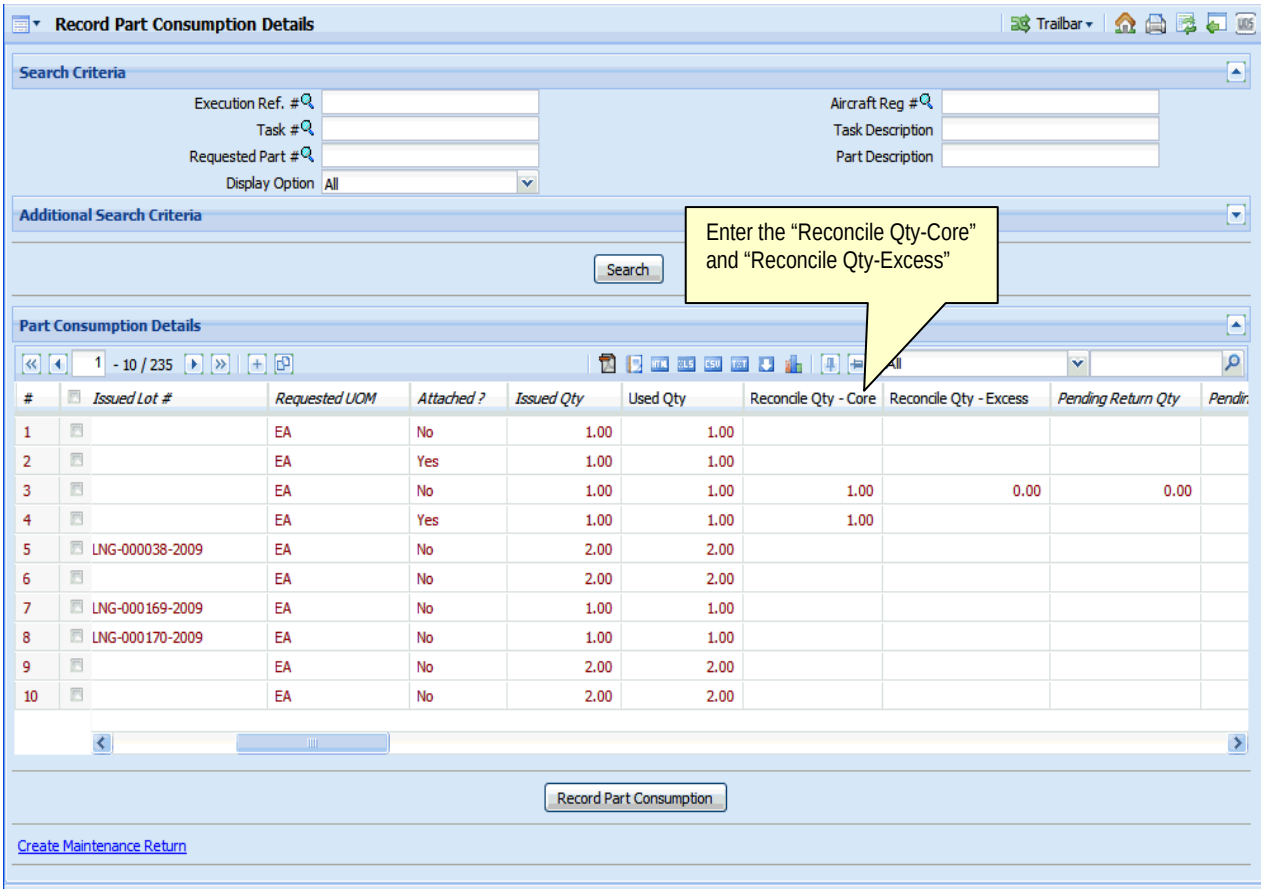


Figure 2.18 Recording part consumption details

2. In the **Search Criteria** group box, enter the **Execution Ref.** #, **Aircraft Reg** #, **Task** #, **Task Description**, **Requested Part** #, **Part Description** and specify the **Display Option** for displaying the part consumption details.

3. In the **Additional Search Criteria** group box, specify the **Part Type**, **Issue Basis**, **Requested Work Center** #, **Requested Warehouse #, Material Request** #, **MR Priority**, **Discrepancy** # and **Discrepancy Description**.

4. Click the **Search** pushbutton to retrieve the search results.

In the **Part Consumption Details** multiline, the system displays the Task #, Requested Part #, Issued Part #, Issued Serial #, Issued Lot #, Requested UOM, Attached?, Issued Quantity, Used Qty, Reconcile Qty-Core, Reconcile Qty-Excess, Pending Core Info, Pending Return Qty, Pending Return Qty-Core, Returned Qty - Excess, Returned Qty - Core, Requested Part Description, Requested Work Center #, Requested Warehouse #, Requested Stock Status, MR Priority, Material Request #, Issue Part Description, Part Type, Issued Warehouse #, Issued Stock Status, Issue Basis, Issue #, Execution Ref. #, Seq #, Task Description, Discrepancy #, Discrepancy Description, Issue Cost, Requested Qty and Aircraft Reg #.

5. Modify the **Used Qty** indicating the actual quantity of part used while executing the work order or task.

6. Enter the quantity of core-returnable parts that are expected to be returned to the warehouse, but not returned, in the **Reconcile Qty - Core** field.

7. Enter the quantity of returnable parts that are expected to be returned to the warehouse, but not returned, in the **Reconcile Qty - Excess** field.

Note: Consider that a serial-controlled core-returnable part is issued against an AME. After replacement, the same part with different serial number is expected to be returned to the warehouse. If the part cannot be returned due to business reasons, this quantity of part is specified as the Reconcile Quantity-Core.

In scenario explained above, if the part is serial-controlled and returnable, then the quantity of the part is specified as Reconcile Quantity-Excess.

8. Enter the **Remarks**, if **Reconcile Qty-Core** or **Reconcile Qty-Excess** is specified.

9. Click the **Record Part Consumption** pushbutton to record the part consumption details.

Note: Part Consumption details cannot be recorded or modified for the task, if the 'Transient Status' of the task is set as "Hold" in the "Record Work Hold" page of the "Work Monitoring and Control" business component.

To proceed,

- Select the **Create Maintenance Return** link to create a maintenance return document for the task / discrepancy of the AME.

Reporting resource consumption

This page enables you to update the resources consumed for the **Execution Ref #**. You can update the resource information, such as the resource number, its type, number of hours the resource is utilized, the start and end date and time, attendance type of the employee while utilizing the resource and any other additional comments.

1. Select the **Report Resource Estimates / Actuals** link in the “Links” section in the left pane. The **Report Resource Estimates / Actuals** page appears. *See Figure 2.19.*

Details relating to the Execution Ref # are displayed in the **Execution Ref # Details** group box.

2. Enter the **Task #** in the **Execution Ref # Details** group box.

3. In the **Resource Estimates / Actuals Details** multiline, enter the resource for which you wish to update details in the **Resource #** field.

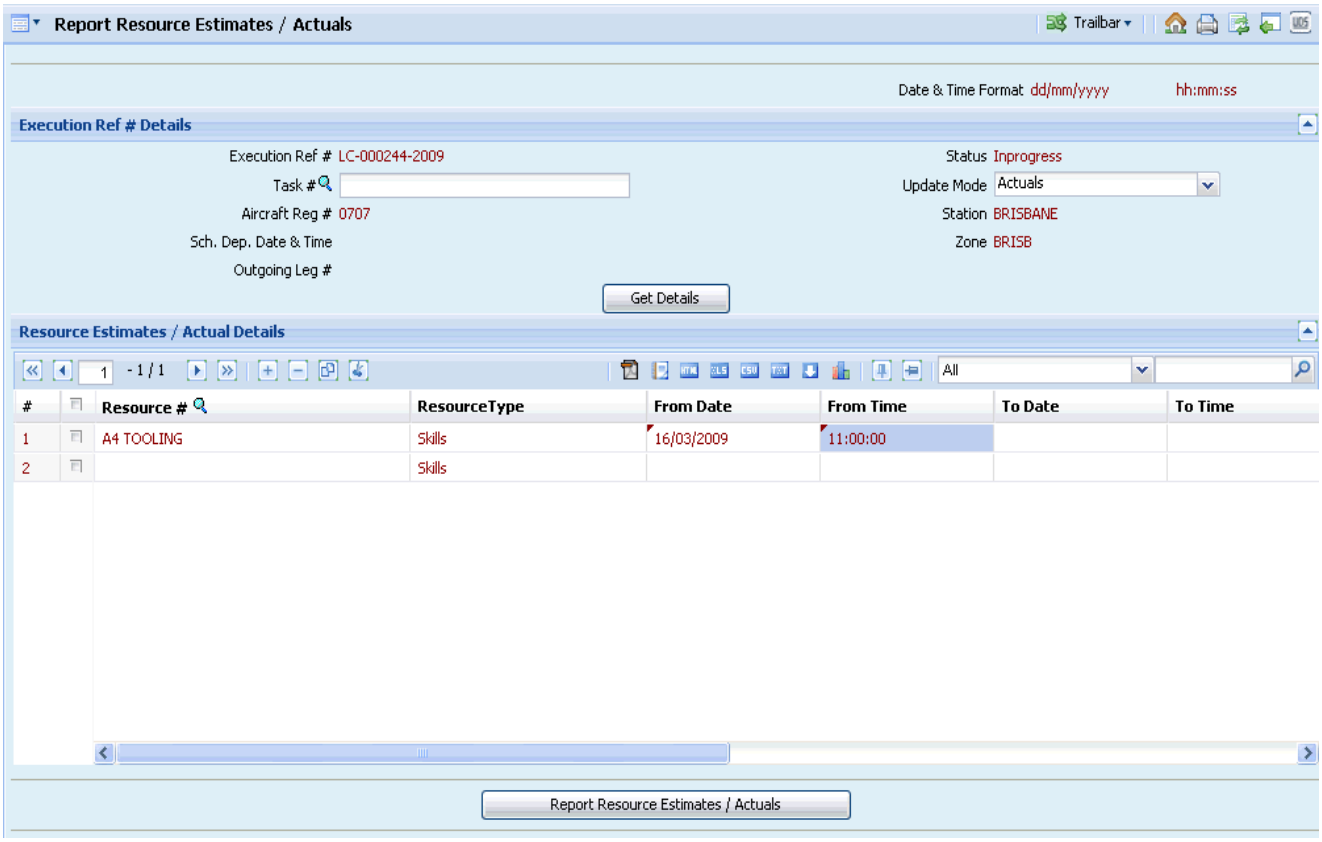


Figure 2.19 Reporting resource consumption

4. Use the **Resource Type** drop-down list box to select the type of resource, which can be “Skills”, “Equipment”, “Tools” or “Others”.

5. Enter the period for which the resource was utilized, in the **From Date**, **From Time**, **To Date**, **To Time** and **Used Hours** fields.

6. Click the **Report Resource Consumption** pushbutton to update the resource actuals for the **Execution Ref #**.

Recording reference document details

This page allows you to enter the reference information for the Execution Ref #, which is in the "Fresh" status. The Execution Ref # might involve referencing documents, manuals, drawings, etc. These details are recorded as the reference information in this page.

1. Select the **Edit References** link in the "Links" section in the left pane. The **Edit References** page appears. *See Figure 2.20.*

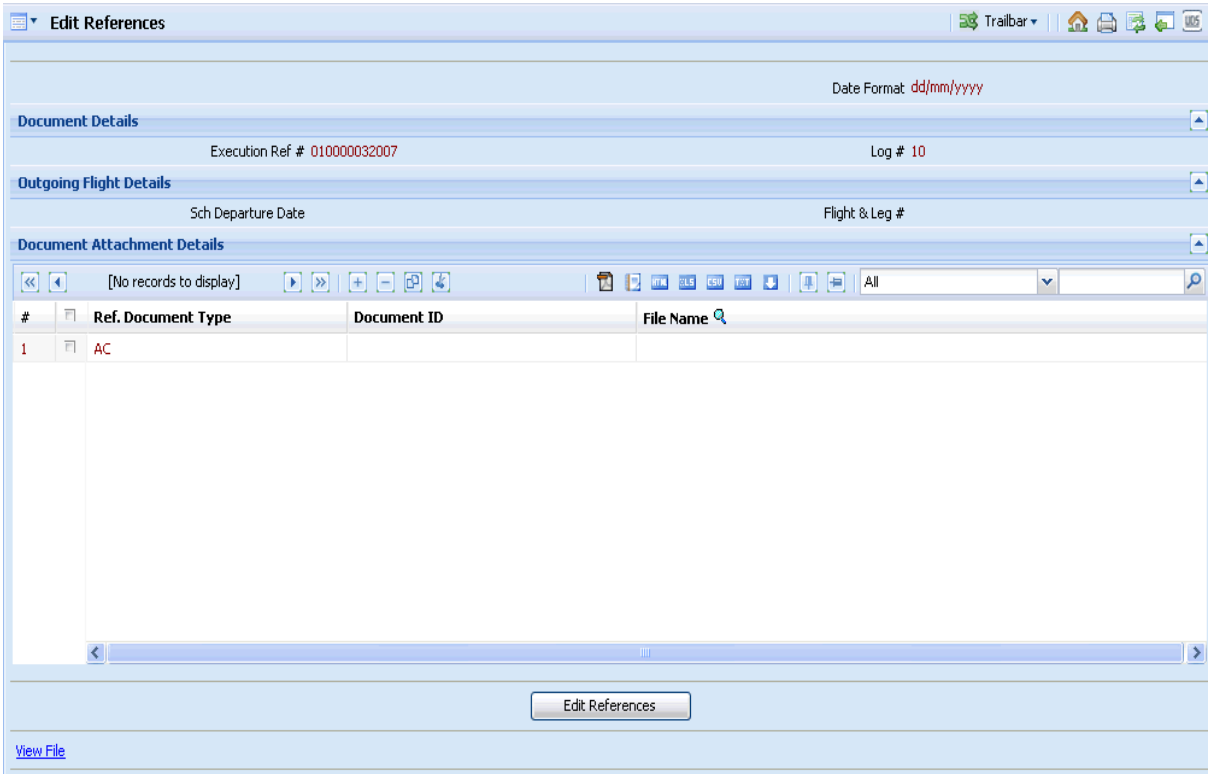


Figure 2.20 Recording reference document details

2. Details regarding the document are displayed in the **Document Details** group box.

3. In the **Document Attachment Details** multiline, use the Ref. Document Type drop-down list box to select the type of the reference document.

4. Enter the name of the referenced document in the **Document ID** field and the name of the file used for document reference that is associated to the Execution Ref # in the **File Name** field.

5. Click the **Edit References** pushbutton to update the reference document details for the Execution Ref #.

Editing package additional information

This page allows you to edit the attributes for package. You can specify the package details such as journey log number, starting station, Flight # & Leg #, Gate In Date & Time and gate number. You can also specify the Priority number, expense type of the aircraft maintenance execution reference. Misc. cost details of the execution reference can also be modified.

1. Select the **Edit Package Additional Information** link in the left pane. The **Edit Package Additional Information** page appears. *See Figure 2.21.*

Figure 2.21 Editing package additional information

The system displays the Exe. Ref. #, Status of the Execution Ref. #, Aircraft Reg # and Aircraft Model # in the **A/C Maint. Exe. Details** group box.

2. Select the **Work Center** for the Execution Reference # in the **A/C Maint. Exe. Details** group box.

3. Use the **User Status** drop-down list box and specify the user-defined status of the task.
4. Use the **Doc. Class** drop-down list box to select the class to which the Aircraft Maintenance Execution Reference belongs, as "Planned" or “Unplanned".
5. Use the **Priority** drop-down list box to specify the priority for the package.
6. Use the **CoM Reqd ?** drop-down list box and select “Yes” or “No” to specify whether the certificate of maintenance is required for the execution reference.
7. Use the **Operations Type** drop-down list and select “Flight Operation” or “Repair Station” to assign a user-defined status for the execution reference.
8. Select the **Expense Type** of the package as “Revenue” or “Capital”.
9. Enter the **CAPEX Proposal #** of the Aircraft Maintenance Execution reference.
10. In the **Journey Log Details** group box, specify the **A/C Maint. Exe. Basis** as “Non Journey Log”, “JL - Consolidated” or “JL - Leg Level”.
11. Enter the **Journey Log #** and the **Starting Station** from which the journey begins.
12. Enter the **Flight # & Leg #** for which the execution reference is created and the **Line #** of the flight.
13. Enter the **Gate #**, and date and time at which the flight was taxied to the gate or the last docking date in the **Gate In Date & Time** field.
14. In the **Cost Additional Information** group box, the system displays the actual and estimated **Material Cost, Resource Cost** and **Labor Cost** of all the associated tasks of the current Aircraft Maint. Exe. Ref. #., and also the currency in which the cost is displayed.

