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RAMCO AVIATION SOLUTION
VERSION 5.8

USER GUIDE
DISCREPANCY MANAGEMENT

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 AviationSolution. 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 4 chapters and index. Given below is a brief run-through of what each chapter consists of.

Chapter 1 provides an overview of the **Discrepancy Management** business process and the entire manufacturing process. The sub processes are explained in the remaining chapters.

Chapter 2 focuses on the **Discrepancy Processing** sub process.

Chapter 3 dwells on the **Structural Damage Report** sub process.

Chapter 4 dwells on the **Fault Manual Setup** 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.

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INTRODUCTION

Aviation industry is maintenance intensive and cannot be compromised due to the airworthiness of the aircrafts. Most of the maintenance activities that are to be performed on the aircraft are based on the number of hours for which the aircraft is used 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 action taken accordingly so as to maintain the airworthiness of the aircraft.

Discrepancy Management enables you to process discrepancies that are reported by the pilots and mechanics.

The **Discrepancy Management** business process comprises **Discrepancy Processing** sub process. Discrepancies on an aircraft are reported at various stages, as part of work order reporting or when a Journey Log or an Execution Reference 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.

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 revise the deferral limits set for the discrepancy.

2.1 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. See Figure 1.1.
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.

   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".

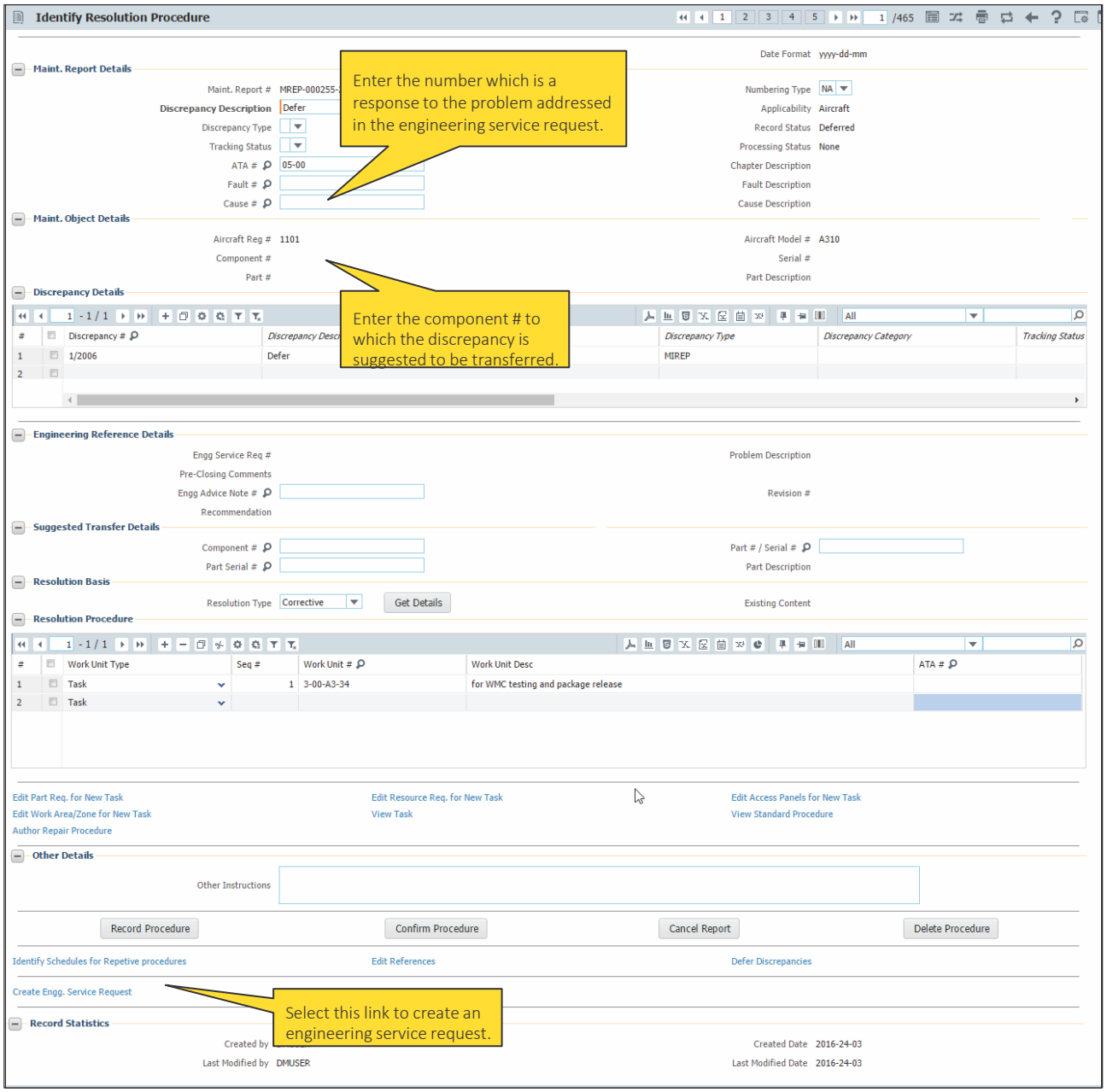

Figure 2.1 Identifying resolution procedure

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.

2.1.1 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 1.2.* 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.

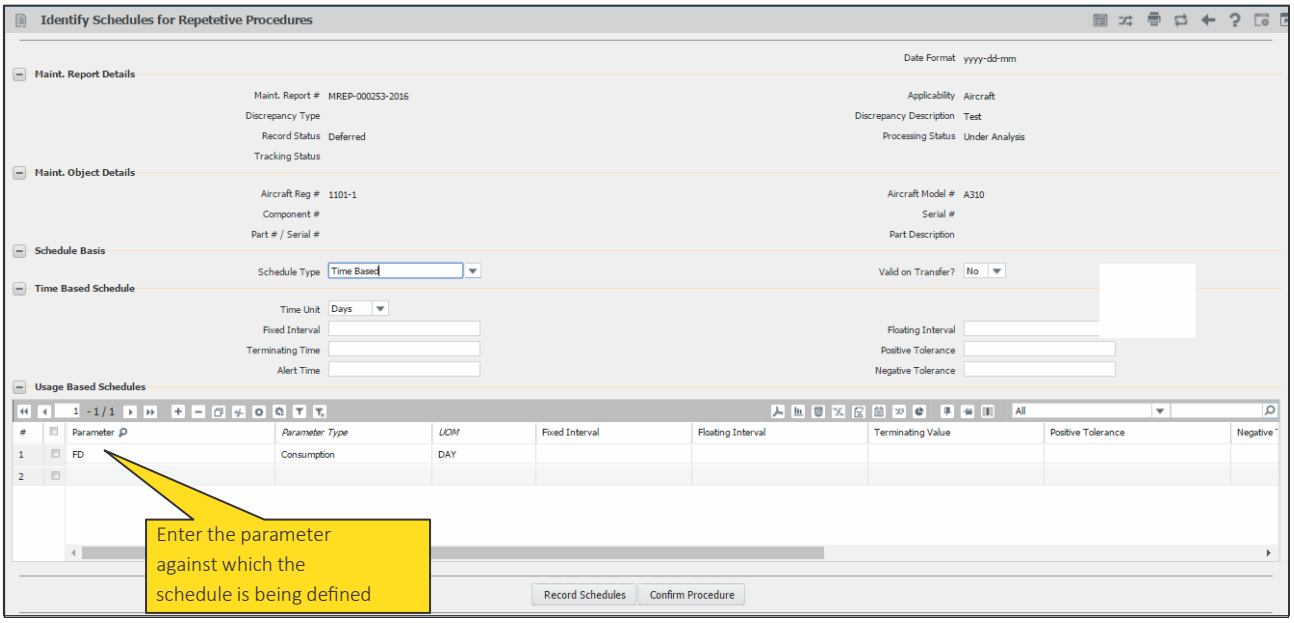

Figure 2.2 Identifying schedules for repetitive procedures

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.

2.1.2 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 1.3.*

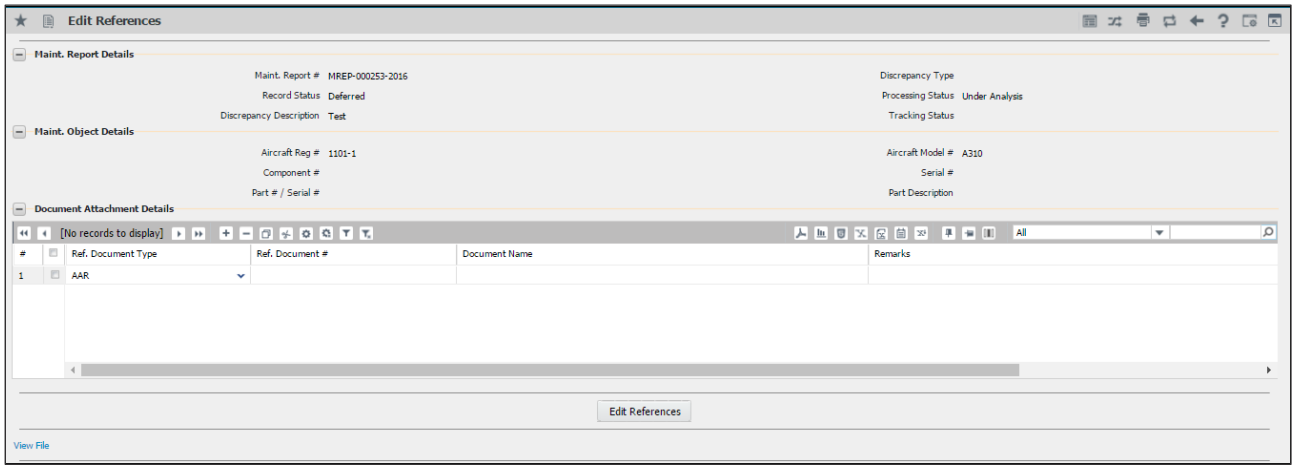

Figure 2.3 Providing document references to resolution procedure

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.

Note: 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.

2.2 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 2.4.*

   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.