In the **Out Going Flight Details** group box,

15. Enter the date and time of flight departure in the **Sch Dep Date & Time** field.
16. Select the destination station of the flight in the **To Station** drop-down list box.
17. Use the **Days First Flight?** drop-down list box and select “Yes”, if the outgoing flight is the first flight for the day. Select “No” otherwise.
18. Click the **Edit Additional Information** pushbutton to edit the package additional information.

Chapter 3/ Work Monitoring and Control

The Work Monitoring and Control sub process enables the shop supervisors to plan work for the mechanics/employees and review the status of the tasks. The main objective is to make it possible for the mechanics to work only on the aircraft, and reduce their system activities. The supervisors perform all the system activities, including timesheet booking for the mechanics.

The tasks are grouped into a package in the “Aircraft Maintenance Planning” business component. The grouped tasks are retrieved and the start date and end date for the execution of the tasks are assigned by the supervisor.

The **Work Monitoring and Control** business component enables the supervisor to accomplish the following:

- Plan work for the employee.
- Assign work to the employee.
- Perform timesheet booking for the employees.
- Review the work-in progress.
- Report actual work details of the employee.
- Modify the timesheet.

Managing work assignments and reporting

This activity enables the shop supervisors to plan work for the mechanics/employees and review the status of the tasks.

1. Select the **Manage Work Assignments and Reporting** link under the **Work Monitoring and Control** business component. The **Manage Work Assignments and Reporting** page appears. *See Figure 3.1.*

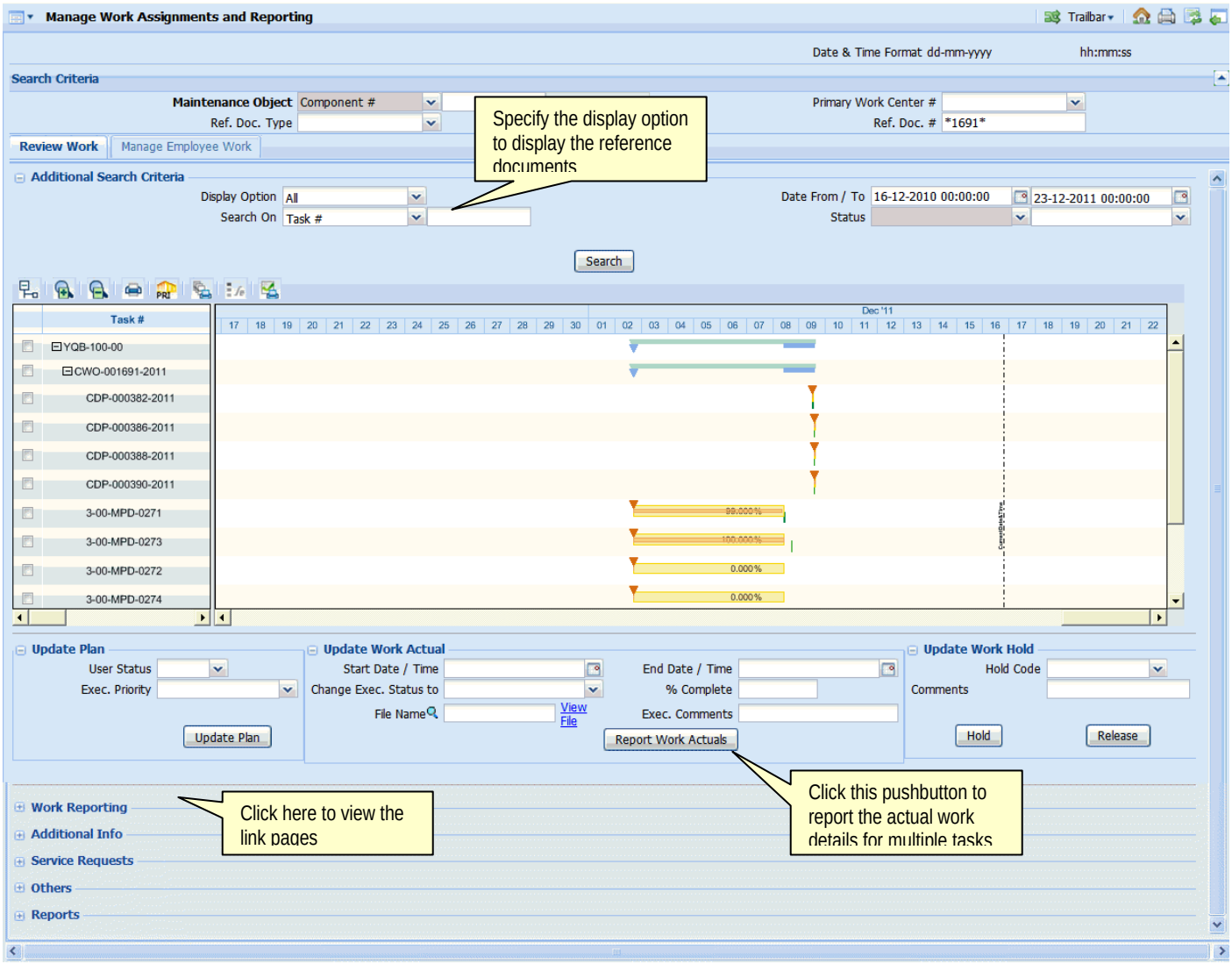


Figure 3.1 Managing work assignments and reporting

2. In the **Search Criteria** group box, select the **Maintenance Object** as 'Aircraft Reg #', 'Part # / Serial #' or 'Component #' and enter values in the editable box, corresponding to the option selected.

3. Select the "Review Work" tab to review the status of the task in the corresponding package.

4. Select the "Manage Employee Work" tab to assign work and perform timesheet booking for the employee.

Reviewing the work of the employee

The tasks which are grouped into a package in the **Aircraft Maintenance Planning** business component are retrieved in this tab and the start date and end date for the execution of the tasks are assigned by the supervisor. The supervisor can perform the following using this tab:

- Plan the work for the employee using the Gantt chart.
- Go to the **Manage Employee Work** tab and assign the work to the employee and book the hours the employees spent on the task. You can also modify the booked timesheet details, if required.
- Revisit the **Review Work** tab and review the progress of each task.
- Update the actual work details of the employee for multiple tasks.
- Change the status of the task to "Completed" if the assigned task is completed.
- Hold or release the task.

1. Select the **Review Work** tab in the **Manage Work Assignments and Reporting** page. *See Figure 3.2.*

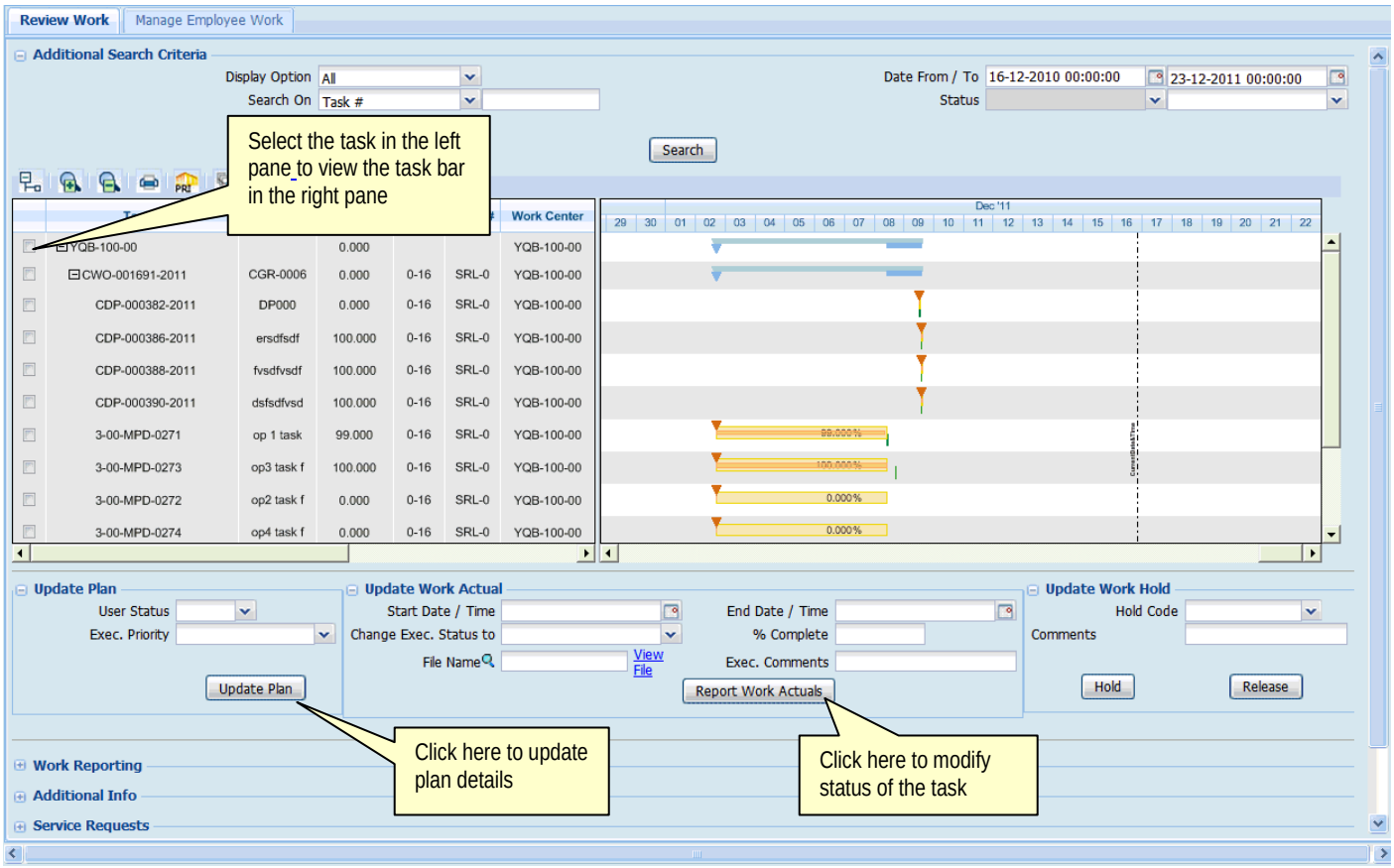


Figure 3.2 Reviewing work of employees

2. In the **Additional Search Criteria** group box, select the **Display Option** to display the reference documents and tasks in the "Gantt Chart". The system provides the following options:

- "All" - Select this option to display all the tasks whose Plan Start Date fall within the From / To date range.
- "Delayed Start" - Select this option to display the reference documents and the associated tasks whose Actual Start Date / Time is greater than the Plan Start Date / Time. The details are displayed only at task level.
- "Delayed End" - Select this option to display the reference documents and the associated tasks whose Actual Start Date / Time, Actual End Date / Time and server Date / Time are greater than the Plan End date / Time. The details are displayed only at task level.

Note: The system displays only those reference documents that are in "Planned", "In-Progress" and "Completed" statuses.

3. Enter the date range scheduled for the execution of a task in the **Date From / To** field.

4. Select the **Search On** based on which the task details are retrieved and displayed in the corresponding search details multiline. An editable box is provided alongside in which the values corresponding to the item selected in the drop-down list box are entered.

5. Select the **Task Status** or the **Hold Status** of the task and click the **Search** pushbutton.

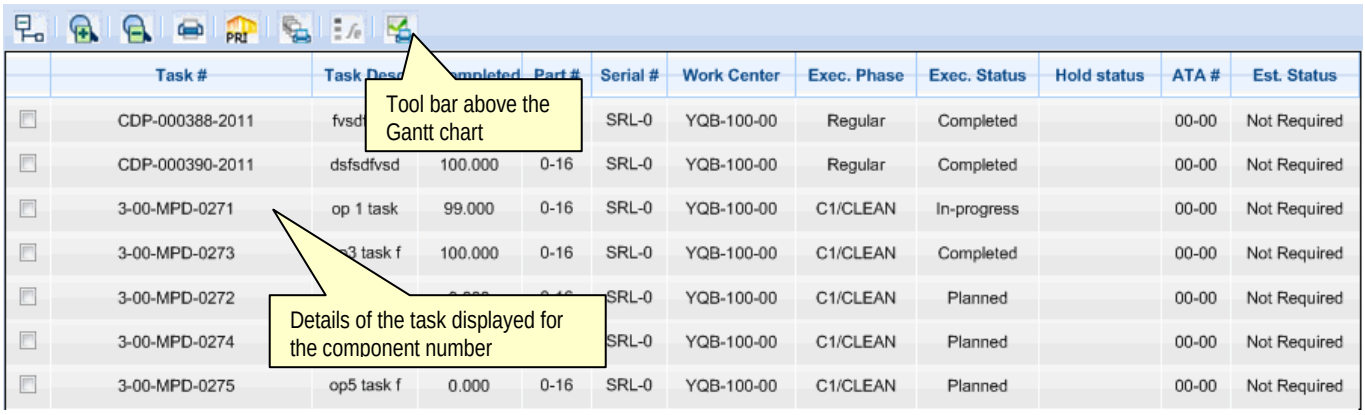
The system displays a “Gantt Chart” which is divided into two panes.

Left Pane of the Gantt Chart

The aircraft for which the maintenance activities are planned for a specified date range can be retrieved and displayed in the left pane in the Gantt chart. The shop / hangar supervisors can now plan the work for the mechanics. The following details are displayed in the left pane at different levels: *See Figure 3.2.*

- Work Center #
- Aircraft Reg #
- Execution Document #
- Task #

For each execution documents the system displays various columns such as Task #, Task Description, % Completed, Part #, Serial #, Work Center, Exec. Phase, Exec. Status, Hold Status, ATA #, and Est. Status, , , , , #. *See Figure 3.3.*



Task #	Task Desc	% Completed	Part #	Serial #	Work Center	Exec. Phase	Exec. Status	Hold status	ATA #	Est. Status
CDP-000388-2011	fvsd			SRL-0	YQB-100-00	Regular	Completed		00-00	Not Required
CDP-000390-2011	dsfsdfvsd	100.000	0-16	SRL-0	YQB-100-00	Regular	Completed		00-00	Not Required
3-00-MPD-0271	op 1 task	99.000	0-16	SRL-0	YQB-100-00	C1/CLEAN	In-progress		00-00	Not Required
3-00-MPD-0273	3 task f	100.000	0-16	SRL-0	YQB-100-00	C1/CLEAN	Completed		00-00	Not Required
3-00-MPD-0272				SRL-0	YQB-100-00	C1/CLEAN	Planned		00-00	Not Required
3-00-MPD-0274				SRL-0	YQB-100-00	C1/CLEAN	Planned		00-00	Not Required
3-00-MPD-0275	op5 task f	0.000	0-16	SRL-0	YQB-100-00	C1/CLEAN	Planned		00-00	Not Required

Figure 3.3 Reviewing work-Task details displayed at left pane of Gantt chart

Right Pane of the Gantt Chart

On clicking each task appearing on the left pane, the Planned Start date and Planned End Date of the corresponding task appear as bar in the right pane. The user can change the Planned Start Date and Planned End Date by shifting the position of the bar across the Gantt Chart. *See Figure 3.4.*

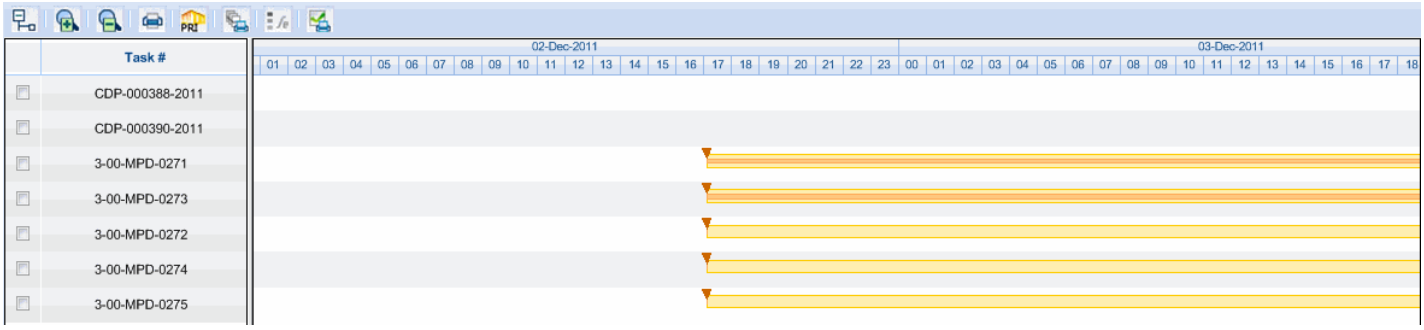


Figure 3.4 Reviewing work-Task details displayed at right pane of Gantt chart

After reporting work actuals in the “Manage Employee Work” tab page, the actual work execution details are displayed in the Gantt chart as bars in different colors as shown below:

	Indicates the total planned duration for completing the task. The percentage of work completed is displayed within this bar as digits.
	Indicates the percentage of work completed.
	Indicates the actual time booked by the employee.
	Indicates the actual time elapsed for the completion of the task.
	Indicates the document level planned bar.
	Indicates the document level actual bar.