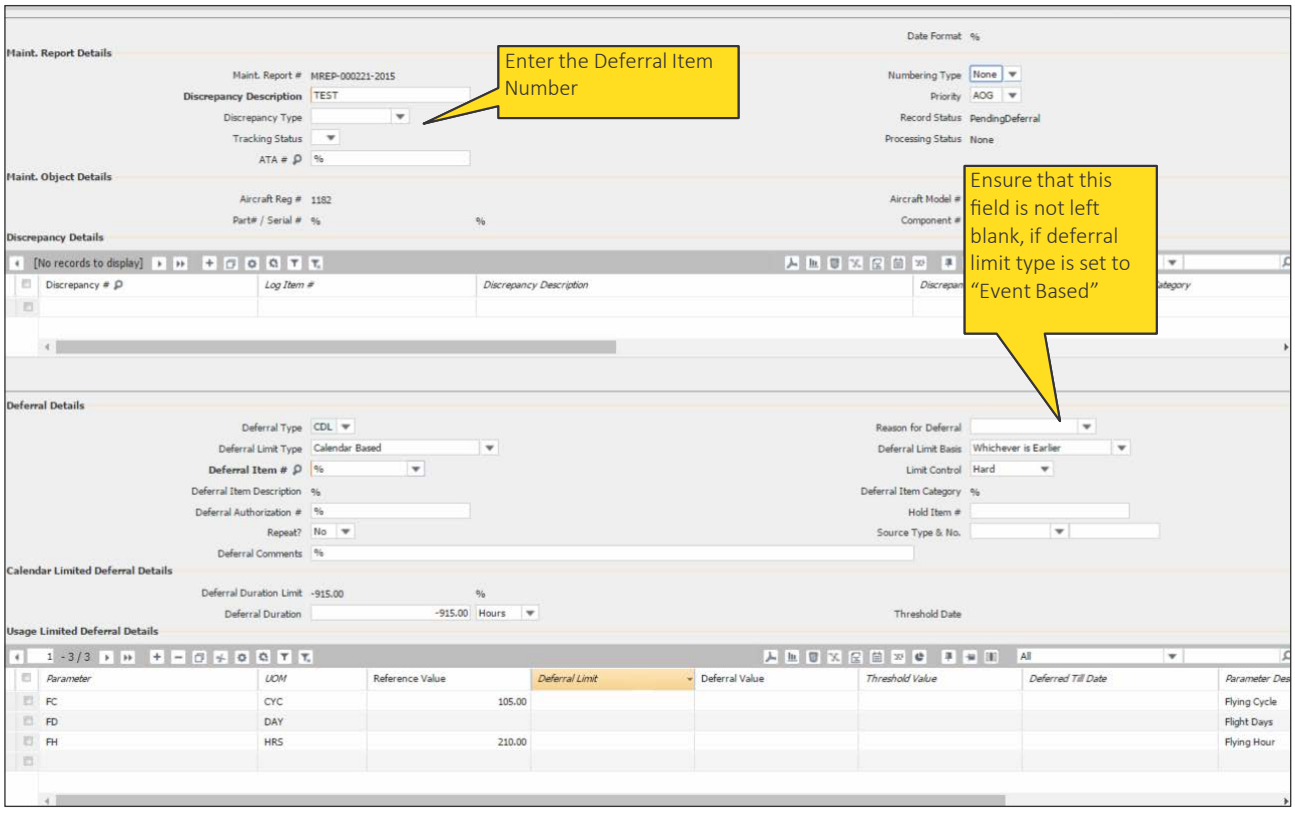

Figure 2.4 Deferring Discrepancies

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 "Cancelled". The discrepancies are unmapped from the report and their status is set to "Pending".

2.3 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 2.5.*
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 Type** 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**.

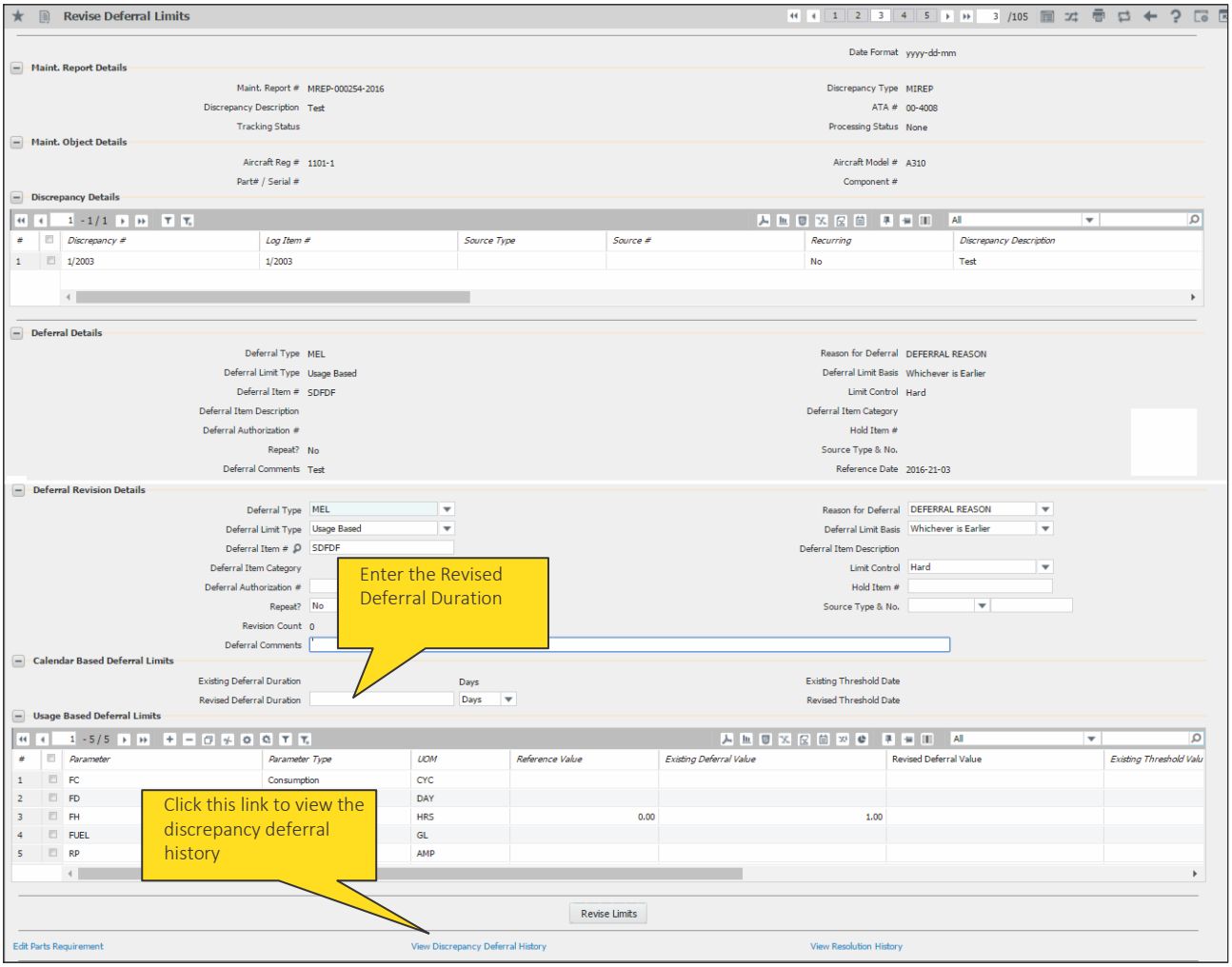

Figure 2.5 Revising deferral limits

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.*

STRUCTURAL DAMAGE REPORT

In the aviation industry, safety is the keyword and is related to the airworthiness of an aircraft. Likewise, a defect or damage in the aircraft has a significant effect on the safety of the flight. As such there are a number of regulations as set by the Federal Aviation Agency that regulates the airlines to ensure the continuous airworthiness of an aircraft. One such regulation is the Mandatory Documentation for Acceptable Means of Compliance (AMC). As part of AMC, it is a mandatory requirement for all aircraft operators to maintain a damage report that details the structural repairs and allowable damage to the aircraft. Such recording of the damages in an aircraft is very significant as it effects offering a secure and safe environment.

However, in the manual method of recording damages involves physically marking damage points with a pen on a printed aircraft image where damage and assessment of such damage details are also noted down.

In order to improve and regulate such complex reporting process, the Structural Damage Report business component is data driven and enables electronic recording of such structural damages, with visual representations of damage reports with charts where damage details are easily accessible and clearly presented.

The various activities of this component are:

Manage Damage Report: This activity enables to record and view useful information regarding the damage against a Discrepancy.

Manage Damage Charts: This activity enables the viewing or marking of points on an aircraft or component chart against the generated Discrepancy.

Maintain Master Charts: This activity enables the attachment of charts at Aircraft Reg.#-Aircraft Model #-Part #-Component levels

Maintain Quick Codes: This activity provides quick codes used for the data capturing information for reporting the damage.

3.1 SETTING UP QUICK CODES

This activity allows you to create user-defined values called quick codes used to categorize transactions in the "Structural Damage Report" business component. You can create the quick codes for these quick code types. For e.g. "Landing Gear" can be defined as quick codes under the quick code type "Damage Location" and so forth.

You can enter a unique identifier for the quick code and provide a description for it. The quick code against a quick code type should be unique for the organizational unit. The system assigns "Active" or "Inactive" status depending on the status selection as soon as the quick code is created and sets the created date and time to the server date and time.

You can also make modifications to the description of a quick code. You have the option to make a quick code inactive by assigning that status to it.

1. Select the **Maintain Quick Codes** activity under the **Structural Damage Report** business component. The **Maintain Quick Codes** screen appears. *See Figure 3.1*.