Note: Ensure that the “Plan Start Date & Time” is not modified for the tasks which are in “In-Progress” status, and both the “Plan Start Date & Time” and “Plan End Date & Time” are not modified for the tasks which are in “Completed” status.

The Bar Chart displays the task details either at the “Primary Work Center Level” or “Execution Work Center level”. By default, the details are displayed at the “Primary Work Center Level”. You can use the toggle button provided in the tool bar above the Gantt chart, to change the display level from “Primary Work Center Level” (PRI) “Execution Work Center Level” (EXE).

Tool bar displayed above the Gantt Chart

The various icons displayed in the tool bar above the Gantt chart are as shown:

	‘Expand All’ - Expands or hides the nodes under the work center.
	‘Zoom In’ - Displays the task schedule details day-wise.
	‘Zoom Out’ - Displays the task schedule details month-wise and year wise.

	'Print' - Prints the details displayed in the Gantt Chart.
	'Primary Work Center Toggle button' - Displays the task details at Primary work center level.
	'Execution Work Center Toggle button' - Displays the task details at Execution work center level.
	'Print Package' - Prints the package document in PDF format.
	'Selective Print' - Launches the ePublications entry point screen.

6. In the **Update Plan** group box, enter the status of the time lag for the task to go to the next stage of execution in the **User Status** drop-down list box.

7. Use the **Exe. Priority** drop-down list box to specify the priority of execution of the task for which you wish to modify status.

8. Click the **Update Plan** pushbutton to update the plan details.

9. In the **Update Work Actuals** group box, enter the **Start Date / Time**, and **End Date / Time** of execution of the task.

Note: The system allows modification of the "Start Date / Time" and "End Date / Time" only for tasks which are in "Planned" status.

10. Use the **Change Exec. Status to** drop-down list box to change the status of the task as "In-Progress", "Completed", "Closed", "Cancelled" or "Pre-Closed".

11. Enter the **% Complete** of the task execution, and the **File Name** which contains the task execution.

12. Enter any remarks regarding the reason for change in the status of the task in the **Exec. Comments** field.

13. Click the **Report Work Actuals** pushbutton to modify the status of the task.

14. In the **Update Work Hold** group box, select the **Hold Code** associated to the 'hold' of the task and specify the **Comments** related to the tasks that are on hold.

15. Click the **Hold / Release** pushbutton to hold or release the task.

Note: Ensure that your role has been mapped for releasing a hold and "All Roles" is specified as the value for the parameter ""Release Responsibility Roles' in the "Define Process Entities" activity of the "Common Masters" business component.

You cannot update the task plan or report the 'Work Actuals', when the task is on hold.

To proceed further,

▼ Select the  icon to expand the **Work Reporting** group box to view the link pages:

▼ Select the **Record Part Consumption** link to record the part consumption details.

- Select the **Record Work Hold** link to record the details of the tasks that are on hold.
- Select the **Report Fuel / Oil Log** link to enter the fuel and oil consumption details
- Select the **Record Parameter Reading / Cond. Eval. Form** link to record the parameter values and conditional evaluation details of the parameters.
- Select the **Report Resource Estimates / Actuals** link to update resource actual information.
- Select the **Record Signoff & Work Completion** link to sign-off the tasks and sub tasks in bulk.
- Select the **Return Parts** link to return parts to the warehouse after completion of task.
- Select the **Issue Certificate of Maintenance** link to issue the certificate of maintenance (CoM) for the Execution Ref #.
- Select the **Bulk Material Request** link to plan for the material required for executing the task/ package.
- Select the **Revise Deferral Limits** link to revise the deferral limits set for the discrepancy.
- Select the **Create Maintenance Return** link to create a maintenance return document
- Select the **Perform Opportunity Maintenance** link to perform opportunity maintenance.
- Select the ⊞ icon to expand the “Additional Info” group box to view the link pages:
- Select the **Edit Discrepancy Additional Information** link to modify the discrepancy additional information.
- Select the **Edit Package Additional Information** link to modify the additional information of the package.
- Select the **Edit Task Additional Information** link at the bottom of the page to modify the additional information of the task.
- Select the **Edit / Authorize Labour Hours** link to modify / authorize labour hour details.
- Select the ⊞ icon to expand the **Service Requests** group box to view the link pages:
- Select the **Track Response** link to record details of any request raised by an employee and track the response to the requests.

- Select the **Create Eng. Service Requests** link to create and confirm an engineering request (ESR).
- Select the **View Engg. Advice Note** link to select an engineering advice note (EAN) for viewing.
- Select the ⊞ icon to expand the “Others” group box to view the link pages:
- Select the **View Task** link to view the details of the task.
- Select the **View Discrepancy** link to view discrepancy information.
- Select the **View Task Date & References** link to view details of reference documents and date of completion of tasks.
- Select the **View A/C Maint. Exe. Ref. #** link to view the A/C maintenance execution reference details.
- Select the **Author Repair Procedure** to modify the non-standard task details.
- Selec the **View Comments Information** link to view comment information.
- Select the **Check Part Availability** link to view details of part availability in the warehouse.
- Select the **View Associated Doc. Attachments** link to view the associated document attachments.
- Select the **Upload Documents** link to upload the documents
- Select the ⊞ icon to expand the “Reports” group box to view the link pages:
- Select the **Manage Tear Down Report** to generate a report containing the details of the maintenance activities carried out on a part.
- Select the **Part Tag Report** link to tag the condition of a part.
- Select the **Record Parameter Reading / Cond. Eval. Form** link to record the parameter values and conditional evaluation details of the parameters.
- Select the **Edit / Authorize Labor Hours** link to modify and authorize the details of the labor hours recorded against component work orders and hangar work orders.
- Select the **Author Repair Procedure** link to author the repair procedure details for Non standard tasks.
- Select the **Check Part Availability** link to check the availability of the parts across warehouses.
- Select the **Create Engg. Service Request** link to create an engineering service request.

- Select the **View Engg. Advice Note** link to view the engineering advice note.
- Select the **View Comments Information** link to view the comments such as assignment Comments, employee comments, execution comments or sign-off comments.
- Select the **View Task Dates & References** link to view the task / discrepancy date and reference details.
- Select the **View Discrepancy** link to view the discrepancy details.
- Select the **View A/C Maint. Exe. Ref. #** link to view the A/C maintenance execution reference details.
- Select the **View Task** link to view the task details.

Recording parameter details and conditional evaluation details for the task

Engineering Change Management is a very critical and essential part of Aircraft Maintenance. Most of the engineering changes are very complex in nature and often needs lot of evaluation and follow-up. Consequentially, it is vital that the information systems employed, guide other related functions viz., Maintenance Planning & Production control, through various steps they need to take for effective completion of engineering change initiated, thus ensuring seamless information flow for effective decision making.

Some of the maintenance inspections trigger multiple tasks based on set of conditions defined as part of the task card definition and authoring process. During execution of the main task, mechanic performs the inspection and fills up the evaluation form. Based on the evaluation, another set of task has to be triggered. The planner has to manually review the post compliance follow-up instructions and execution details, to arrive at the next set of action.

The set of post conditional triggers can be captured in this screen. Based on the post-compliance value provided during execution, system can automatically perform the needed post compliance triggering action without manual intervention for analyzing the execution comments and deriving the post compliance action needed.

1. Select the **Record Parameter Reading / Cond. Eval. Form** link from any of the following business components:

   - Work Monitoring and Control: “Review Work” tab of the “Manage Work Assignments and Reporting” activity.
   - Aircraft Maintenance Execution: “Record Aircraft Maintenance Execution Details” activity.
   - Hangar Work Reporting:

- "Report & Close Work Order" activity.
- "Employee Work Information" activity.
- "Record Timesheet for Hangar Work Orders" activity.
- "Record Inspector Sign-Off" activity.

- Shop Work Order:
  - "Record Shop Execution Details" activity.

The **Record Parameter Reading / Cond. Eval**. **Form** page appears. See Figure 3.5

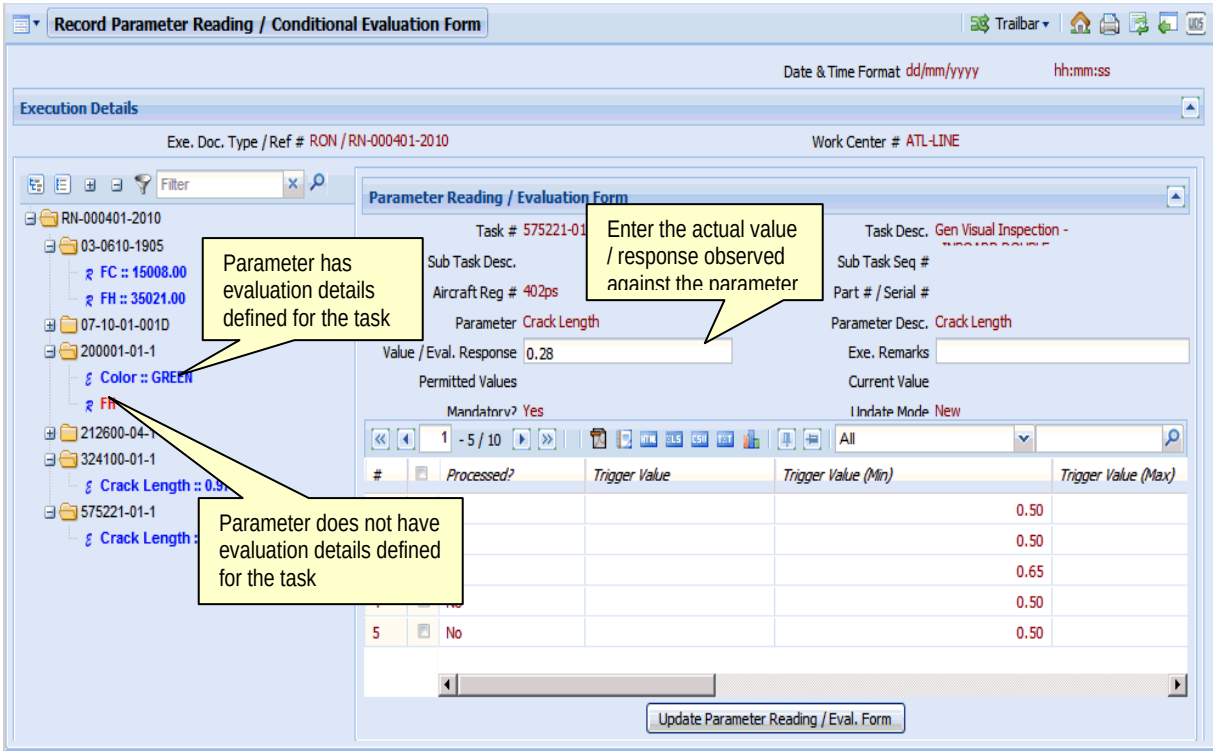


Figure 3.5 Recording parameter details and conditional evaluation details

The system displays the **Exe. Doc. Type / Ref #** and the **Work Center #** in the **Execution Details** group box.

Tree Structure

The system displays a tree structure in the left pane. The tree will have the 'Execution Doc. #' as the parent node (level). All the nodes of the tree are displayed in an exploded form. The various nodes displayed in the tree are as follows:

First (Parent) node: Execution Doc. #**:** The package, shop work order or the hangar work order against which the tasks are performed on an aircraft / engine.

Second node: Task # which have parameter requirements defined at task and / or at sub-task levels.

Third node:

- Parameter(s) mapped for the task (Parameters are listed in the same order as defined for the task in the “Edit Parameter Reading / Eval. Form' page of the “Maintenance Task”' business component).
- Sub Task Description which has parameter requirements. This is displayed in an order as per the Sub Task Seq #.

Fourth Node: Parameter mapped at each of the sub task level (Parameters are listed in the same order as defined for the task in the “Edit Parameter Reading / Eval. Form” page of the “Maintenance Task” business component).

For the parameter with and without conditional evaluation requirements, the nodes are represented with different symbols as shown below:

 **-** Indicates that the parameter has evaluation details defined for the task or sub tasks in the “Maintenance Task” business component.

 **-** Indicates that the parameter does not have evaluation details defined for the task or sub tasks in the “Maintenance Task” business component.

Parameter Node with and without Value / Eval. Response:

When the parameter information is displayed in the tree interface, if the 'Value/ Eval. Response' is already defined for that parameter, the saved 'Value / Eval. Response' value is displayed along with the parameter, concatenated by "::", in ‘**Bold Blue**’ font. If the 'Value/ Eval. Response' is not defined for the parameter, the parameter node is displayed in ‘**Bold Red**’ font.

Example:

If the ‘Exec. Doc #’ is HVY-003482-2010, ‘Task #’ is 53A0051-HFEC, ‘Sub Task Desc.’ is “Inspection of Crack Length” and ‘Parameter’ is “Length”. The tree structure is displayed as follows:

Without Value / Eval. Response:

HVY-003482-2010

|

53A0051-HFEC

|

Inspection of Crack Length

|

Length

With Value / Eval. Response:

HVY-003482-2010

|

53A0051-HFEC

|

Inspection of Crack Length

|

Length :: 5mm

Parameter reading / conditional evaluation details:

2. On clicking the “Task #” and “Sub Task #” nodes in the tree interface, the system displays the details in the Parameter Reading / Evaluation Form” group box and in the “Conditional Maintenance Evaluation” multiline, in the right pane.
3. The system displays the following fields in the **Parameter Reading / Evaluation Form** group box:

- **Task #**
- **Task Desc.**
- **Sub Task Desc.**
- **Sub Task Seq #**
- **Aircraft Reg #**
- **Part # / Serial #**
- **Parameter**
- **Parameter Desc.**
- **Permitted Values** defined for the 'Task # - Sub Task Seq # - Parameter' combination
- Current Value of the parameter
- **“Mandatory?”** which Indicates whether the Value / Eval. Response recording is mandatory or not for the parameter.
- **Update Mode** of the parameter

4. Enter the **Value / Eval. Response** value indicating the actual value / response observed against the parameter as part of the compliance of the task.
5. Enter the execution remarks in the **Exe. Remarks** field.

6. Enter the date and time at which the parameter details are updated in the **"Update Date & Time"** field.

7. Enter the employee code of the login user who updated the parameter details in the **Updated by** field.

8. In the **Conditional Maintenance Evaluation** multiline, the system displays the **Processed?, Trigger Value, Trigger Value (Min), Trigger Value (Max), Follow-up Action, Follow-up Task #, Records Follow-up Instructions** and **Evaluation Remarks.**

9. Click the **Update Parameter Reading / Eval. Form** pushbutton to update the parameter reading details and conditional evaluation details for the task.

Managing employee work

The supervisors can assign work to the employee, book the timesheet and report the actual work details. As a supervisor, you can carry out the following:

- Search for the reference document specific to the aircraft registration number. The system displays the tasks that are mapped to the document.
- Map the employee for each combination of reference document and the task number.
- Enter the assignment details such as start date / time, end date / time, assignment comments, employee comments, etc.
- Select the **Update Mode** as "Assignment" and click the **Update Details** pushbutton.
- Book the timesheet for the employee and modify the timesheet details.
- Select the **Display Option** and **Update Mode** as "Work Actuals" and click the **Update Details** pushbutton to update the actual work details of the employee at task level.

1. Select the **Manage Employee Work** tab in the **Manage Work Assignments and Reporting** page. *See Figure 3.6*.

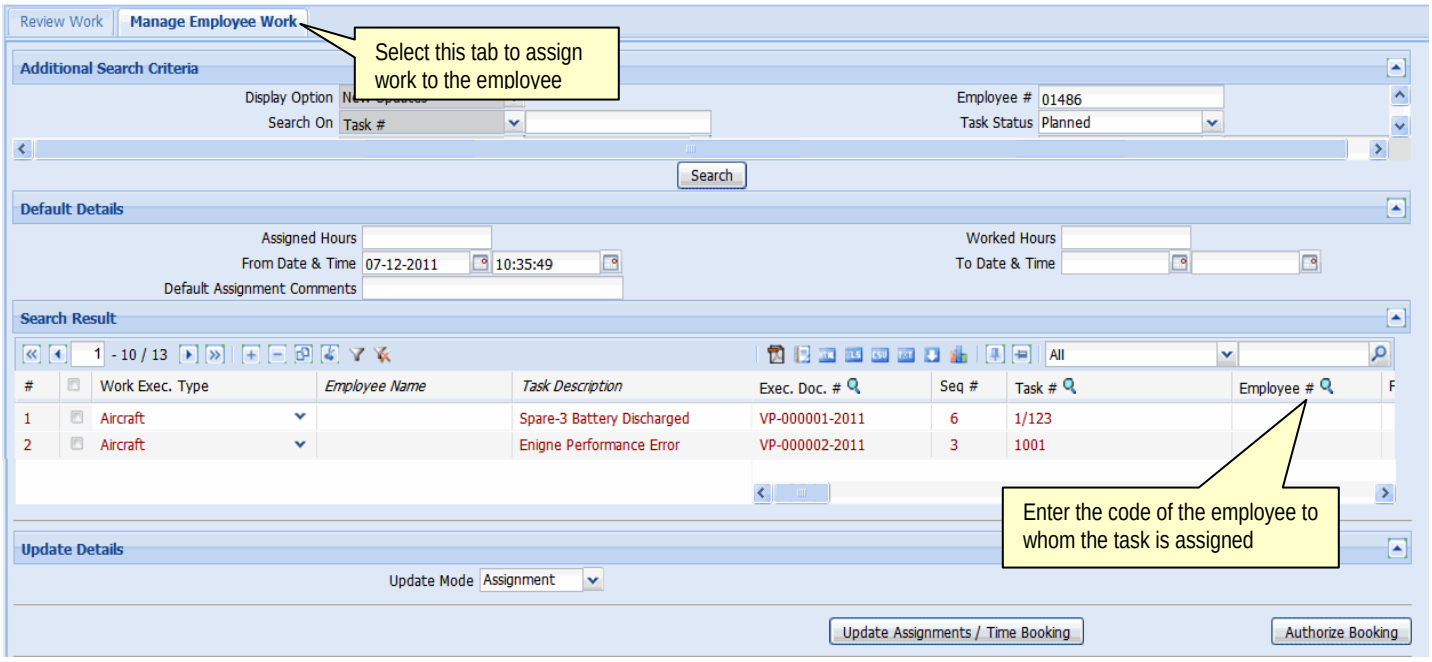


Fig 3.6 Managing employee work

2. In the **Additional Search Criteria** group box, select the **Display Option** as "New Updates", "Assigned Records" or "Work Actuals", for displaying the work assignment details in the multiline.

3. Enter the **Employee #**.

4. Select the **Search On** based on which the task details are retrieved and displayed in the corresponding search details multiline. An editable box is provided alongside in which the values corresponding to the item selected in the drop-down list box are entered.

5. Select the **Task Status** as "Planned", "In-Progress", "Incomplete", "Deferred" "Completed", "Pre-Closed", "Closed" or "Planned & In-Progress".

6. Specify the **Task Category** and the **Exec. Phase** of the task. The Execution Phase may be "Post Flight", "Preparatory" or "Regular".

7. In the **Default Details** group box, enter the **Assigned Hours**, **Worked Hours**, **From Date & Time**, and **To Date & Time** and **Default Assignment Comments** and click the **Search** pushbutton.

8. In the **Search Results** multiline, select the **Work Exec. Type** as Aircraft or Shop and enter the **Exec. Doc. #**, **Seq #**, **Task #** and **Employee #**.

9. Enter the **From Date**, **From Time**, **To Date** and **To Time** indicating the work assignment date and time or actual start / end date and time, based on the **Update Mode** selected.

10. Enter the **Assigned Hours**, **Worked Hours**, **Repair Classification**, **Attendance Type, I-Direct Category, Assignment Comments** and **Employee Comments**.

*Note: You must enter the **Assignment Comments** either in the multiline or in the **Default Details** group box.*

11. Enter the current date and time in the **Updated Date Time** field.

12. Enter the name of the supervisor who authorized the time sheet bookings in the **Updated By** field and the remarks in the **Update Remarks** field.

13. Select the **Update Mode** as “Assignment” or “Work Actuals”, in the **Update Details** group box.

14. Click the **Update Assignments / Time Booking** pushbutton to update and record employee time sheet booking details.

15. Click the **Authorize Booking** pushbutton to authorize the timesheet booking details for an employee.

Recording work hold details

This activity allows you to put documents and tasks on hold for a particular duration. Tasks can be put on hold due to various business reasons, such as non-availability of a part or non-availability of a resource. Only those tasks that are in “Fresh”, “Planned” “In-Progress” and “Completed” statuses can be put on hold. You can capture the hold details at task level or at document level. You can also release the documents and tasks which are ‘held’.

You cannot perform any action on the tasks that are on hold. For e.g. you cannot change the status, update task plan, record timesheet or create a material request for these tasks.

1. Select the **Record Work Hold** link in the **Review Work** tab of the **Manage Work Assignments and Reporting** activity. The **Record Work Hold** page appears. *See Figure 3.7.*

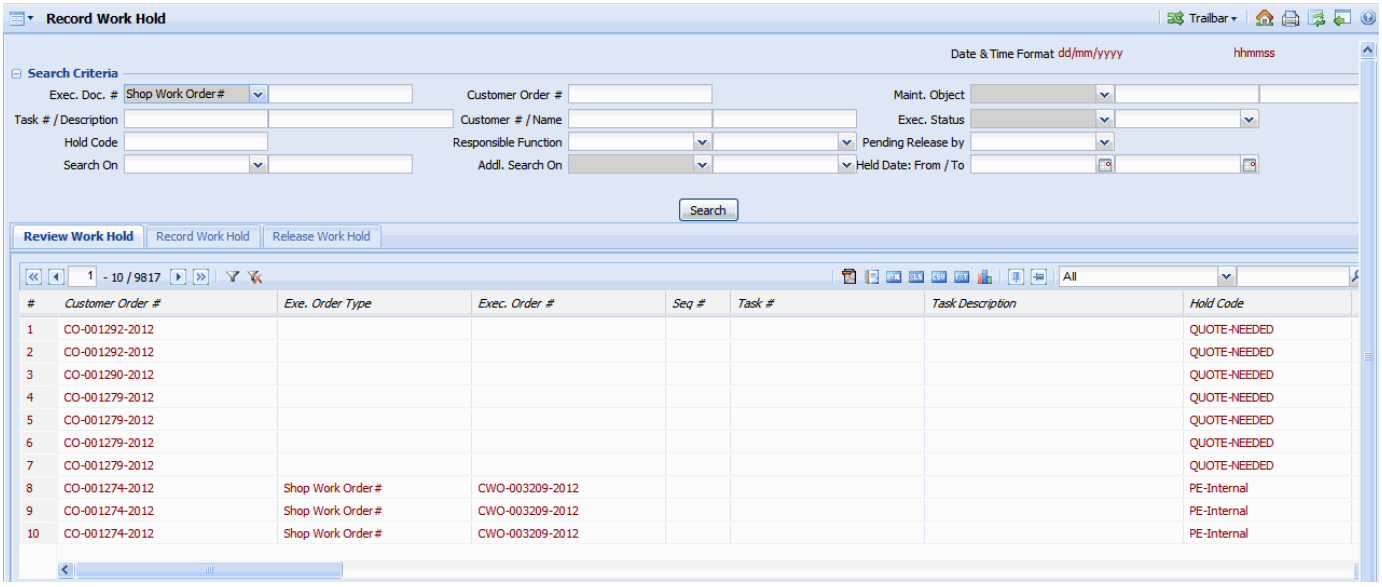


Figure 3.7 Recording work hold details

In the **Search Criteria**,

2. Enter the **Exec. Doc.** # **and the other search criteria details** and click the **Search** pushbutton to retrieve the search details in the multiline.

3. Select the **Review Work Hold** tab page to view all the tasks and associated customer orders and shop work orders put on work hold and released.

4. Select the **Record Work Hold** tab page to record work hold details.

5. Select the Release Work Hold tab page to release work hold put previously.

Reviewing work hold details

In this section you can view details of work order, customer order and the associated tasks put on hold as well as those that are released.

Recording work hold details

In this tab page, you can record the hold details for a document or a task /shop work order and can also retrieve hold details that are previously defined. You can record hold details such as hold code associated to the hold, duration of hold, permitted delay duration. Only those tasks that are in Fresh, Planned and In-Progress, Completed statuses can be put on hold.

1. Use the **Exe. Order Type** drop-down list box to select the execution document for which you wish to record work hold details.
2. Use the drop-down list box to select the **Hold Code** and enter any additional comments relating to the hold in the **Hold Comments** field.
3. Enter the **Initiated By** for the person responsible for initialing work hold.
4. Enter **Released By for** the person responsible for releasing the work hold
5. Click the **Record Work Hold** pushbutton to record the hold details for the task. You can also release the held task.

Releasing work hold

This page enables you to view the tasks on hold, which can be released. The system displays **Exe. Order Type**, **Exec. Order #**, **Task #**, **Hold Code**, **Hold Level**, **Hold Category**, **Released By** and other details in this tab

1. Click the **Release Work Hold** pushbutton to release hold on tasks.

Recording work estimates

This activity provides an overview of the estimation status of all the shop work orders. You can retrieve the parent work orders and child work orders for which estimates are available. Both external work orders and internal work orders can be retrieved in this page. Internal work orders are those that are basically created for MRO use, whereas external work orders are customer based. For the work orders retrieved, you can view the estimation status at task level and confirm the estimates.

You can also retrieve the actual parts and resources utilized for the execution of the task. You can estimate the number of parts and/or resources required by the mechanic for completing each task within a shop work order. After the estimation is complete, you can confirm the part and resource estimates. On confirming the estimation, if the work order has a customer order reference, a quotation service will be triggered.

You can also estimate the charges for the tasks in the work order.

This activity allows you to accomplish the following:

- Retrieve parent work orders and child work orders for which estimates are available and for which estimates are to be done.
- View the estimation status of the work orders.
- View estimation status at task level.
- Retrieve actual parts / resources utilized for task execution.
- Estimate parts / resources required for executing tasks within the order.
- Confirm part / resource estimates.
- Estimate charges for the tasks within the work order.

Recording work estimates

1. Select the **Record Work Estimates** activity under the **Work Monitoring and Control** business component. The **Record Work Estimates** page appears.
2. Enter the **Search Criteria** to retrieve the work orders in the multiline.

Note: You can specify the customer number and the customer name if you wish to retrieve external work orders.

3. In the **Display Option** field, select one of the following radio buttons:
    - **Top Assly. Work Orders -** Select this radio button, if you wish to display only the parent work orders.
    - **All Work Orders -** Select this radio button, if you wish to display both the parent work orders and the child work orders.

4. Click the **Search** pushbutton to retrieve the **Search Results** in the multiline.

5. Click the hyperlinked execution document number in the multiline. The **Edit Work Estimates** page appears. *See Figure 3.8.*

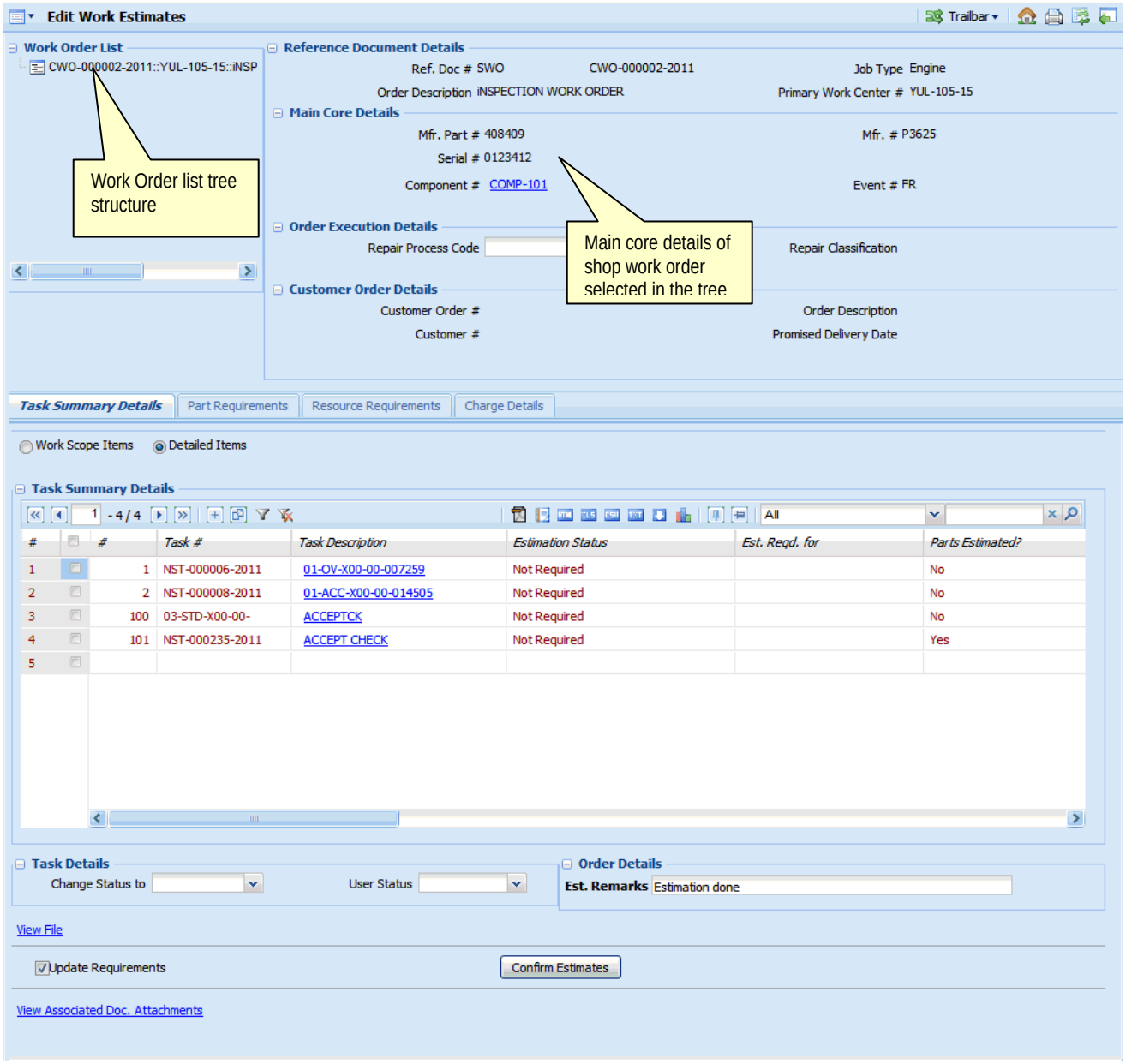


Figure 3.8 Recording work estimates

Work Order List Tree

The system displays the “Work Order List” tree in the left pane, which displays the work order selected in the “Record Work Estimates” page, and its child work orders. The parent shop work order is displayed as the first level node. The child work orders available in the parent work order are displayed as sub-nodes under the following folders:

- **Pending Estimates**: All the child work orders whose estimation status is “Pending Estimates”, are displayed under this folder.
- **Pending Confirmation**: All the child work orders whose estimation status is “Pending Confirmation”, are displayed under this folder.
- **Pending Re-estimates**: All the child work orders whose estimation status is “Pending Re-estimates”, are displayed under this folder.
- **Confirmed Estimates**: All the child work orders whose estimation status is “Confirmed Estimates”, are displayed under this folder.
- **Released Estimates**: All the child work orders whose estimation status is “Released Estimates”, are displayed under this folder.
- **Not Applicable**: All the child work orders whose estimation status is “Not Applicable”, are displayed under this folder.

The tree structure is as follows:

Parent SWO #

- Pending Estimates

- Child SWO # :: Work Center # :: SWO Desc. :: Order Status

- Pending Confirmation

- Child SWO #:: Work Center # :: SWO Desc. :: Order Status

- Pending Re- Estimates

- Child SWO #:: Work Center # :: SWO Desc. :: Order Status

- Confirmed Estimates

- Child SWO # :: Work Center # :: SWO Desc. :: Order Status

- Estimates Released

- Child SWO #:: Work Center # :: SWO Desc. :: Order Status

- Not Required

- Child SWO #:: Work Center # :: SWO Desc. :: Order Status

In the right pane, the system displays **Reference Document Details**, **Main Core Details**, **Order Execution Details** and **Customer Order Details** for the work order selected in the tree.