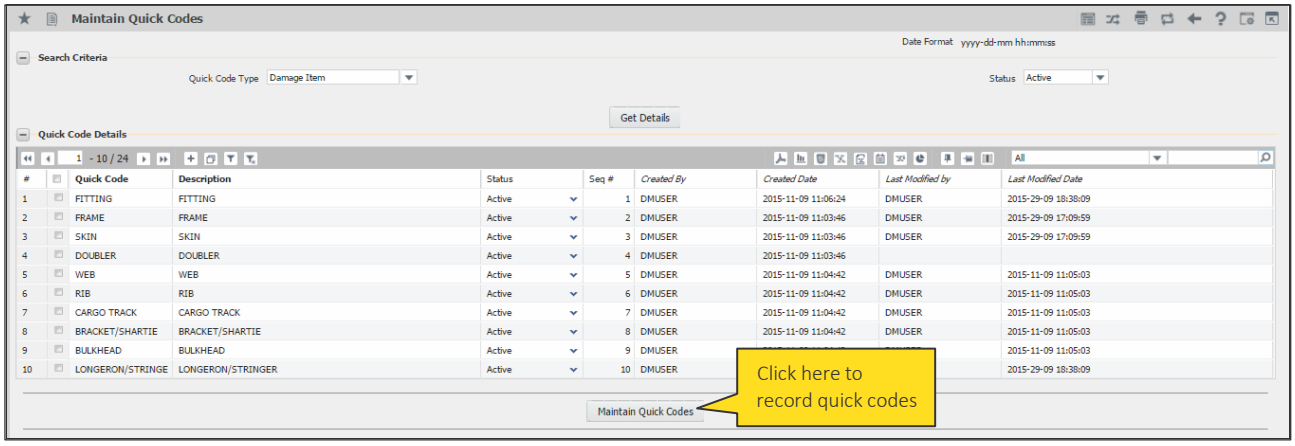

Figure 3.1 Maintain quick codes

2. In the **Search Criteria,** use the drop-down list box to specify the quick code type under which you want to create / modify / delete a quick code and specify the Status of the quick code whether active or inactive.
3. Click the **Get Details** pushbutton to retrieve the search details in the multiline.
4. In the **Quick Code Details** multiline, select the status of the quick code and specify the sequence number of the quick code which you would like to be displayed in the report in the **Seq #** column.
5. Check the box in the "Select" column of the multiline to mark the quick code.
6. Select the **Maintain Quick Codes** pushbutton to record the quick codes.

3.2 MAINTAINING MASTER CHARTS

This activity enables you to define chart attachments for Aircraft Model #, Aircraft Reg. #, Part # or Comp #. Enables you to mark / view point(s) on an aircraft/component chart against a Structural Damage Report # that was generated in the "Manage Damage Report" activity of the current business component.

Note: A chart must have been uploaded in the damage report.

1. Select the **Maintain Master Charts** activity under the **Structural Damage Report** business component. The **Maintain Master Charts** screen appears. *See Figure 3.2*

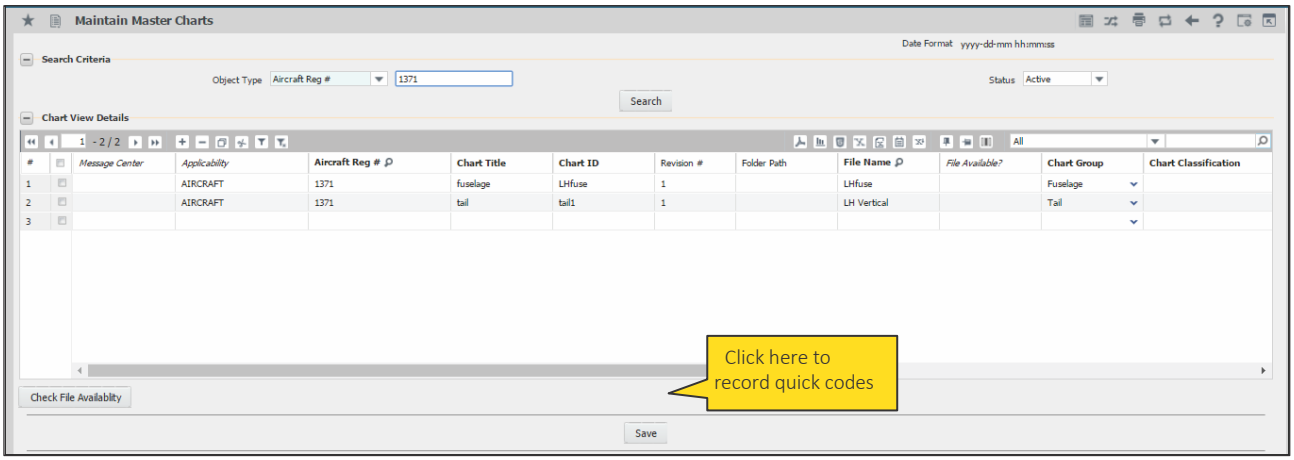

Figure 3.2 Maintaining master charts

2. In the **Search Criteria,** use the drop-down list box to specify the **Object Type** and **Status** of the chart based on which you wish to retrieve records in the multiline and click the **Search** pushbutton.
3. In the **Chart View Details** multiline, enter the **Aircraft Model #** against which you wish to record chart details and provide other information like **Chart Title**, **Chart ID**, **File Name**, **Chart Group** and **Chart Classification**.
4. Click the **Check File Availability** pushbutton to determine if the selected record is available. The system displays **Yes** or **No** in the File Available? Column in the multiline.
5. Click the **Save** pushbutton to save the details.

3.3 MANAGING DAMAGE CHARTS

This activity enables you to view and mark point (s) on an aircraft/component chart against a Structural Damage Report # that is generated in the "Manage Damage Report" activity.

The technical records personal, while marking the damage in the damage chart has the provision to either create new damage report or modify an existing damage report.

1. Select the **Manage Damage Charts** activity under the **Structural Damage Report** business component. The **Manage Damage Charts** page appears. *See Figure 3.3.*

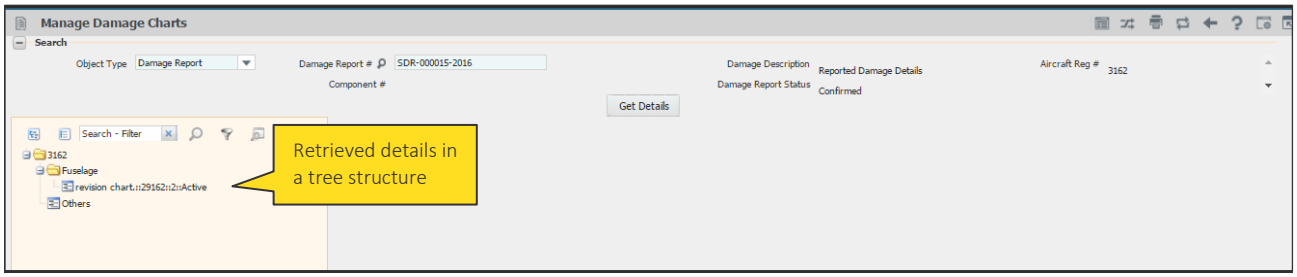

Figure 3.3 Managing damage charts

2. In the **Search** group box**,** use the **Object Type** to select the object based on which you wish to view /mark points in the chart.

3.3.1 MANAGE DAMAGE CHARTS FOR DAMAGE REPORTS

1. Select the option **Damage Report** against which charts have been uploaded, from the **Object Type** drop down list box. *See Figure 3.4.*

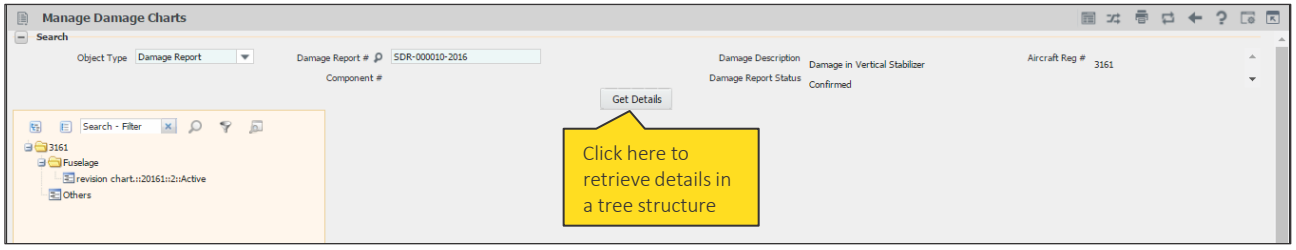

Figure 3.4 Managing damage charts

2. Provide other details like associated with the discrepancy reported like **Damage Report #, Aircraft Reg. #** and **Component #**.
3. Click the **Get Details** pushbutton to retrieve the details in a tree structure.

3.3.2 MANAGE DAMAGE CHARTS FOR AIRCRAFTS

1. Select the option Aircraft against which charts have been uploaded, from the **Object Type** drop down list box. *See Figure 3.5*.

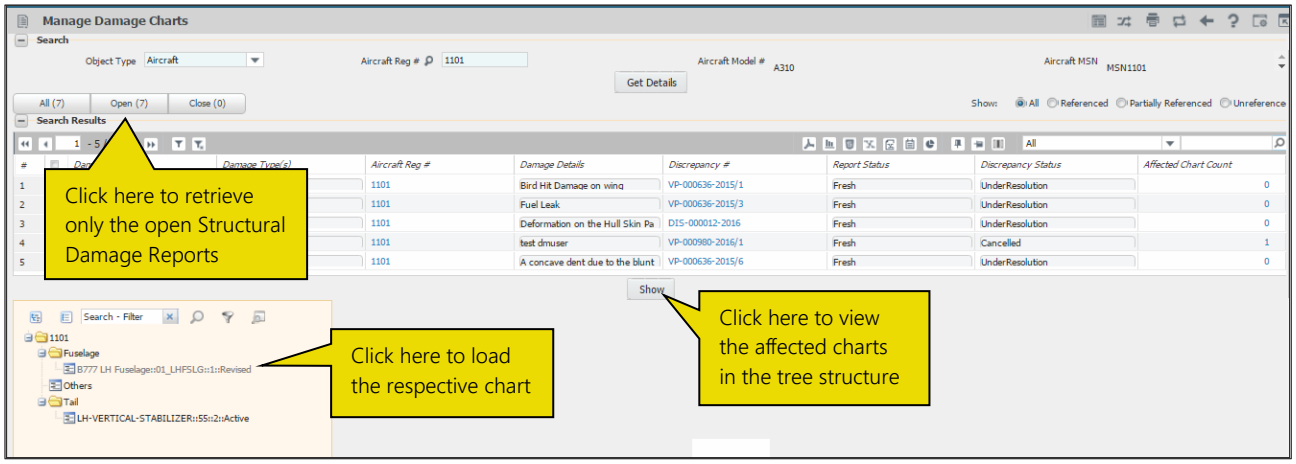

Figure 3.5 Managing damage charts

2. Enter the Aircraft Reg. #, Aircraft Model # and Aircraft MSN.
3. Select the radio buttons from the **Show** menu as per your preference to retrieve the records in the multiline as follows:
    - All – To retrieve all records based on the search criteria.
    - Referenced - to retrieve the Damage Reports which has charts referenced to it.
    - Partially References - to retrieve the Damage Reports that charts only partially referenced to it.
    - Unreferenced - to retrieve the Damage Reports that has no charts referenced to it.
4. Click the **Get Details** pushbutton to retrieve the details in a tree structure. The system retrieves the damage details in the **Search Results** multiline.
5. Click the **Show** pushbutton to view the affected charts in the tree structure.
6. Click on the node in the tree structure on the left side to load the respective chart.