To proceed,

- Select the **Task Summary Details** tab to confirm the estimates of the tasks in the work order.
- Select the **Part Requirements** tab to estimate part requirements for the execution of tasks within the work order.
- Select the **Resource Requirements** tab to estimate resource requirements for the execution of tasks within the work order.
- Select the **Charge Details** tab to estimate the charges of the task within the work order.

Task summary details

This tab provides an overview of the estimation details of the task within the work order. . You can also confirm the part / resource estimates.

1. The **Task Summary Details** tab appears by default in the **Edit Work Estimates** main page. *See Figure 3.9*.

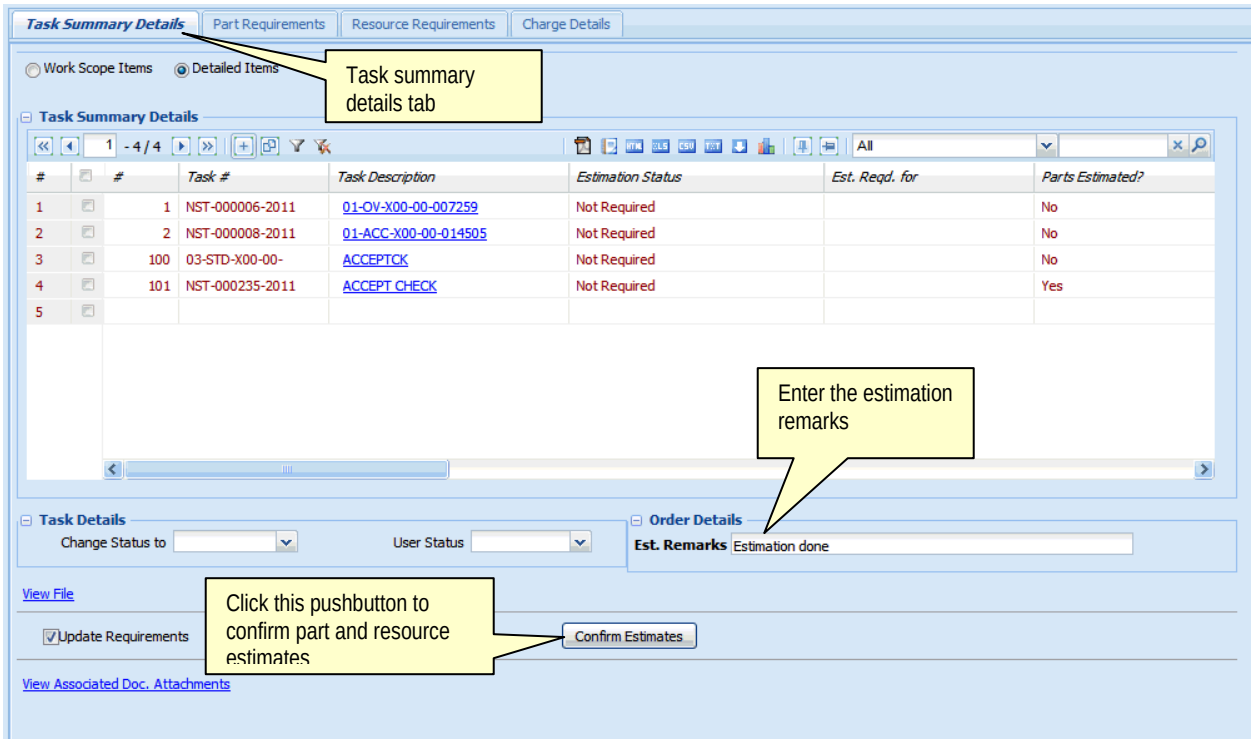


Figure 3.9 Edit work estimates - Task summary details

2. Select one of the following radio buttons above the multiline:

   - **Work Scope Items -** Select this radio button to display all the tasks that have WBS code for which the process parameter 'Workscoping Element' is set as

"Yes" in the "Set Process Parameters" page of the "Common Master" business component.

- **Detailed Items -** Select this radio button to display all the tasks that have WBS code for which the process parameter 'Execution Operations?' is set as "Yes".

In the **Task Summary Details** multiline, the system displays the following estimation details:

- **Est. Reqd. for** which indicates whether estimation is required for parts, resources or specific part. The system displays the following values:
  - Mtl. Est – Indicates that estimation is required for the parts.
  - Res. And Mtl. Est – Indicates that estimation is required for both parts and resources.
  - Specific Part – Indicates that estimation is required for a specific part.
- **Parts Estimated?** which indicates whether part estimates are available for the task.
- **Resource Estimated?** which indicates whether resource estimates are available for the task.
- **Est. Reqd.?** indicating whether part / resource estimation is required for external work orders.
- Parent task details, Root task details.

3. Select 'Yes' or 'No' in the **Warranty Reco.?** drop-down list to specify whether warranty is recommended for the part.
4. Enter the **Estimation Remarks** for the part / resource.
5. In the **Task Details** group box, use the **Change Status to** drop-down list box to change the status of the task. You can select the value "Not Required" only if the Estimation Status of the task is "Pending Estimates" or "Pending Confirmation".
6. In the **Order Details** group box, enter the **Est. Remarks.**
7. Check the **Update Requirements** box to update the part and resource requirement details in the execution side.
8. Select the **Confirm Estimates** pushbutton to confirm the part and resource estimates.

Note: Only tasks with Estimation Status as "Pending Confirmation", can be confirmed.

- On clicking this pushbutton, the system triggers Quotation service, if the work order has a customer order reference.

- Generates material request for a part, only when the following conditions are satisfied:
  - The status of the task is “Planned’ or “In-Progress”.
  - ‘Need Frequency’ of the part is “Always”.
  - Part # for which the MR is generated, must be always 'Effective' to the main core component defined in the “Aircraft” business component.
  - MR is generated for the newly added part and for the part retrieved for which the ‘Est. Qty’ is modified in the “Part Requirements” tab page.
  - The process parameter ‘Prevent Material Request?’ for the Entity Type “Hold Code” is not set as “Yes” in the “Set Process Parameters” page of the “Common Master” business component.

To proceed,

▼ Select the **View Associated Doc. Attachments** link to view the associated document attachments.

Estimating part requirements

In this page, you can retrieve all the tasks within the work order and the estimate the part requirements.

1. Select the **Part Requirements** tab in the **Edit Work Estimates** main page. *See Figure 3.10.*

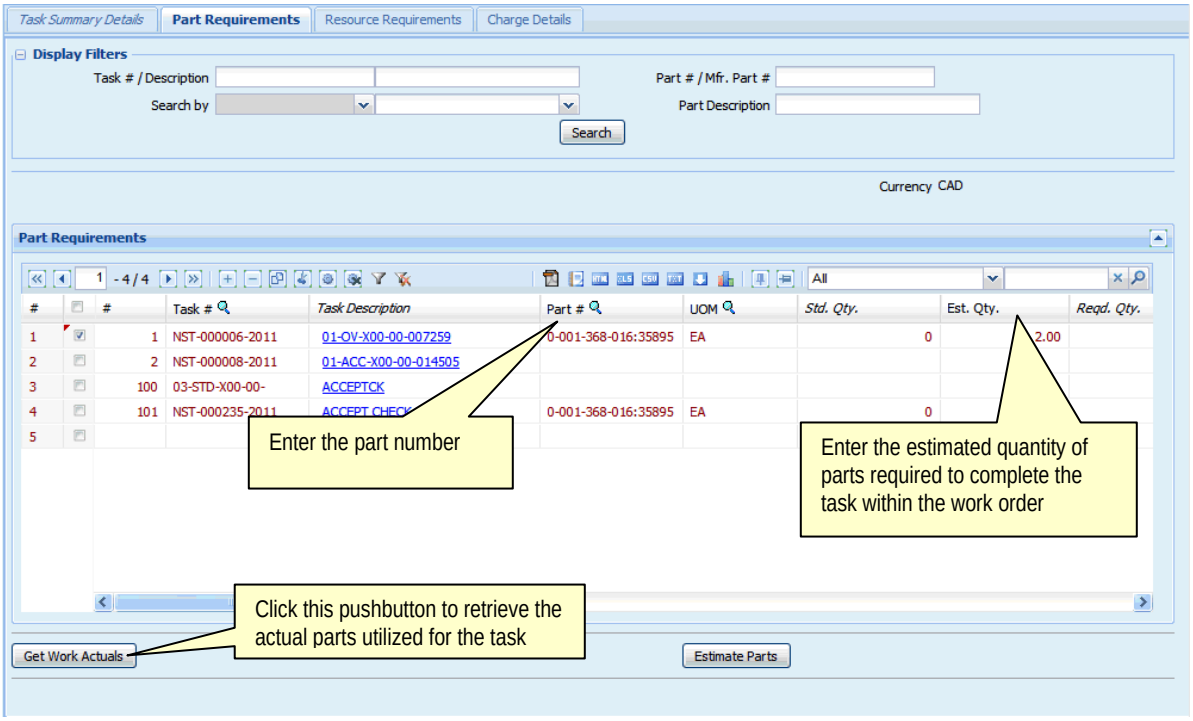


Figure 3.10 Estimating part requirements

2. Enter the search criteria in the **Display Filters** group box and click the **Search** pushbutton to retrieve the details of part requirements estimated for execution of task within the work order.

3. In the **Part Requirements** multiline, enter the sequence # of the task and the **Task #**.

4. Enter the **Part #** / **Mfr. Part # - Mfr. #** and **UOM** for the part.

5. Enter the **Est. Qty.** indicating the estimated quantity of parts required to complete the task within the work order.

6. Click the **Get Work Actuals** pushbutton to retrieve the execution related details i.e. actual parts utilized for the execution of the task.

7. Click the **Estimate Parts** pushbutton to estimate the part requirements.

Estimating resource requirements

In this tab, you can retrieve the actual resources utilized for the execution of the task, and estimate the resource requirements.

1. Select the **Resource Requirements** tab in the **Edit Work Estimates** main page. *See Figure 3.11.*

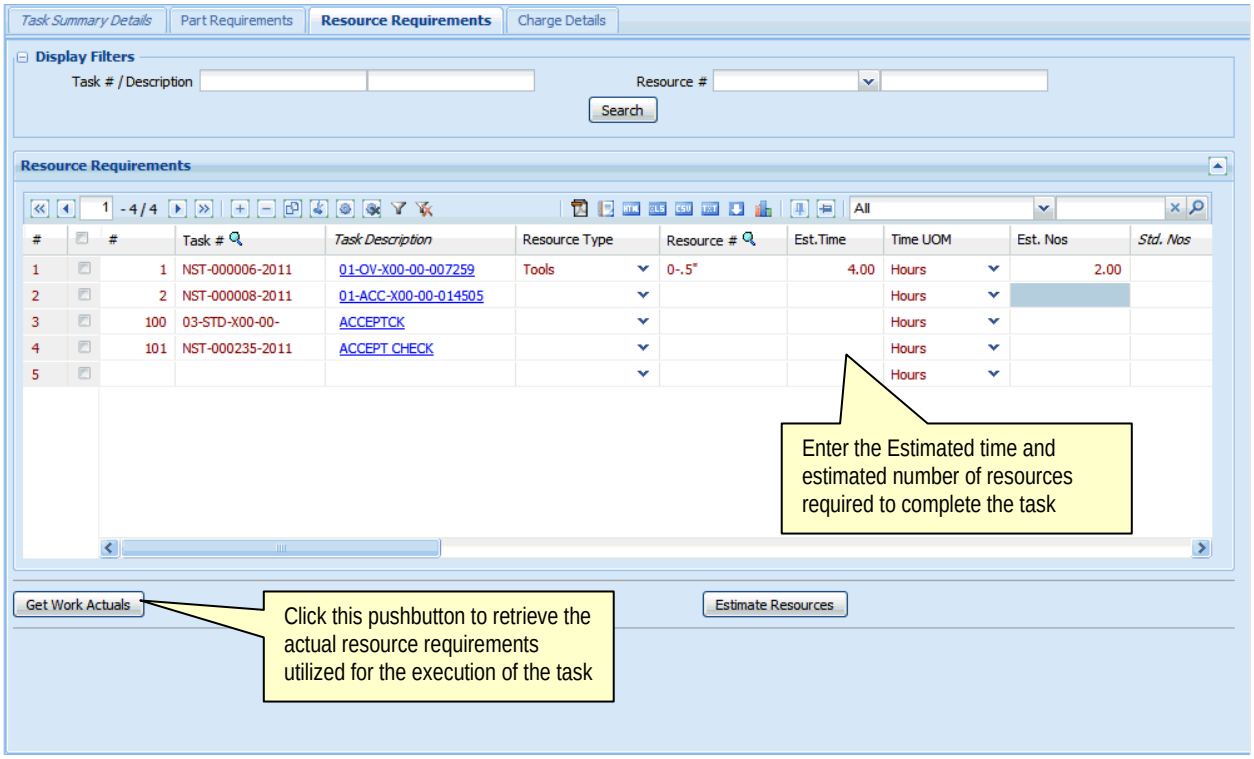


Figure 3.11 Estimating resource requirements

2. Enter the search criteria in the **Display Filters** group box and click the **Search** pushbutton to retrieve the details of resource requirements estimated for execution of task within the work order.

3. In the **Resource Requirements** multiline, enter the sequence # of the task and the **Task #**.

4. Select the **Resource Type** as ‘Skills’, ‘Tools’, ‘Equipment’ or ‘Others’, and enter the **Resource #**.

5. Enter the **Est. Nos** indicating the estimated number of resources required to complete the task within the work order.

6. Enter the estimated elapsed time required for the resource to complete the task, in the **Est. Time** field.

7. Click the **Get Work Actuals** pushbutton to retrieve the execution related details i.e. actual resources utilized for the execution of the task.

8. Click the **Estimate Resources** pushbutton to estimate the resource requirements.

Estimating charges

This tab allows you to estimate the charge details for the tasks within the work order. You can specify the charge code and the variant number of the charge code. Variants indicate the individual characteristics of charge codes, which may vary as per geographies, suppliers, etc.

1. Select the **Charge Details** tab in the **Edit Work Estimates** main page. See *Figure 3.12.*

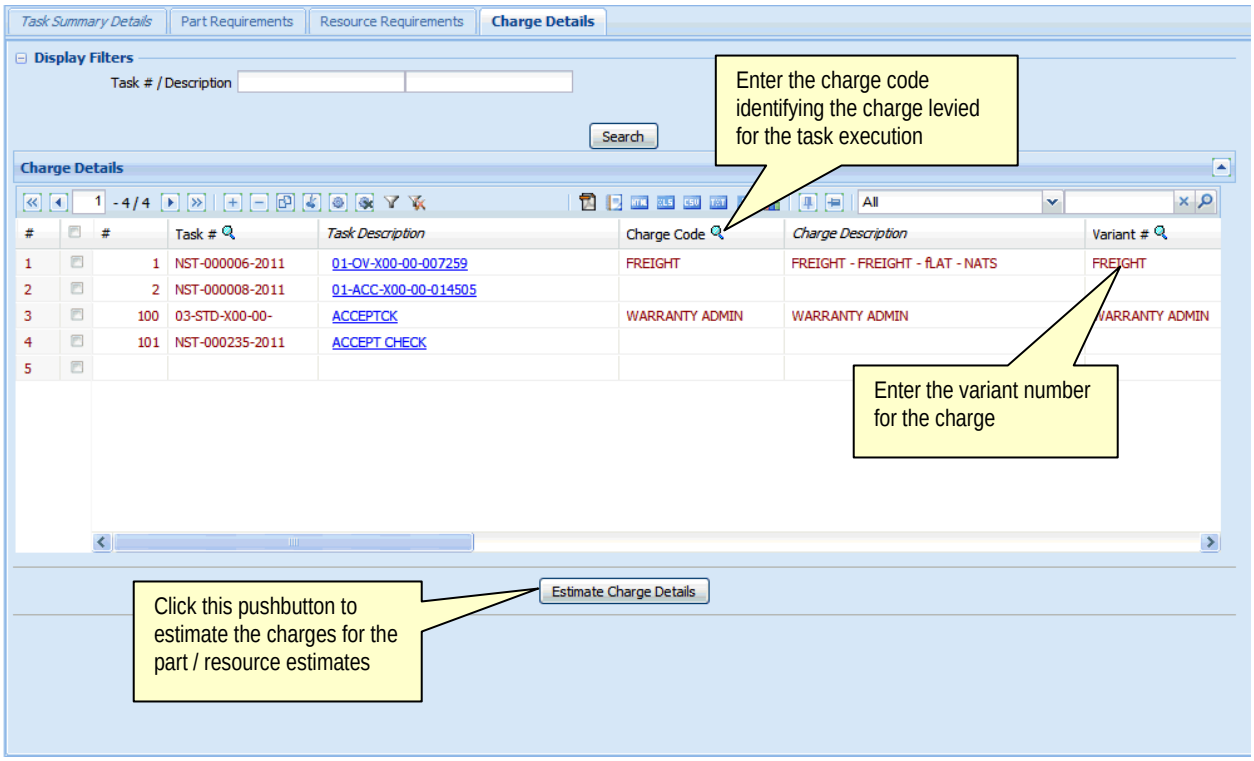


Figure 3.12 Estimating charges

2. Enter the search criteria in the **Display Filters** group box and click the **Search** pushbutton to retrieve the charge details in the multiline.