3.3.3 MANAGE DAMAGE CHARTS FOR COMPONENTS

1. Select the option **Component** against which charts have been uploaded, from the **Object Type** drop down list box. *See Figure 3.6*.

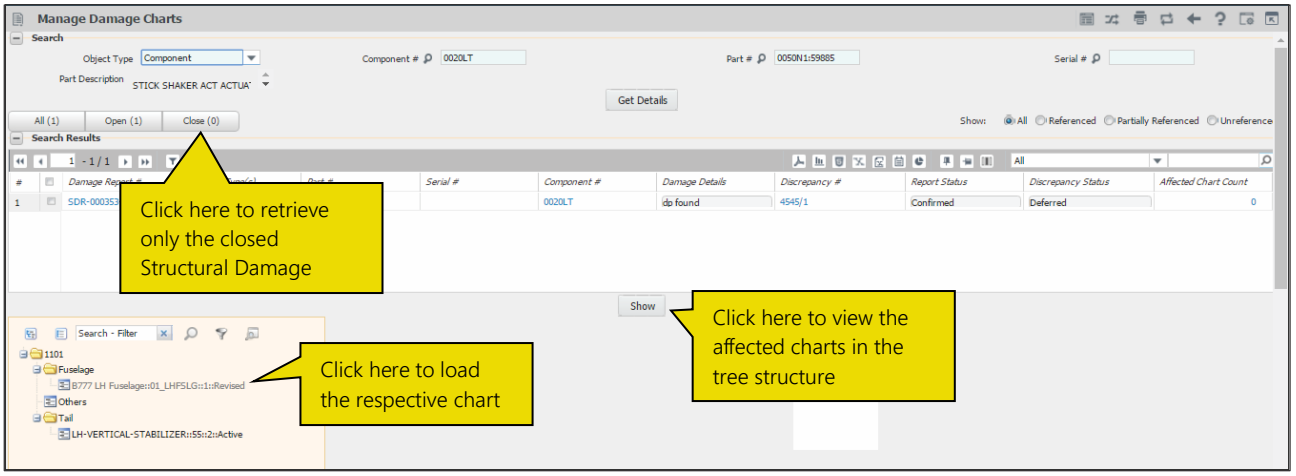

Figure 3.6 Identifying resolution procedure

2. Provide the Component #, Part #, Serial # and Part Description.
3. Select the radio buttons from the **Show** menu as per your preference to retrieve the records in the multiline as follows:
    - All – To retrieve all records based on the search criteria.

- Referenced- to retrieve the Damage Reports which has charts referenced to it.
- Partially References- to retrieve the Damage Reports that charts only partially referenced to it.
- Unreferenced- to retrieve the Damage Reports that has no charts referenced to it.

4. Click the **Get Details** pushbutton to retrieve the details in a tree structure. The system retrieves the damage details in the **Search Results** multiline.
5. Click the **Show** pushbutton to view the affected charts in the tree structure.
6. Click on the node in the tree structure on the left side to load the respective chart.

3.3.4 MODIFY EXISTING DAMAGE REPORT DETAILS

1. Select the chart from the tree structure on which damage point has to be marked. *See Figure 3.7*.

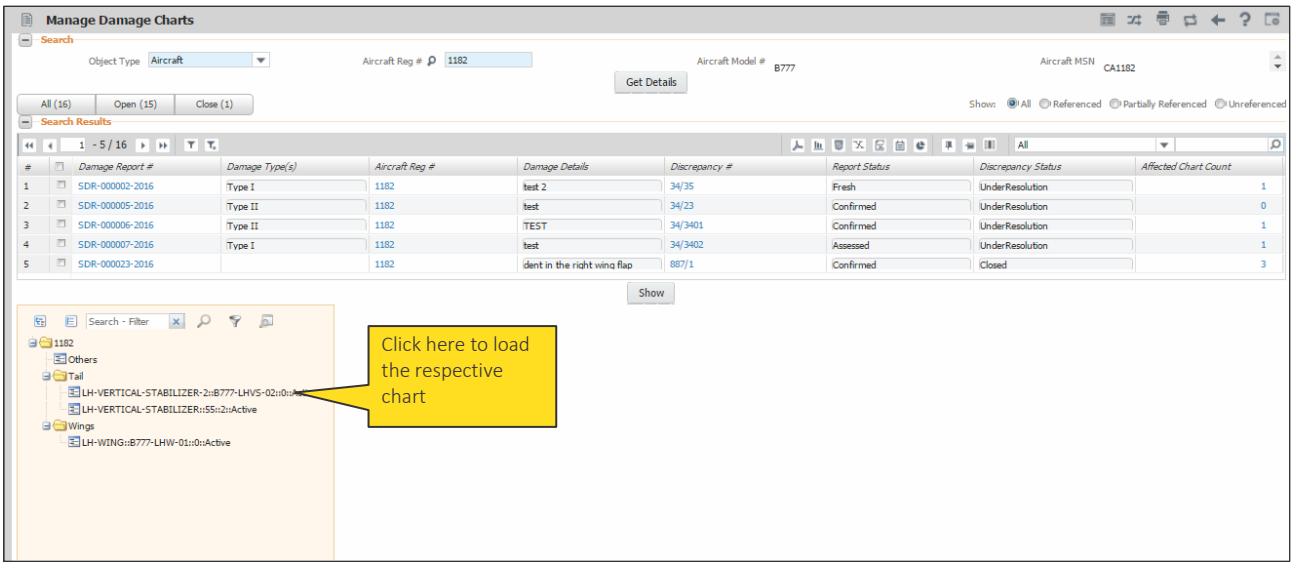

Figure 3.7 Selection of affected chart from the tree structure

The "Others" folder in the tree structure indicates unaffected charts

The chart is displayed on the right. *See Figure 3.8.*

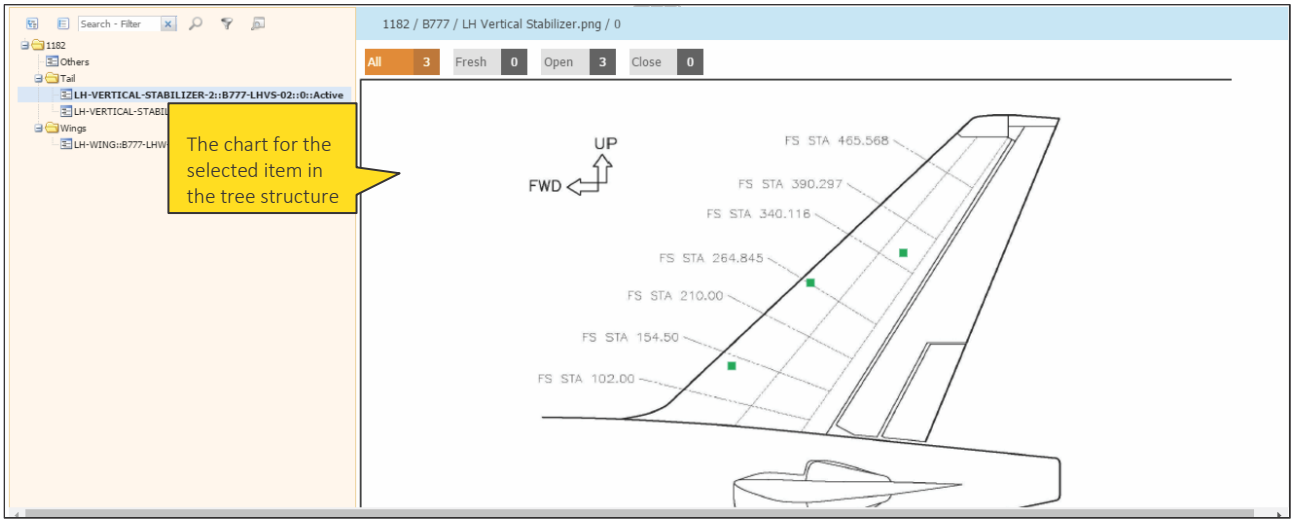

Figure 3.8 View chart

2. Mouse over the damage point marking in the chart to view the damage report number. *See Figure 3.9.*

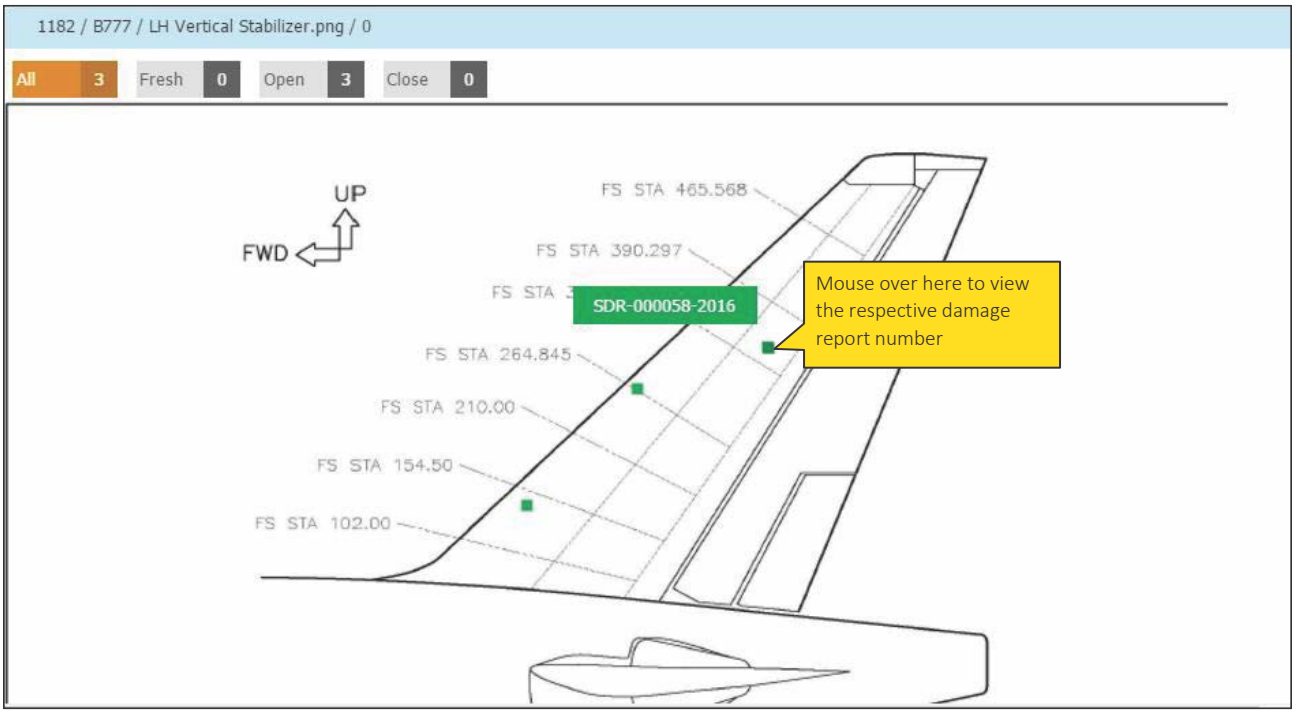

Figure 3.9 Mouse over

3. Click on the **damage report number**. The Damage Report # popup appears. *See Figure 3.10.*

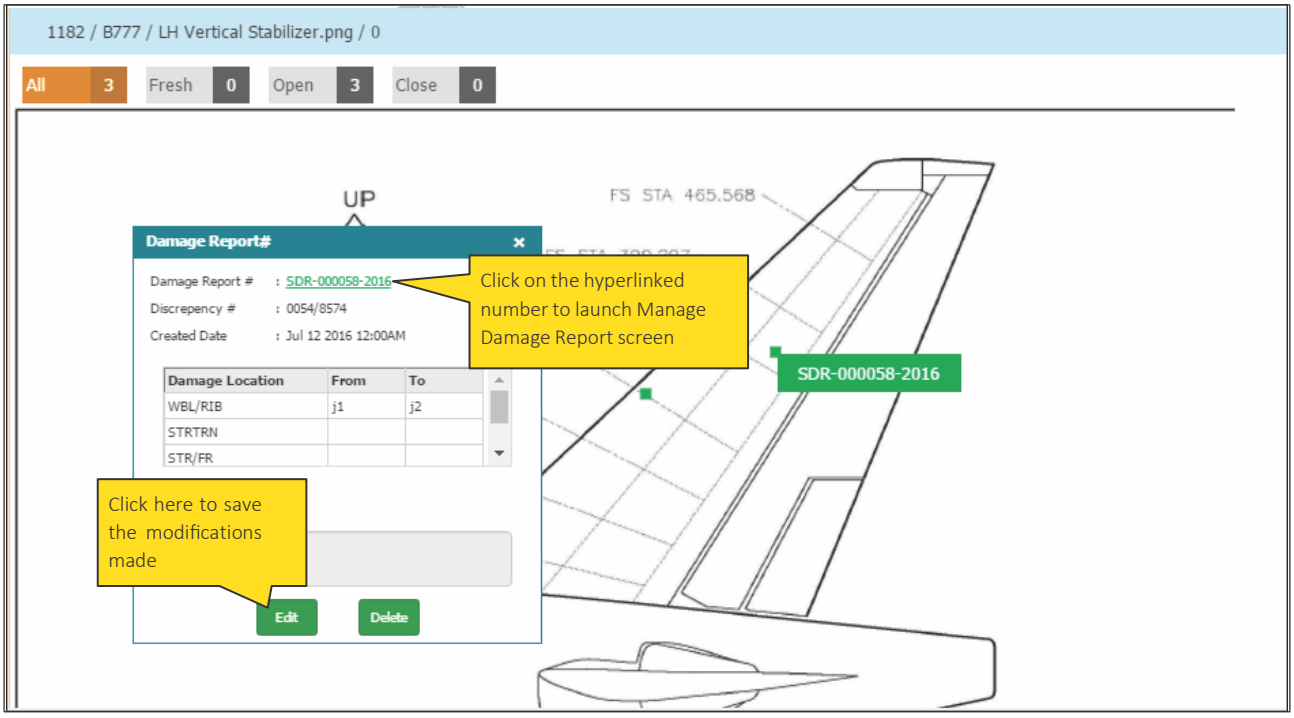

Figure 3.10 Modify damage report details

4. Modify the required details and click **Edit** pushbutton.

Setting options to allow editing of the damage report

5. Go to the **Set Sales Process Parameters** page in the **Define Process Entities** of the **Common Master** business component.

6. Set the parameter 'Allow modification of Damage/Assessment Details of an Assessed Damage" for the Entity Damage Inspection Report as "Yes".

3.3.5 MARK A DAMAGE AND CREATE NEW DAMAGE REPORT

Note: You can mark damage points only in charts that are in "Active" status.

1. Double click on the point where you want to mark the damage, anywhere on the chart.
2. The **Create a New Damage Report** popup appears. *See Figure 3.11.*
3. Enter details in the popup and click **Save**. The newly marked point is indicated in the chart in blue.

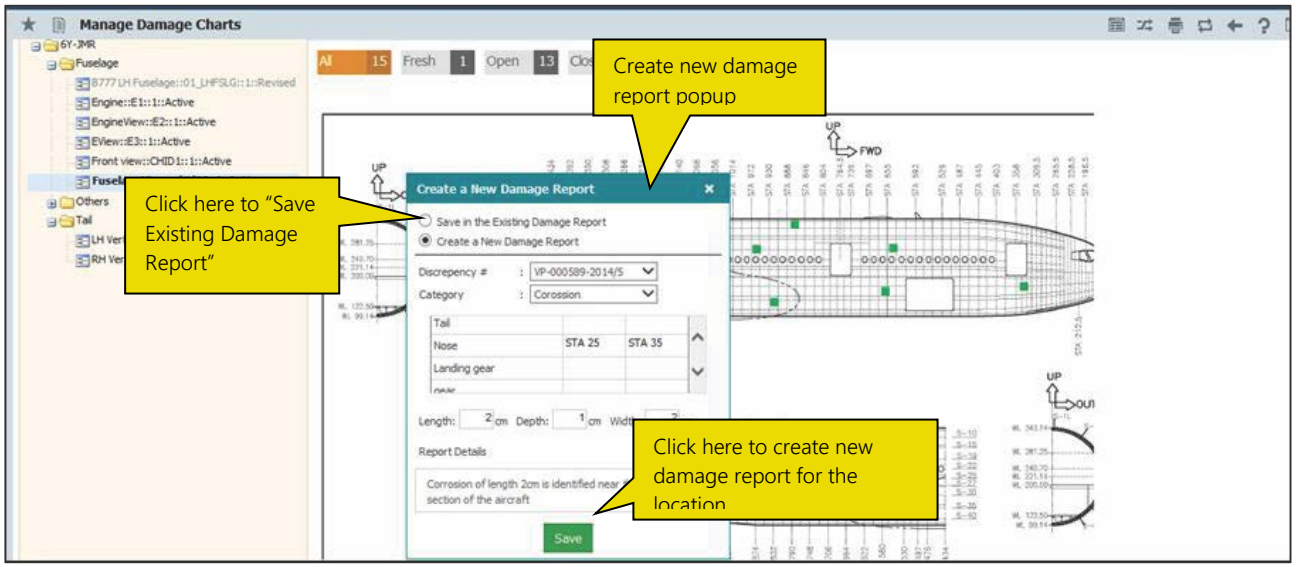

Figure 3.11 Mark a damage and create new damage report

The damage points in the chart are represented to indicate different statuses as follows:

	Indicates damage points that are in open status.
	Indicates damage points newly created in the same
	Indicates damage point in closed status.

3.4 MANAGING DAMAGE REPORTS

This activity enables you to view all the required information associated with a damage given against a Structural Damage Report #. You can assess the damage and provide references and deferral limits. You also have the provision to define affected charts, attach photos and provide repair details

1. Select the **Manage Damage Reports** activity under the **Structural Damage Report** business component. The **Manage Damage Report** page appears. *See Figure 3.12.*

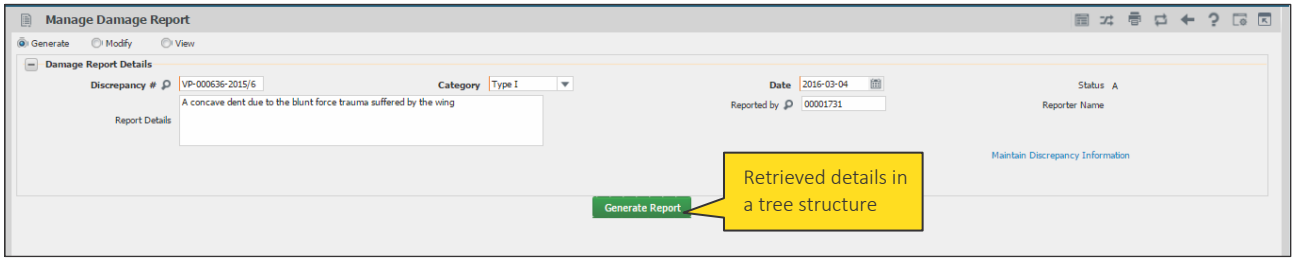

Figure 3.12 Mark a damage and create new damage report

3.4.1 GENERATING A DAMAGE REPORT

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

1. Select the **Generate** radio button. *See Figure 3.13.*

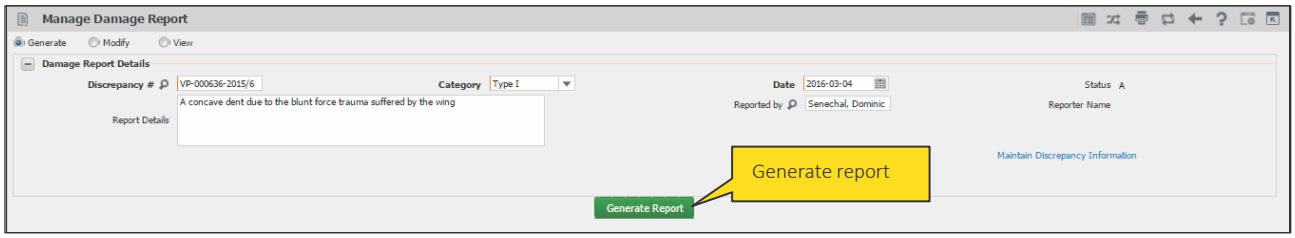

Figure 3.13 Mark a damage and create new damage report

2. Provide the **Discrepancy #**, the **Category** to which the discrepancy belongs and other details.
3. Click the **Generate Report** pushbutton to generate the discrepancy report.