3. In the **Charge Details** multiline, enter the sequence # of the task and the **Task #**.

4. Enter the **Charge Code** identifying the charge levied for the task execution. The charge code entered must be in 'Active' status with TCD Type "Charge" and TCD Basis "Flat", as defined in the **Tax, Charges & Discount (TCD)** business component.

5. Enter the **Variant #** which is the identification number of the variant of the charge.

Note: Variants indicate the individual characteristics of charge codes, which may vary as per geographies, suppliers, etc. For example, you can define TCD code as 'Excise duty' and variants as 'Excise duty of USA' or 'Excise duty of Europe'. You can define multiple variants for a TCD code. The variant details can be defined for each organization unit.

6. Enter the **TCD Amount**, **TCD Currency**, and **Estimation Remarks**.

7. Click the **Estimate Charge Details** pushbutton to estimate the charges for the part / resource estimates.

Chapter 4/ Discrepancy Processing

Journey details pertaining to a flight undertaken by an aircraft is recorded in the journey log. During the flight, if the pilot or the cabin crew notice any discrepancies in the aircraft, these discrepancies are also recorded in the Journey Log and processed in the Discrepancy Processing business component. Discrepancies noted by the mechanic are recorded in the Technical log, component work order or hangar work order.

The **Discrepancy Processing** business component enables you to create a maintenance report by grouping discrepancies of similar nature, reported in the journey log, technical log, hangar work order or component work order. A maintenance report contains the work units to be executed for resolving the discrepancies. The maintenance report can be executed or deferred. In case of deferment, you need to identify the faulty item and mention the deferral limits.

You can also retire discrepancies, that is, close discrepancies permanently. You can also revise the deferral limits set for the discrepancy.

Identifying discrepancy resolution procedures

You can identify the resolution procedure that must be executed on the component to resolve the discrepancy reported for the component.

1. Select **Identify Resolution Procedure** under the **Discrepancy Processing** business component. The **Select Discrepancies/Maintenance Reports** page appears.

2. Enter the **Search Criteria** to retrieve discrepancies or maintenance reports for which resolution procedure must be identified.

3. Based on the search criteria, the details are retrieved and displayed in the **Search Results** multiline.

*Note: The system retrieves all the discrepancies and maintenance reports created in all the organization units, based on the option selected for the parameter (HHMM or Decimal Format) in the **Aircraft** business component while parameter creation. The system retrieves maintenance reports and discrepancies that have the processing status as "None".*

4. Select the discrepancy or maintenance report in the multiline and select the **Identify Resolution Procedure** link. The **Identify Resolution Procedure** page appears. *See Figure 4.1.*

Note: Maintenance reports will be created for discrepancies selected in this page. You can group related discrepancies reported on a component, into a single maintenance report.

5. The system automatically generates the **Maint. Report #,** if a **MR #** is not available. Enter the **Maintenance Report Description, Maintenance Report Class** to which the maintenance report belongs and the **Tracking Status** that is applicable to the maintenance report.

6. Enter the **ATA number**, **Fault #** and **Cause #** that are applicable to the discrepancy being reported.

7. The system displays the **Processing Status** of the maintenance report, which can be "None" or "Under Analysis".

8. In the **Discrepancy Details** multiline, specify the discrepancy number(s) that have been raised against the component.

9. You can also specify the **engineering advice note number** that relates to this maintenance report.

10. In the **Suggested Transfer Details** group box, you can specify the **Component number**, **part number** and **part serial number** to which the discrepancy has been transferred.

11. In the **Resolution Basis** group box, specify the **Resolution Type** for the procedure, which can be “Corrective” or “Repetitive”.

12. In the **Resolution Procedure** multiline, provide details about the work units that have to be executed on the component to resolve the discrepancies reported. You can specify more than one work unit for resolving the discrepancy.

13. Use the links below the **Resolution Procedure** multiline, to edit part requirements, resource requirements, access panel details and work area/zone details, and to view task details and standard procedure for new tasks in the resolution procedure.

14. Click the **Record Procedure** pushbutton to record the details.

Note: The processing status of the maintenance report, as well as each discrepancy in the report, is updated to “Under Analysis”.

The system updates the analyzed date with the current date and the analyzed organization unit with the current organization unit. The system retrieves all the consumption parameters, based on the option selected for the parameter (HHMM or Decimal Format) in the Aircraft business component while parameter creation.

15. Click the **Confirm Procedure** pushbutton to confirm the details entered.

Note: The processing status of the maintenance report, as well as each discrepancy in the report, is updated to “Analyzed”.

If the discrepancy/maintenance report is applicable for a “Component”, the system updates the record status of the discrepancies associated to the maintenance report as “Pending”.

16. Click the **Cancel Report** pushbutton to cancel the maintenance report for which the resolution procedure has been identified.

Note: The record status of the maintenance report is set to “Cancelled”. Discrepancies are unmapped from the maintenance report and the record status of each discrepancy is set to “Pending”.

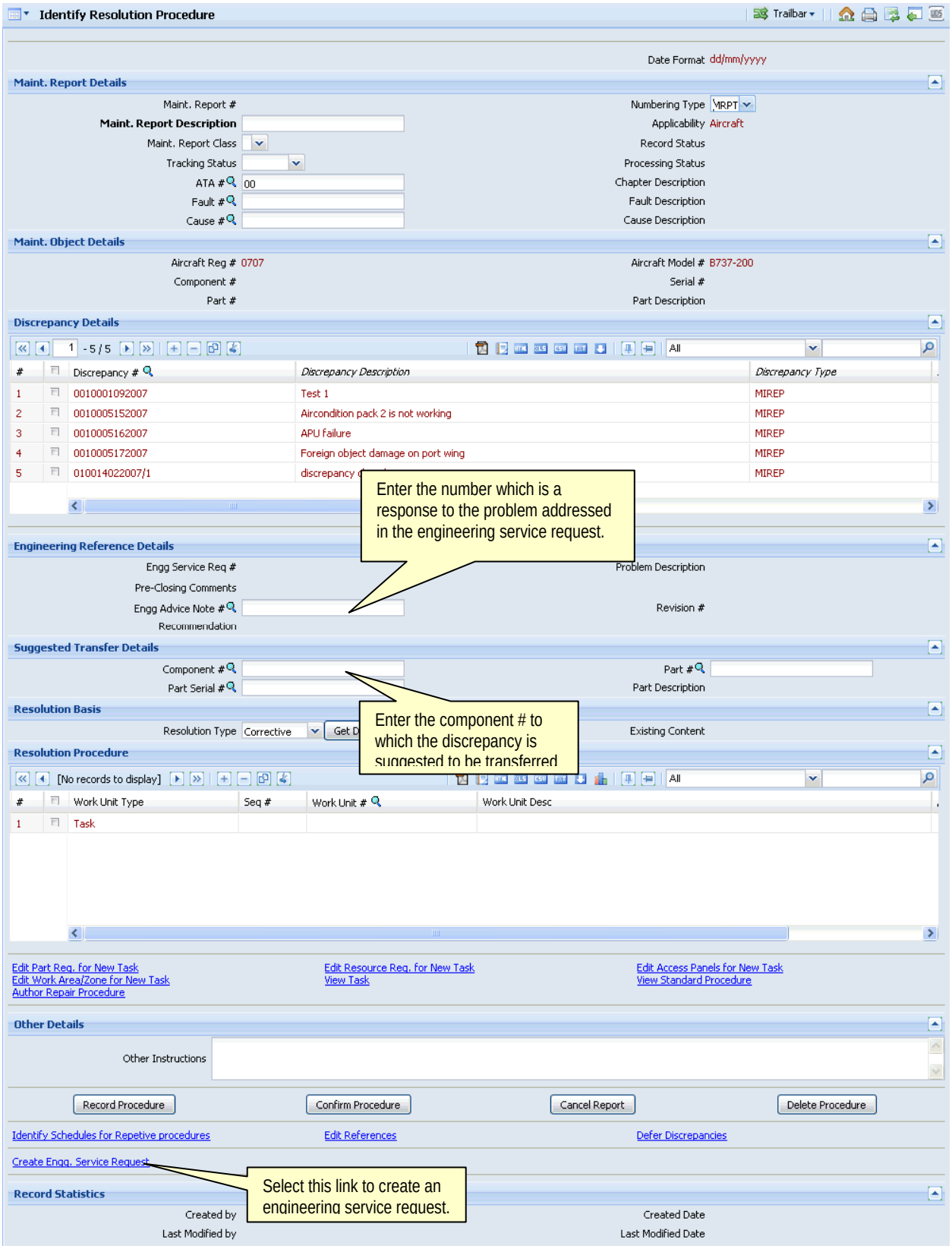


Figure 4.1 Identifying resolution procedure

17. Click the **Delete Procedure** pushbutton to delete the resolution procedure details identified for the discrepancy or maintenance report.

Note: The processing status of the maintenance report, as well as each discrepancy in the report, is set to "None".

You can proceed to do the following:

- Select the **Identify Schedules for Repetitive Procedures** link, to define schedules for repetitive procedures.
- Select the **Edit References** link, to provide document references for a maintenance report.
- Select the **Defer Discrepancies** link to postpone the resolution of discrepancies.
- Select the **Create Engg. Service Request** link, to create an engineering service request for the maintenance report.

Note: Refer to the "Engineering Change Management" User Guide for more details on creating engineering service requests.

Identifying schedules for repetitive procedures

You can specify schedules for resolution procedures that must be executed repeatedly at a regular time interval.

1. Select the **Identify Schedules for Repetitive Procedures** link from the **Identify Resolution Procedure** page. The **Identify Schedules for Repetitive Procedures** page appears. *See Figure 4.2.* Schedules can be time-based (that is, execute work units at regular interval of time) or usage-based (that is, execute work units based on the parameter usage).
2. In the **Schedule Basis** group box, use the **Schedule Type** drop-down list box to specify the type of schedule, which can be "Time based", "Usage based" or "Time & Usage Based".
3. Use the **Valid on Transfer?** drop-down list box to specify whether the schedule is valid if the discrepancy or maintenance report is transferred to another component.
4. For a time-based schedule, enter the relevant details in the **Time Based Schedule** group box. Enter the **Time Unit** for the schedule, which can be "Hours", "Days" or "Months".
5. Enter the **Fixed Interval** or **Floating interval** to indicate the period after which the work unit must be executed.

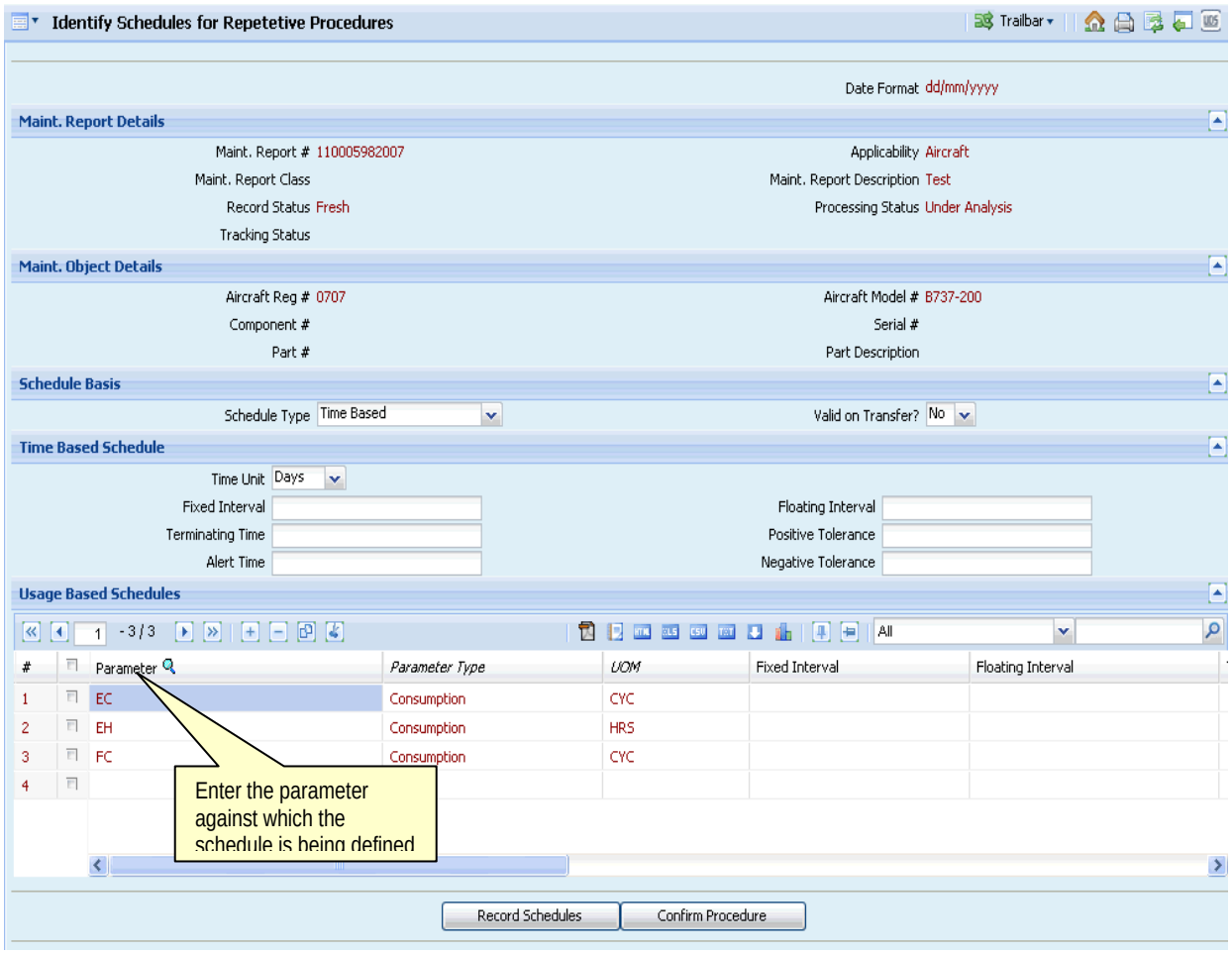


Figure 4.2 Identifying schedules for repetitive procedures

6. For a parameter-based schedule, enter the relevant details in the **Usage Based Schedules** multiline. Enter the **Parameter** against which the schedule is being defined. Specify the **UOM**, **Fixed Interval** and **Floating Interval**.

7. Click the **Record Schedules** pushbutton to record the schedule details entered.

8. Click the **Confirm Procedure** pushbutton to confirm the details entered.

Providing document references for a resolution procedure

You can attach documents that you have referred, for identifying a resolution procedure for a maintenance report.