3.4.2 MODIFYING OR VIEWING A DAMAGE REPORT

1. Select **Manage Damage Report** activity in the **Structural Damage Report** business component. The Manage Damage **Report** screen appears**.** *See Figure 3.14.*

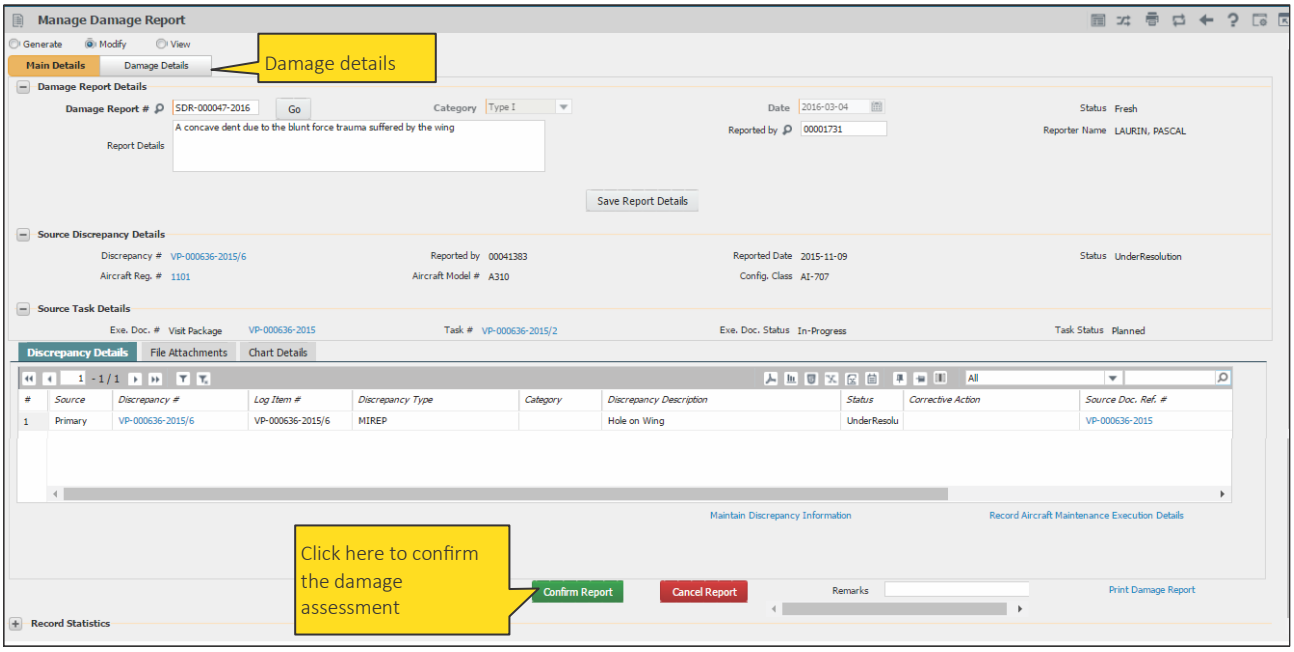

Figure 3.14 Mark a damage and create new damage report

2. Select **Main Details** tab page to record/view the main details of the damage report
3. Select the **Damage Details** tab page to record/view details of the damage.
4. Select the **Assessment Details** tab page to record/view the details of fixing the damage.

You can proceed to do the following:

- Select the **Maintain Discrepancy Information** link to edit the deferment details already specified for a work unit.
- Select the **Record Aircraft Maintenance Execution Details** link to create and update the aircraft maintenance execution (AME) details for an aircraft.

5. Click the **Confirm Report** pushbutton to confirm the assessment of the damage.
6. Click the **Cancel Report** pushbutton to cancel the report.

You can proceed to do the following:

- Select the **Print Damage Report** link to print the damage report.

Record or view main details of the damage report

This section enables you to record and view all the main details, file attachment and chart details associated with the discrepancy report.

7. Select the **Modify** radio button in the **Manage Damage Report** activity.
8. In the **Damage Report Details** group box enter the damage report number for which you wish to modify/view details and the other details.
9. Click the **Save Report Details** pushbutton.
10. Select **Discrepancy Details** tab to view details of the parent as well as the child discrepancies if any.
11. Select **File Attachments** tab to attach files.
12. Select **Chart Details** tab to view details of the charts to be referred for the reported damage.

You can proceed to do the following:

- Select the **Maintain Discrepancy Information** link to edit the deferment details already specified for a work unit.

- Select the **Record Aircraft Maintenance Execution Details** link to create and update the aircraft maintenance execution (AME) details for an aircraft.

Record or view damage details of the damage

This tab page enables you to record all the details pertaining to the reported damage like the type of the damage, its location and so on.

13. Select the **Item** tab to provide information on the damaged item and click the **Save Damage Item** pushbutton to save the details entered against the damage report.
14. Select the **Type** tab to provide details on the type of the damage and click the **Save Damage Type** pushbutton to save the details entered against the damage report.
15. Select the **Location** tab to provide details of the location of the damage in the aircraft and click the **Save Damage Location** pushbutton to save the details entered against the damage report.
16. Select the Cause tab to provide details of the cause of the damage and click the **Save Damage Cause** pushbutton to save the details entered against the damage report.

Record or view main details of fixing the damage

This section enables you to assess details of the Damage Report after confirmation of the discrepancy report.

17. Select the **Resolution** tab to enter details of the action taken so far for the damage reported.
18. Select the **Reference** tab to provide details of all the reference documents associated with the damage.
19. Select the **Deferral** tab to provide information on the deferral of the discrepancy.

FAULT MANUAL SETUP

Continuous analysis of operational performance of aircraft is crucial for safe airline operations. Onboard systems like ACARS are capable of identifying abnormal flight conditions and automatically sending real-time messages to an airline. This makes it possible for airline maintenance personnel to receive real-time data associated with maintenance faults on the aircraft.

Onboard computers transmit standard predefined fault codes. Maintenance personnel use the fault isolation manual for trouble shooting the same. The **Fault Manual Setup** sub process facilitates users in capturing all predefined fault codes along with detailed troubleshooting instructions.

The **Fault Isolation Manual** business component deals with codifying faults encountered during an airline operation. Any problem, which causes an aircraft to perform below its rated efficiency, is termed as “Fault”. You need to rectify the fault in the shortest time possible to avoid long aircraft downtime. To rectify faults effectively and within the turn around time, you need to identify the faults, its possible causes and the correct remedial actions to eliminate the fault. Codification of faults helps in faster trouble shooting, organized fault analysis and reporting.

The module provides a thorough guidance as to how a symptom can be traced to faulty equipment. The suggestive action to be carried out is identified in the system in the form of Work Unit(s). The system provides an option to create new fault codes.

4.1 CODIFYING FAULTS

In this activity, you can create new fault codes. You can also create cause codes and identify the work units that have to be associated with the fault code.

4.1.1 CREATING A FAULT CODE

You can create a new fault code, associate causes codes and also specify the models for which the fault code is applicable.

1. Select **Create Fault Code** under the **Fault Isolation Manual** business component.
2. The **Select ATA Chapter** page appears. Enter an ATA chapter number for which the fault code must be created. Select the **Create Fault Code** link provided alongside. The **Create Fault Code** page appears. *See Figure 4.1.*
3. Enter the **Fault #**, **Fault Description** and **Key Word** by which the fault code is uniquely identified.
4. Select the category to which the fault code belongs, in the **Fault Category** drop-down list box. Fault could be of the category “Cabin” or “Observed”.
5. Click the **Create Fault Codes** pushbutton to create the fault code(s). The system creates the fault code in the “Fresh” status.

Note: The fault code created is used in identifying faults in reporting discrepancies in the journey log and technical log and in creating a maintenance report.

*If a fault identified is specific to an aircraft model, the model can be associated with the fault code. To do this, select the **Edit Model Effectivity** link.*

*A cause code can be associated for a fault code. A cause code can be newly created or an existing cause code can be associated. To do so, select the **Edit Cause Code** link.*

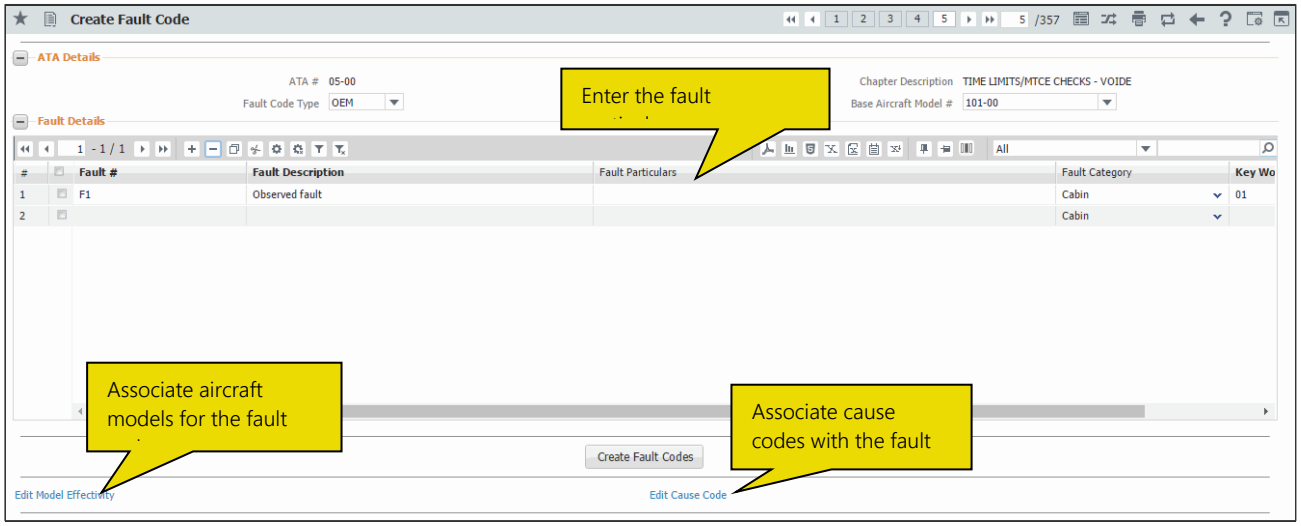

Figure 4.1 Creating a fault code

You can proceed to do the following:

- Select the “Edit Model Effectivity” link, to associate aircraft models to fault code.
- Select the “Edit Cause Code” link, to associate cause codes to fault code.