1. Select the **Edit References** link in the **Identify Resolution Procedure** page. The **Edit References** page appears. *See Figure 4.3.*

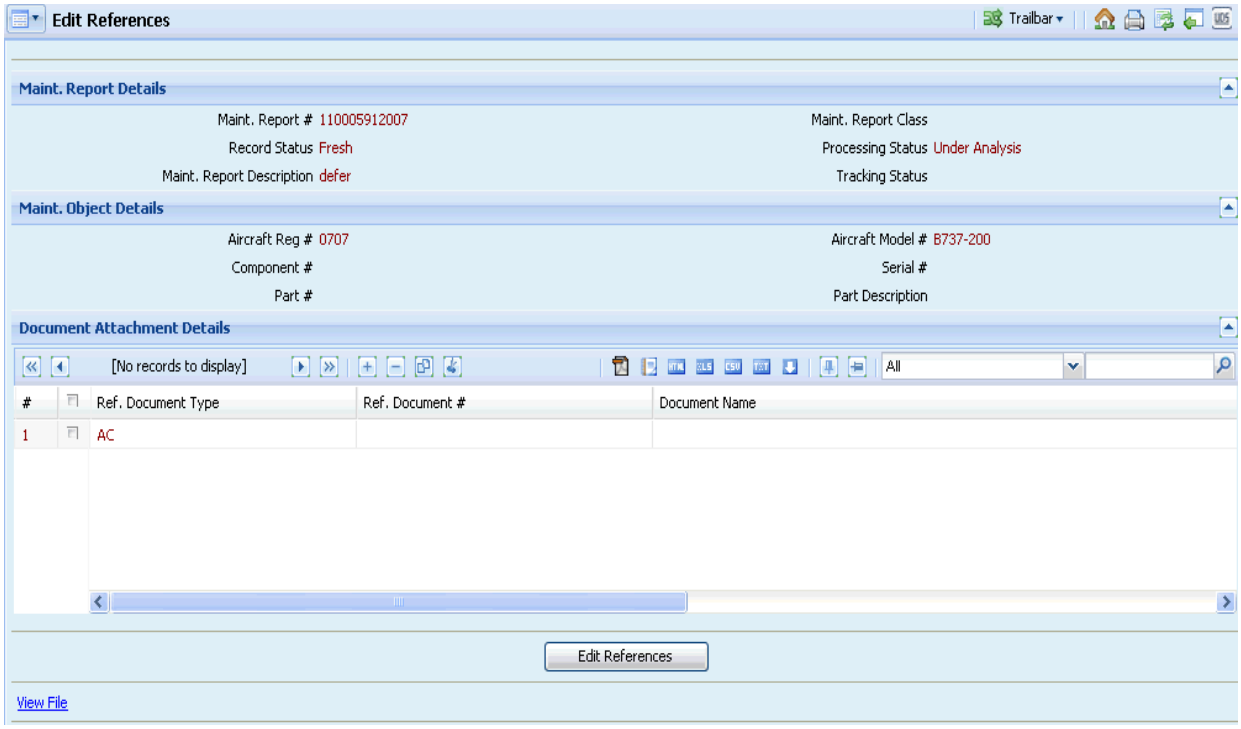


Figure 4.3 Providing document references to resolution procedure

2. Details of the maintenance report are displayed in the **Maint. Report Details** group box.

3. In the **Document Attachment Details** multiline, specify the **Ref. Document Type**, **Ref. Document #** and **Document Name** fields.

4. Click the **Edit References** pushbutton to save the reference details.

The system maintains a detailed resolution history for the discrepancy and maintenance reports. This includes the reference document details specified, as well as the work units employed to resolve the discrepancy.

You can proceed to do the following:

- Select the **View File** link, to view the reference document attached.

Deferring discrepancies

Sometimes, discrepancies that are reported in documents such as the journey log, technical log, hangar work order, component work order or visit package, may not be resolved immediately. The mechanic may decide to defer or 'carry forward' these discrepancies for various reasons such as non-availability of spares, resources, time, or under-equipped maintenance station.

1. Select **Defer Discrepancies** under the **Discrepancy Processing** business component. The **Select Discrepancies** page appears.
2. Enter the **Search Criteria** to search for discrepancies or maintenance report to be deferred. Based on the criteria, the results are displayed in the **Search Results** multiline.
3. Select the discrepancy and select the **Create Deferral Report** link. The **Defer Discrepancies** page appears. *See Figure 4.4.*

Note: You can group discrepancies of similar nature reported on a component, into a single maintenance report and defer the maintenance report.

4. Use the **Tracking Status** drop-down list box to specify the tracking status of the discrepancy.
5. The system displays the **Record Status** of the maintenance report, which can be "Fresh", "Pending" or "Pending Deferral".
6. Enter the **ATA #** on which the discrepancy has been reported.
7. In the **Discrepancy Details** multiline, enter the **Discrepancy #** that must be deferred and the **Log Item #.**
8. Select the **Source Type** as "Task" or "Discrepancy" and enter the **Source #.**
9. In the **Deferral Details** group box, specify the **Deferral Type**, which can be "MEL", "CDL" or any other deferral type defined as "Active" in the **Configure Document Attributes** activity of the **Common Masters** business component
10. Enter the **Reason for Deferral**.

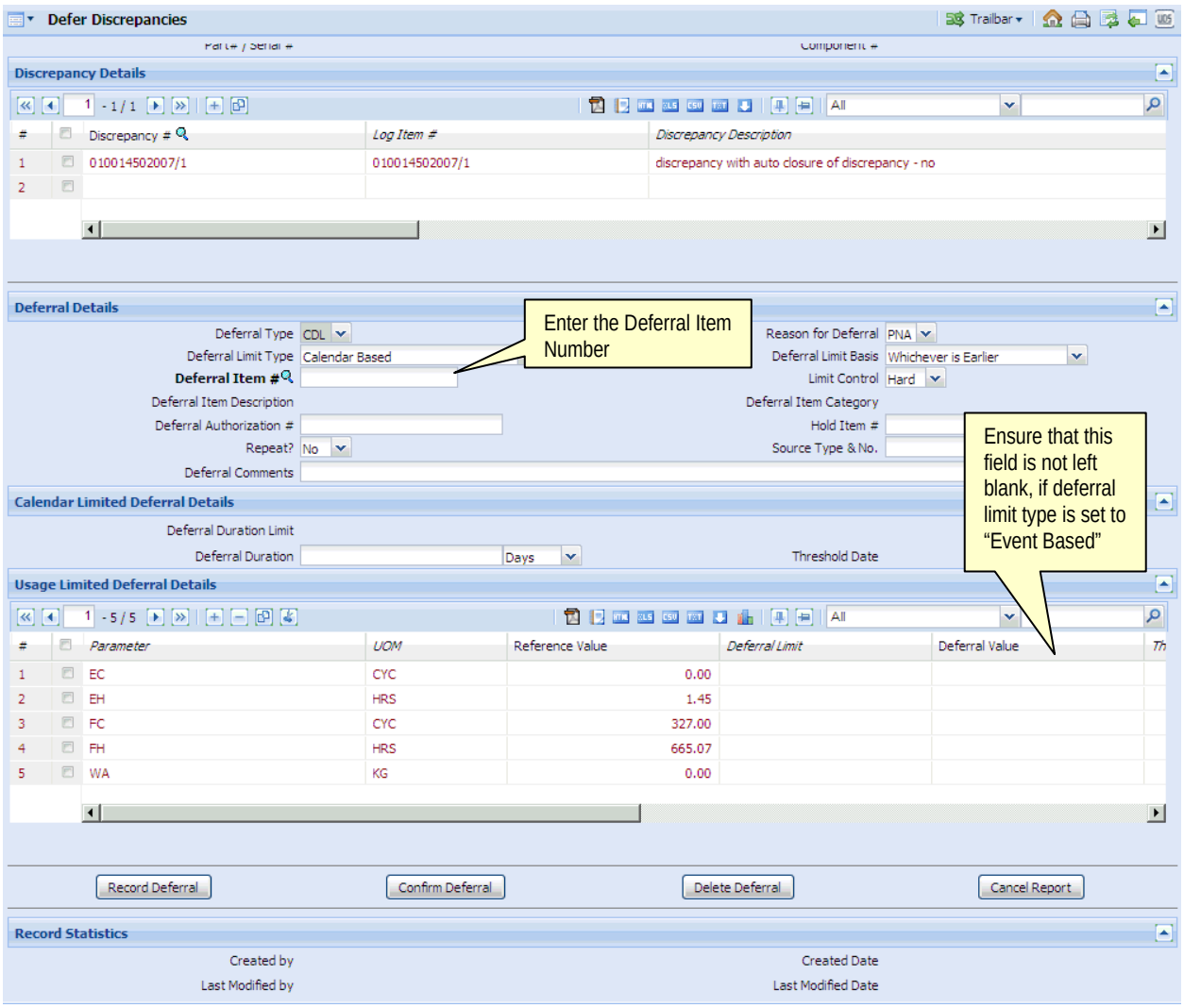


Figure 4.4 Deferring Discrepancies

11. Use the **Deferral Limit Type** drop-down list box to specify the limit type, which can be "Usage Based", "Calendar Based", "Calendar & Usage Based" and "Indefinite".

12. Select the **Deferral Limit Basis**, which can be "Whichever is earlier" or "Whichever is later".

*Note: Ensure that the **Deferral Limit Basis** field is not left blank, if the deferral type is set to "MEL".*

13. Enter the **Deferral Item #**, which denotes the MEL or CDL item number.

14. Use the **Limit Control** drop-down list box to specify the type of limit control, which can be "Hard" or "Suggested".

15. Enter a **Deferral Authorization #** that is required if the item being deferred belongs to MEL.

16. Use the **Repeat**? drop-down list and select “Yes” to specify if the discrepancy needs to be re-inspected at specified intervals. Else select “No”. The relevant details of the selected discrepancy are displayed in the multiline.

17. Enter the **Hold Item #** indicating the tracking number of the deferral against which the discrepancy is reported.

18. Select the **Source Type** as “Task” or “Discrepancy” and the **Source #.**

19. If the deferral is time-based, enter the **Deferral Duration** in the **Calendar Based Deferral Details** group box.

20. If the deferral is usage-based, enter the Deferral Value in the **Usage Based Deferral Details** multiline.

21. Click the **Record Deferral** pushbutton to record the deferral details.

Note: The status of the maintenance report, as well as the discrepancies in the report, changes to “Pending deferral”.

On refreshing the current page, the “Reference Value” field will display the value entered for recording the deferral.

22. Click the **Confirm Deferral** pushbutton to confirm the deferral details.

Note: The status of the maintenance report, as well as the discrepancies in the report, changes to “Deferred”.

The system retrieves all the consumption parameters, the corresponding UOM details and the deferral limit details, based on the option selected for the parameter (HHMM or Decimal Format) in the Aircraft business component while parameter creation.

23. Click the **Delete Deferral** pushbutton to delete the deferral details.

Note: If the “Processing Status” of the maintenance report is “Under Analysis”, then the record status is set to “Fresh”. If the “Processing Status” of the maintenance report is “Analyzed”, then the record status is set to “Pending”. If the record status of the maintenance report is “Pending deferral”, then the record status is set to “Pending”, and usage based deferral details, if any, are deleted.

24. Click the **Cancel Report** pushbutton to cancel the maintenance report referred in this page.

Note: On cancellation, the record status of the maintenance report is set to “Canceled”. The discrepancies are unmapped from the report and their status is set to “Pending”.

Revising deferral limits

You can revise the deferral limits that have already been set for a maintenance report.

1. Select **Revise Deferral Limits** under the **Discrepancy Processing** business component. The **Select Discrepancy** page appears.
2. Enter the **Search Criteria** to retrieve maintenance reports. The details are displayed in the **Search Results** multiline.
3. Click the hyperlinked maintenance report for which the deferral limits must be revised. The **Revise Deferral Limits** page appears. *See Figure 4.5.*
4. The system displays the existing deferral details in the **Deferral Details** group box.

In the **Deferral Revision Details** group box, the existing deferral details are displayed, which you can modify.

5. Use the **Deferral Type** drop-down list box to specify the deferral type for the discrepancy.
6. Enter the **Reason for Deferral**. You can also specify the **Deferral Authorization #**.
7. Use the **Deferral Limit Typ**e drop-down list box to specify the deferral limit type.
8. Use the **Deferral Limit Basis** drop-down list box to specify the deferral limit basis, which could be one of the following: “Whichever is earlier” and “Whichever is later”.
9. Specify the **Deferral Item #** against which a discrepancy has been reported.

Further, you can modify the following, if required.

10. Use the **Limit Control** drop-down list box to specify the limit control, which could be one of the following:

- Hard – Denotes that the discrepancy must be strictly processed within the deferred date or value.
- Suggested – Denotes that a superior can further defer the discrepancy.

11. Specify the **Deferral Authorization #** for the deferral.
12. Specify the tracking item # of the deferred discrepancy in the **Hold Item # field**.

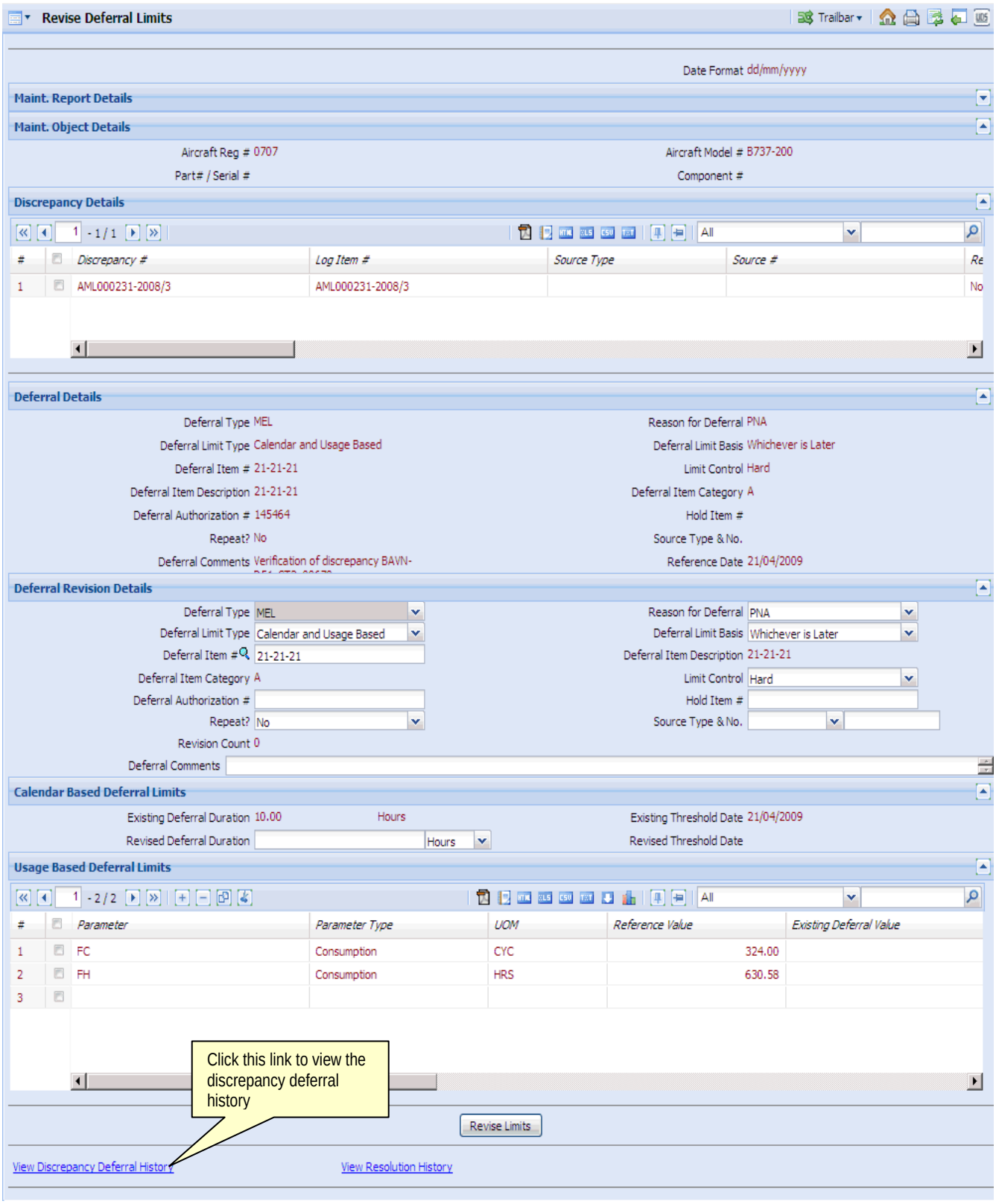


Figure 4.5 Revising deferral limits

13. Use the **Repeat?** drop-down list box to specify whether the discrepancy requires inspection at specified intervals.

14. Specify type and ID of the source of the discrepancy in the **Source Type & No** field.

15. The existing deferral limit details are displayed in the **Calendar Based Deferral Limits** group box. Enter the **Revised Deferral Duration**, which can be in terms of hours, days or months.

16. The existing deferral limit details are displayed in the **Usage Based Deferral Limits** multiline. Enter the **Revised Deferral Value** for each parameter.