Associating aircraft models to fault code

You can identify the aircraft models for which the fault code is applicable.

1. Select the **Edit Model Effectivity** link in the **Create Fault Code** page. The **Edit Model Effectivity** page appears. *See Figure 4.2.*

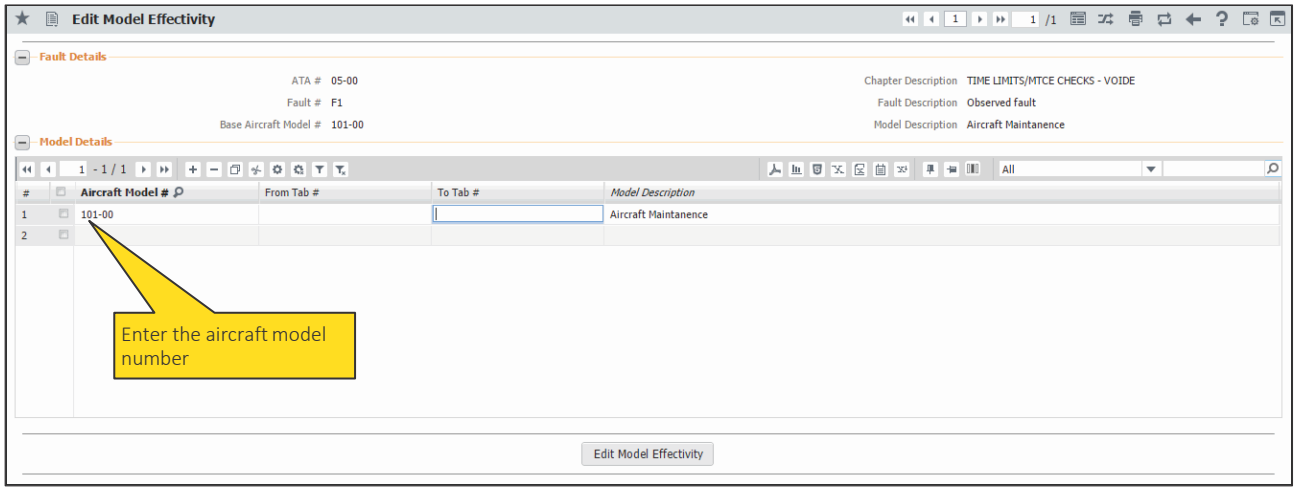

Figure 4.2 Associating models to the fault code

2. The details of the fault code selected in the **Create Fault Code** page appear in the **Fault Details** group box.
3. Enter the **Aircraft Model #**. Enter the starting tab number in the range of tab numbers for which the selected fault code is applicable, in the **From Tab #** field. Enter the ending tab number in **To Tab #** field.
4. Click the **Edit Model Effectivity** pushbutton to associate the models to the selected fault code.

4.2 IDENTIFYING CAUSE FACTORS

4.2.1 ASSOCIATING CAUSE CODES TO FAULT CODE

You can associate cause codes against a fault code.

1. Select the **Edit Cause Code** link in the **Create Fault Code** page. The **Edit Cause Code** page appears. *See Figure 4.3.*

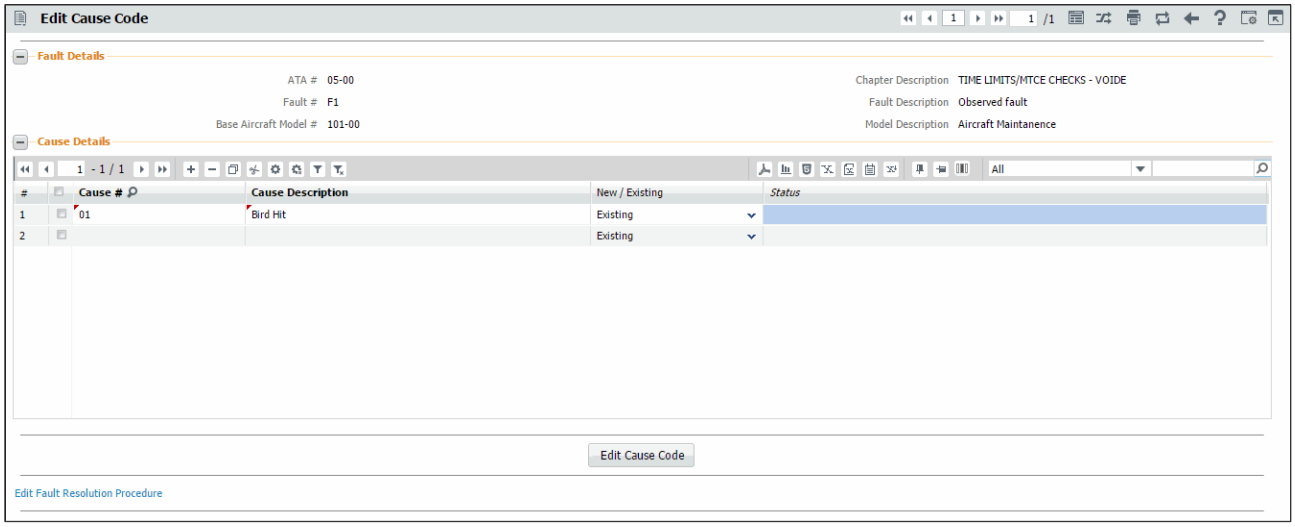

Figure 4.3 Associating cause codes to a fault code

2. The details of the fault code selected in the **Create Fault Code** page appear in the **Fault Details** group box.
3. Enter the **Cause #**, a unique number identifying the cause. Enter the description of the cause in the **Cause Description** field.
4. Use the **New/Existing** drop-down list box to indicate whether the specified cause code is new or an existing cause code.
5. Click the **Edit Cause Code** pushbutton to associate the cause codes to the selected fault code.

You can proceed to do the following:

- Select the "Edit Fault Resolution Procedure" link, to edit the fault resolution procedure for the cause code.

Associating models to cause code

You can identify the aircraft models for which the cause code is applicable.

1. Select **Edit Cause Code** under the **Fault Isolation Manual** business component. The **Edit Cause Code** page appears.

   *Note: This page is used to modify the details of the cause code created using the **Create Fault Code** activity.*

2. Enter the **Search Criteria** to retrieve the cause code for which model effectivity must be specified.
3. Select the cause code in the multiline.
4. Select the **Edit Model Effectivity** link at the bottom of the page. The **Edit Model Effectivity** page appears. *See Figure 4.4. .*

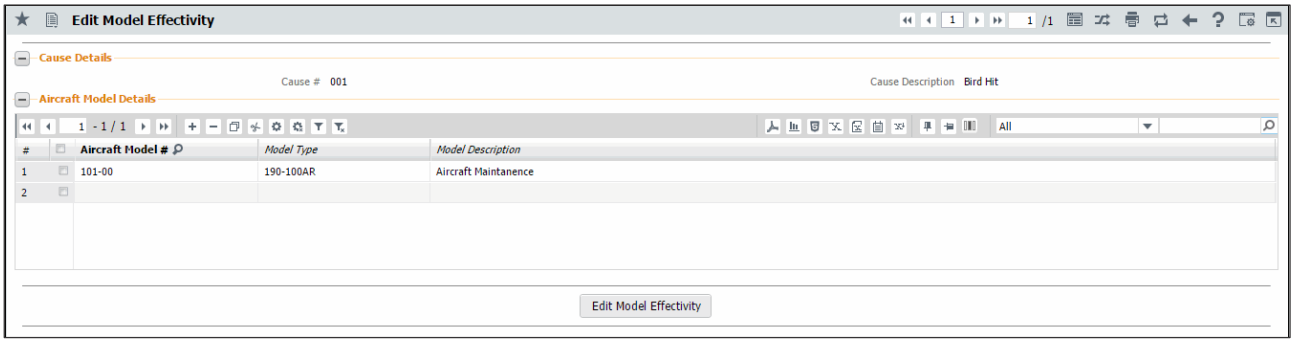

Figure 4.4 Associating models to cause code

5. The details of the cause code selected in the **Edit Cause Code** page are displayed in **Cause Details** group box.
6. In the **Aircraft Model Details** multiline, select the **Aircraft Model #** for which the cause code is applicable.
7. Click the **Edit Model Effectivity** pushbutton to associate the models to the cause code.

*Note: The **Model Type** and **Model Description** of the selected aircraft are displayed in the multiline.*

4.3 PRESCRIBING STANDARD RECTIFICATION PROCEDURES

You can associate a resolution procedure to a fault code and cause code.

4.3.1 ASSOCIATING RESOLUTION PROCEDURE TO A FAULT CODE

Work units that rectify a discrepancy can be associated with the fault code and cause code.

1. Select **Edit Fault Code** activity under **Fault Isolation Manual** business component. The **Select Fault Code** page appears.
2. Enter the **Search Criteria** to retrieve the fault code for which resolution procedure must be identified. Based on the search criteria, details are displayed in the **Search Results** multiline.
3. In the multiline, click the hyperlinked fault number for which resolution procedure must be associated. The **Edit Fault Code** page appears.
4. Select the **Edit Fault Resolution Procedure** link in the **Edit Fault Code** page. The **Edit Fault Resolution Procedure** page appears. *See Figure 4.5.*

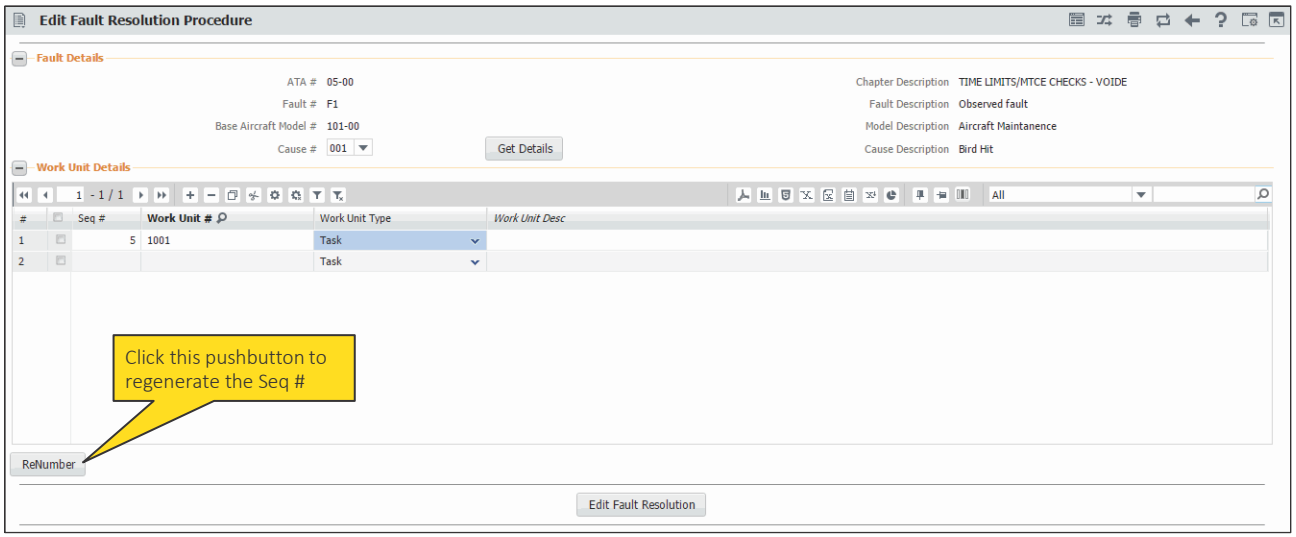

Figure 4.5 Associating resolution procedure to a fault code

5. The details of the fault code selected in the **Create Fault Code page** appear in the **Fault Details** group box.
6. Use the **Cause #** drop-down list box to select a cause code and click the **Get Details** pushbutton.
7. The system retrieves the details of the work units for the Fault # and Cause # (if any already defined) in the **Work Unit Details** multiline.
8. In the **Work Unit #** field, select the work unit that must be associated to the fault code and cause code.
9. Use the **Work Unit Type** drop-down list box to specify the work unit type, which can be "Task" or "Standard Procedure".
10. Click the **Edit Fault Resolution** pushbutton to update the resolution procedure details against the selected Fault # and Cause #.

4.4 REGULARIZING DISCREPANCY RECORDS

Certain faults that are not covered in the Fault Isolation Manual can be codified so that it serves as a knowledge base. Such faults are known as “Airline fault codes”. You can induct such faults from the Maintenance Report into the fault isolation manual.

Regularizing maintenance report for fault codification

You can create airline fault codes and associate them to the standard fault codes and also specify the model effectivity details.

1. Select **Regularize Maintenance Reports for Fault Codification** under the **Fault Isolation Manual** business component. The **Select MR** page appears.
2. Enter the **Maint Report #** in the **Direct Entry** group box and select the **Regularize Maint. Report** link to go to the **Regularize Maint. Report** page. . Or, specify the search criteria and click the **Search** pushbutton. The system displays the details of the maintenance report in the **Search Results** multiline. Click the hyperlinked **Maint Report #** in the multiline. The **Regularize Maint. Report** page appears. *See Figure 4.6.*
3. The maintenance report details are displayed in the **Maint Report Details** group box.
4. In the **Fault Details** group box, enter the **Fault #, Fault Description** and the unique keyword to identify the fault code in the **Key Word** field.
5. Specify the **Base Aircraft Model #** for which the fault code must be created.
6. Use the **Fault Category** drop-down list box to classify the fault. The fault category can be “Cabin” or “Observed”.
7. Enter the code identifying the cause in the **Cause #** field.
8. Use the **New/Existing** drop-down list box to indicate whether the specified cause code is new or an existing cause code.
9. In the **Aircraft Details** multiline, specify the model effectivity for the fault code and cause code. Select the **Aircraft Model #** for which the fault and cause code is applicable.

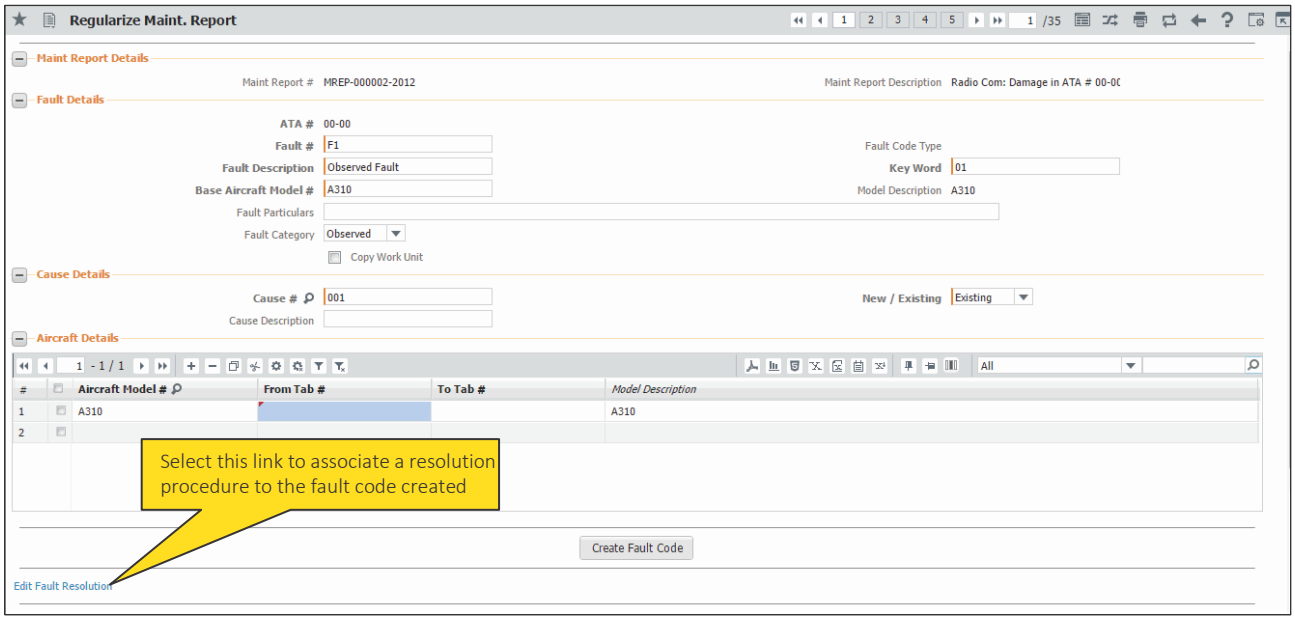

Figure 4.6 Regularize maintenance report for fault codification

10. 10. Enter the starting tab number in the range of tab numbers for which the fault code is applicable, in the **From Tab #** field. Enter the ending tab number in the range of tab numbers in the **To Tab** # field.
11. Click the **Create Fault Code** pushbutton to create the fault code.

Note: The system creates the fault code, specific to the aircraft model and attaches the maintenance report.

The status of the fault code is set to “Fresh”.

12. Select the **Edit Fault Resolution** link to update the fault resolution procedure associated with the fault code. For more information refer to the topic “Associating resolution procedure to a fault code”.

You can proceed to do the following:

- Select the **Edit Fault Resolution** link, to associate resolution procedure to a fault code.

4.5 APPROVING FAULT CODES

You can approve, cancel or inactivate fault codes created.

1. Select **Approve Fault Code** under the **Fault Isolation Manual** business component. The **Approve Fault Code** page appears. *See Figure 4.7.*

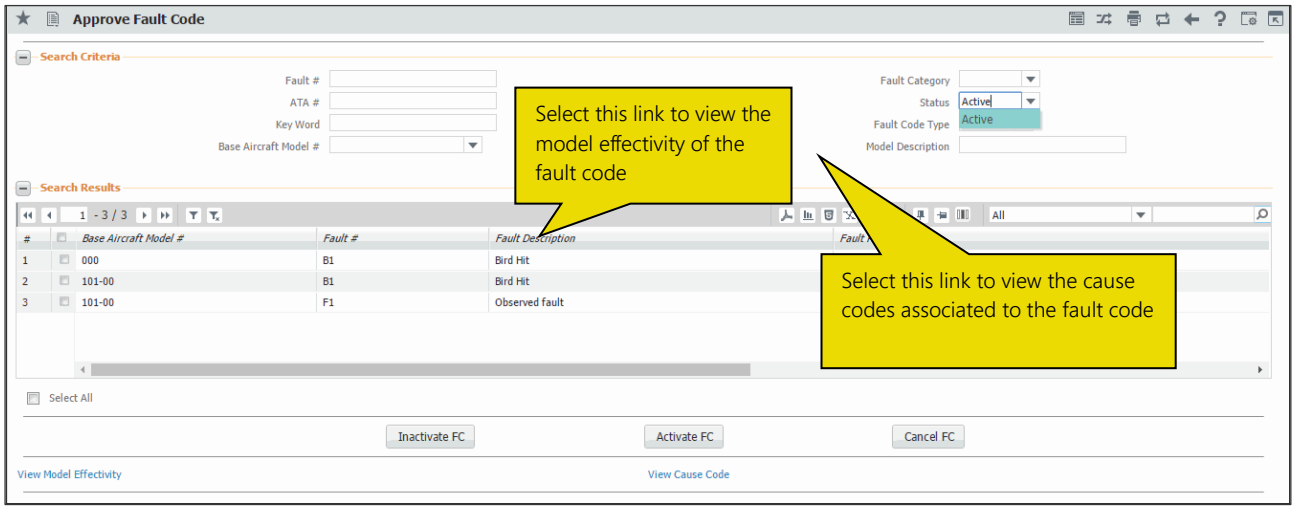

Figure 4.7 Approving fault codes

2. Enter the **Search Criteria** to search for the fault code that has to be approved, cancelled or de-activated.
3. Based on the search criteria entered, the system displays the fault code details in the **Search Results** multiline.
4. In the multiline, select the fault code that must be approved, cancelled or de-activated.
5. Click the **Inactivate FC** pushbutton to de-activate the selected fault code(s).

   Note: You can inactivate fault codes, which are in the "Fresh" or "Active" status. The system changes the status of the selected fault codes to "Inactive".

6. Click the **Activate FC** pushbutton to approve the fault code(s).

   Note: You can approve fault codes, which are in the "Fresh" or "Inactive" status. The system changes the status of the selected fault codes to "Approved".

7. Click the **Cancel FC** pushbutton to cancel the selected fault code(s).

   Note: You can cancel fault codes, which are in the "Fresh" status. The system changes the status of the selected fault codes to "Canceled".

You can proceed to do the following:

- Select the **View Model Effectivity** link to view the model effectivity information of the selected fault code.
- Select the **View Cause Code** link to view the cause code information of the selected fault code.

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