17. Click the **Revise Limits** pushbutton to save the revised deferral details.

Note: The system maintains a history of deferral limit revisions.

*The values in the **Revised Deferral Duration** and **Revised Deferral Value** fields are considered as the **Deferral Duration** and **Deferral Value** and updated accordingly in the Maintenance Report.*

Retiring discrepancies

You can terminate discrepancies that are not of relevance. Once a discrepancy is terminated, it will not be available for use in other activities.

1. Select **Retire Discrepancies** under the **Discrepancy Processing** business component. The **Retire Discrepancies** page appears. *See Figure 4.6.*

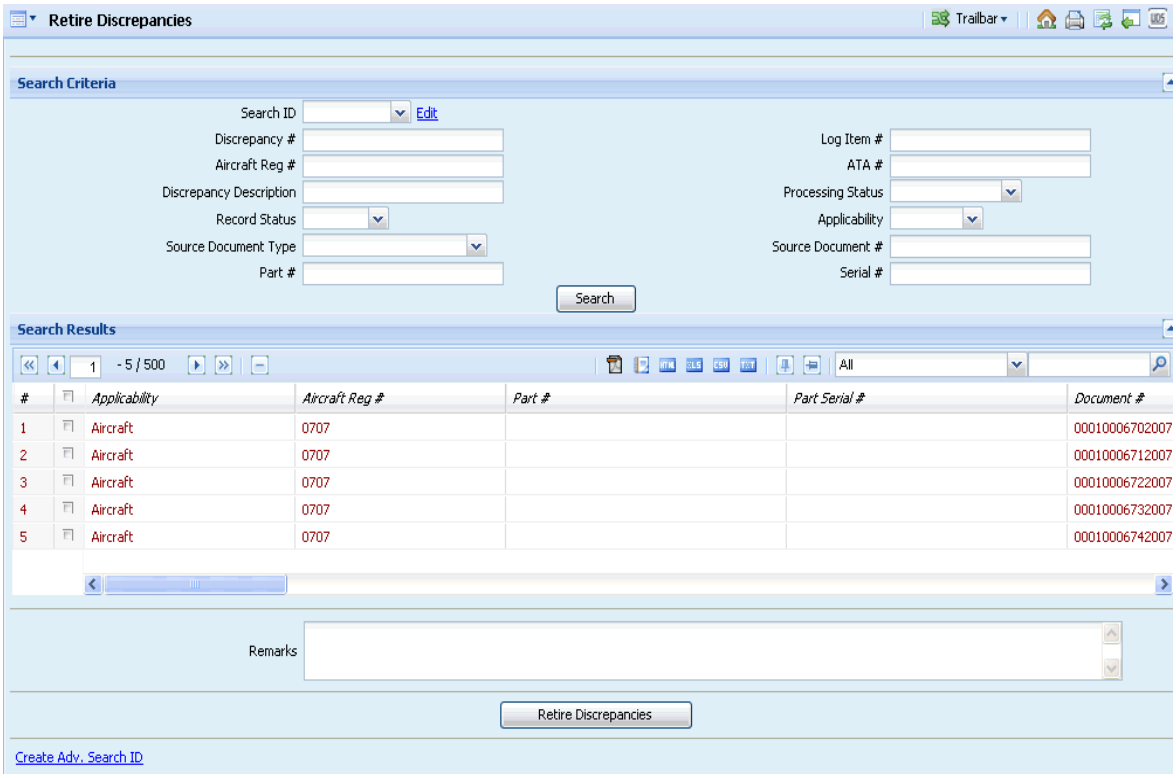


Figure 4.6 Retiring discrepancies

2. Enter the **Search Criteria** to retrieve discrepancies that must be retired. The details are displayed in the **Search Results** multiline.

*Note: The system will retrieve only those discrepancies reported by the login user in the login OU. The system retrieves only those discrepancies if any, associated with the component in the multiline, based on the option selected for the parameter (HHMM or Decimal Format) in the **Aircraft** business component.*

3. Select the discrepancy that must be retired and click the **Retire Discrepancies** pushbutton.

Note: The record status of the terminated discrepancies is updated as "Retired".

If the discrepancy is applicable for "Aircraft", the execution status of the work units in the primary program of the aircraft is updated to "Terminated".

If the discrepancy is applicable for "Component", the execution status of the work units in the component maintenance program is updated to "Terminated".

Chapter 5/ Line Planning and Control

The frontline maintenance performed at the various line stations is an important factor in achieving the desired level of preventive and corrective maintenance on aircraft and its operating components. Line maintenance activities typically involve performance of scheduled on-wing jobs, Scheduled aircraft jobs, LRU removals for scheduled shop visits and resolution of pending discrepancies, including the deferred discrepancies. The tracking of overdue jobs and deferred discrepancies with respect to their compliance limits, assignment of additional work units to be executed to a line station, are facilitated through the line planning and control process. In addition, the process also addresses the maintenance execution planning requirements at a line station.

Line Planning and Control business component enables you to review the discrepancies that are identified during the execution of line maintenance activities on the aircraft. This business component also allows the MOC (Maintenance Operational Clerk)/DOC, to track and resolve the SOS (Ship or Shelf) disposition details.

Review Discrepancy Records

You can review the discrepancies that are identified during the execution of line maintenance activities on the aircraft.

Reviewing Discrepancy Records

This page allows you to review the discrepancies that are identified during the execution of line maintenance activities on the aircraft which requires additional approval for the specific Deferral Types. Additional approval of discrepancies will be carried out in this activity.

1. Select the **Review Discrepancy Records** link under the **Line Planning and Control** business component. The **Review Discrepancy Record** page appears. *See Figure 5.1 .*

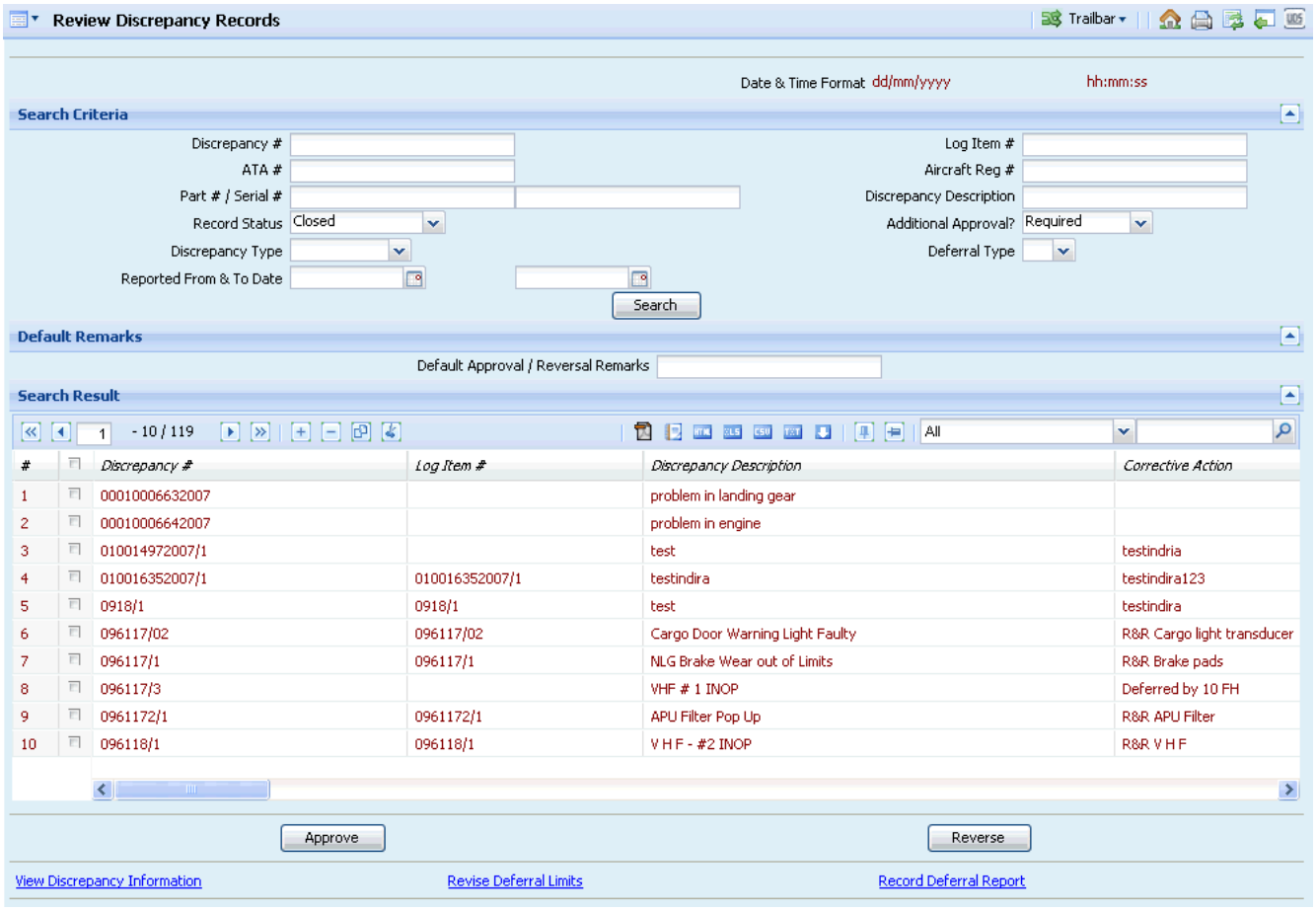


Figure 5.1 Reviewing discrepancy records

2. Enter the number identifying the discrepancy in the **Discrepancy #** field.

3. Enter the code identifying the log Item # which contains the discrepancy details in the **Log Item #** field.
4. Enter the ATA chapter on which discrepancies have been reported in the **ATA#** field.
5. Enter the registration number of the aircraft whose reported discrepancies have to be reviewed in the **Aircraft Reg#** field.
6. Enter the part number of the component /serial number of the part for which the discrepancy has been reported in the **Part# / Serial#** field.
7. Enter the discrepancy description in the **Discrepancy Description** field.
8. Use the **Record Status** drop-down list box to select the record status of the discrepancy.
9. Use the **Additional Approval?** drop-down list box to select the discrepancies based on whether additional approval is required for the discrepancy.
10. Use the **Discrepancy Type** drop-down list box to select the discrepancy type.
11. Use the **Deferral Type** drop-down list box to select the deferral type.
12. Enter the date from which and the date until which the discrepancies were reported in the **Reported From & To Date** field**.**
13. Click the **Search** pushbutton to display the search results.

The system retrieves and displays the details in the multiline based on the search criteria. The system fetches the associated Discrepancies corresponding to the search criteria.

14. Any remarks pertaining to the approval or reversal of the discrepancy in the **Default Approval / Reversal Remarks** field.
15. Click the **Approve** pushbutton, to approve the selected discrepancies.
16. Click the **Reverse** pushbutton, to reverse the selected discrepancies.

Track and Resolve SOS Disposition

This activity is mainly used by MOC (Maintenance Operational Clerk)/DOC. This activity is used to track and resolve the SOS (Ship or Shelf) disposition details.

Tracking and resolving SOS Disposition

In this activity the parts with SOS Disposition set as “Suspected Failure” will be fetched and the SOS due date and time will be calculated.

1. Select the **Track and Resolve SOS Disposition** link under the **Line Planning and Control** business component. The **Track and Resolve SOS Disposition** page appears. *See Figure 5.2.*

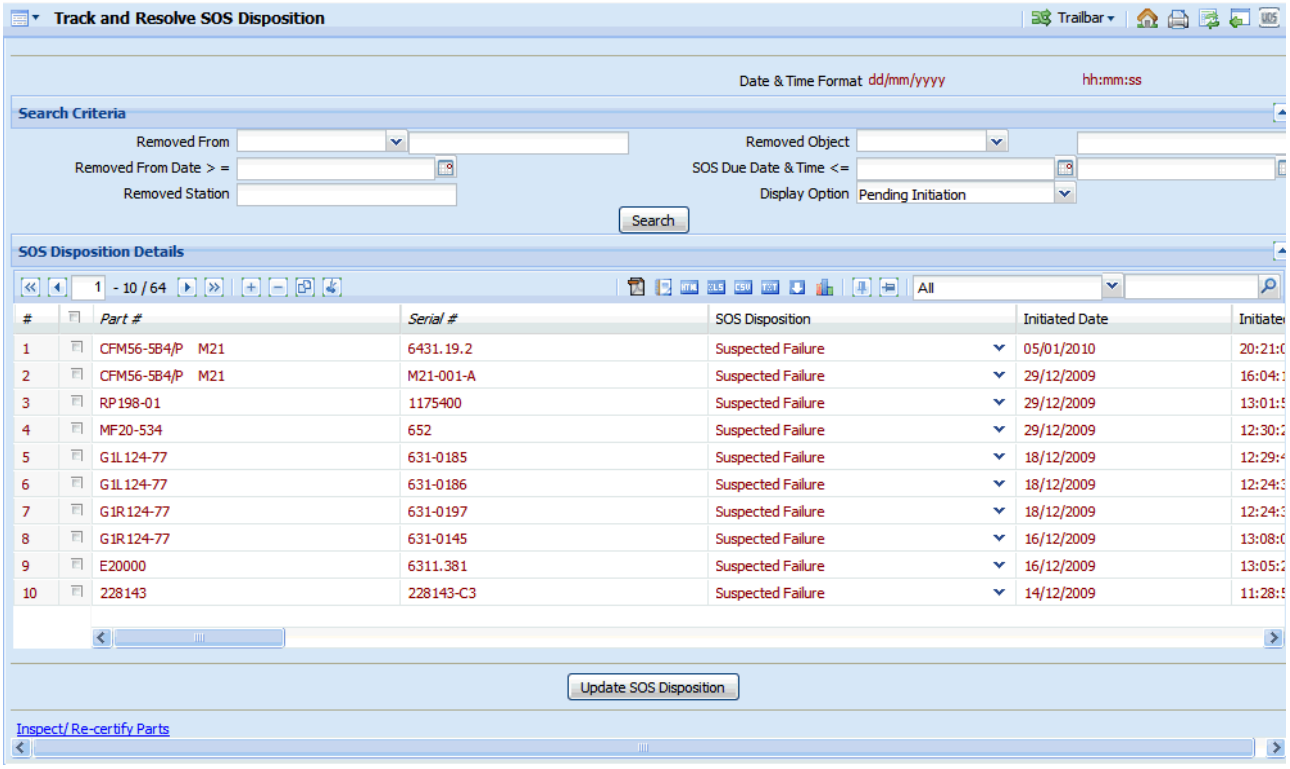


Figure 5.2 Tracking and resolving SOS Disposition

2. Use the **Removed From** drop-down list box to specify the location from where the object is removed. The combo is loaded with values “Aircraft Reg #”, “Part #”, “Part #/Serial #”, “Component #” and Blank.

3. Use the **Removed Object** drop-down list box to specify the object removed. The combo is loaded with values “Part # / Serial #”, “Component #” and Blank.

4. Enter the date on which the component was removed in the **Removed From Date >=** field.

5. Enter the SOS due date and time in the **SOS Due Date & Time <=** field.
6. Enter the station where the part was removed in the **Removed Station** field.
7. Use the **Display Option** drop-down to specify the display option. The combo is loaded with values “Pending Initiation”, “Pending Confirmation” and “Overdue”.
8. Click the **Search** pushbutton to retrieve the details in the multiline.

Note: The system retrieves the SOS Applicability details based on the values entered/selected in one or more than one filter criteria. Wild card search is also allowed. The system fetches the details of all the component replacement #'s which are having 'SOS Disposition' applicable when values are not entered in any of the filter conditions.

9. Use the **SOS Disposition** drop-down list box to specify the SOS Disposition. The combo is loaded with values “Suspected Failure”, “Confirmed Failure”, “No Fault Found” and Blank.
10. Enter the date on which the SOS should be initiated in the **Initiated Date** field.
11. Enter the time at which the SOS should be initiated in the **Initiated Time** field.
12. Enter the reference time zone of the SOS disposition in the **Reference Time Zone** field.
13. Enter the duration of SOS initiation in the **Duration** field.
14. Use the **Time Unit** drop-down list box to select the time unit. The combo is loaded with values “Hours”, “Days” and Blank.
15. Enter the reference details regarding the SOS disposition in the **Reference Details** field.
16. Enter any remarks regarding the SOS disposition in the **Remarks** field.
17. Click the **Update SOS Disposition** button to update the SOS disposition details.

To proceed further,

- Select the **Identify Resolution Procedure** link to identify the resolution procedure that must be executed for the discrepancy or maintenance report.

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