ramco

RAMCO AVIATION SOLUTION
VERSION 5.8

USER GUIDE
ENGINEERING HUB

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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 2 chapters. Given below is a brief run-through of what each chapter consists of.

Chapter 1 provides an overview of **Engineering Hub**.

Chapter 2 focuses on the procedures involved in the functioning of **Engineering Hub**.

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

Engineering Hub acts as a single stop shop for the management of all types of engineering documents including MCR, EO, ESR & EAN.

The Hub facilitates retrieval of documents on the basis of:

- Status
- Exceptions
- User-specific search

On launch, the Hub retrieves engineering documents by means of automatic/default search based on their Status and Exception. Additionally, the users can also search and find documents of their choosing based on document attributes, such as **Doc. #**, **Part #**, **Aircraft #, Doc. Status, Created By** and **Subject**.

The hub keeps traversal to a minimum for users, by enabling the users to create and process any engineering document (MCR, EO, ESR or EAN). Further, the hub also provides users with comprehensive and critical information on the entire **Engineering Change Management** business process upfront on the launch of the screen. The hub makes the management of engineering documents straightforward and foolproof since this process is a critical regulatory requirement in the Aviation industry and also frequently performed by the aircraft maintenance engineers.

WORKING WITH ENGINEERING HUB

The **Engineering Hub** facilitates the users to work with all of the following documents without traversing to individual components

- Maint. Change Request
- Eng. Document
- Eng. Service Request
- Eng. Advice Note

Users can create, update, process, confirm, release, cancel or view the details of the above documents. The Hub being intuitive guides the users to perform successive actions on the document based on document type and status.

Users can access the required links to manage/perform the next valid action or view documents in the Hub.

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2.1 Working in Engineering Hub

On launch of the **Engineering Hub** screen, the users are presented with the current status of the **Engineering Change Management** process. For example, users can swiftly retrieve the document they want to work with and then proceed to perform the next valid action. The screen being intuitive highlights the next valid action for a document based on document type and status.

2.1.1 Retrieving documents

1. Select the **Engineering Hub** link under the **Engineering Document** business component. The **Engineering Hub** page appears. *See Figure 2.1.*

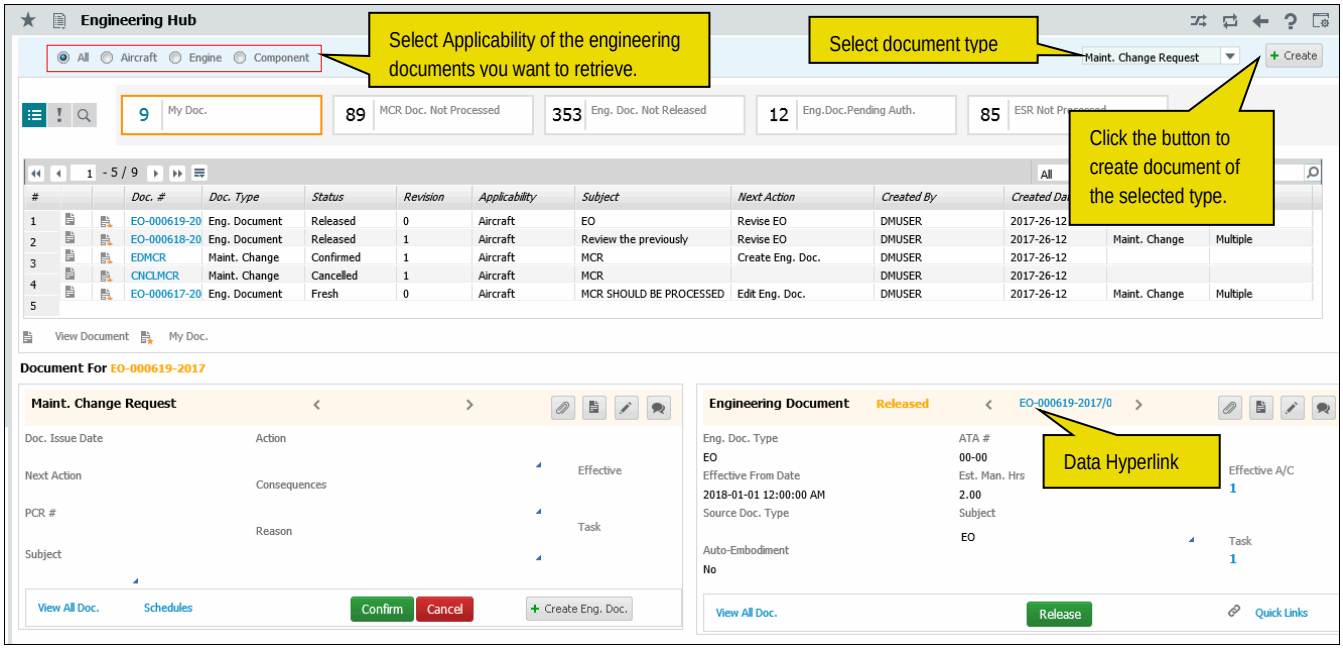

Figure 2.1 The **Engineering Hub** screen

2. To retrieve documents regardless of the applicability, select the **All** radio button.

   *Note: By default, the **All** radio button remains selected on screen launch.*

3. To retrieve documents of the selected applicability, select the **Aircraft** radio button.
4. To retrieve documents of the selected applicability, select the **Engine** radio button.
5. To retrieve documents of the selected applicability, select the **Component** radio button.

2.1.2 Creating engineering document

1. Select the document type from the drop-down list box at the top right of the page. The drop-down list box displays Maint. Change Request, Eng. Document and Eng. Service Request.
2. Select the + Create pushbutton to open **Create Maintenance Service Request**, **Manage Engineering Document** or **Create Engg. Service Request** activity.

2.1.3 Retrieving and working with documents based on Status

1. Click the icon to display the following tile cards that show the breakup of documents of the chosen applicability based on Status. *See Figure 2.2.*

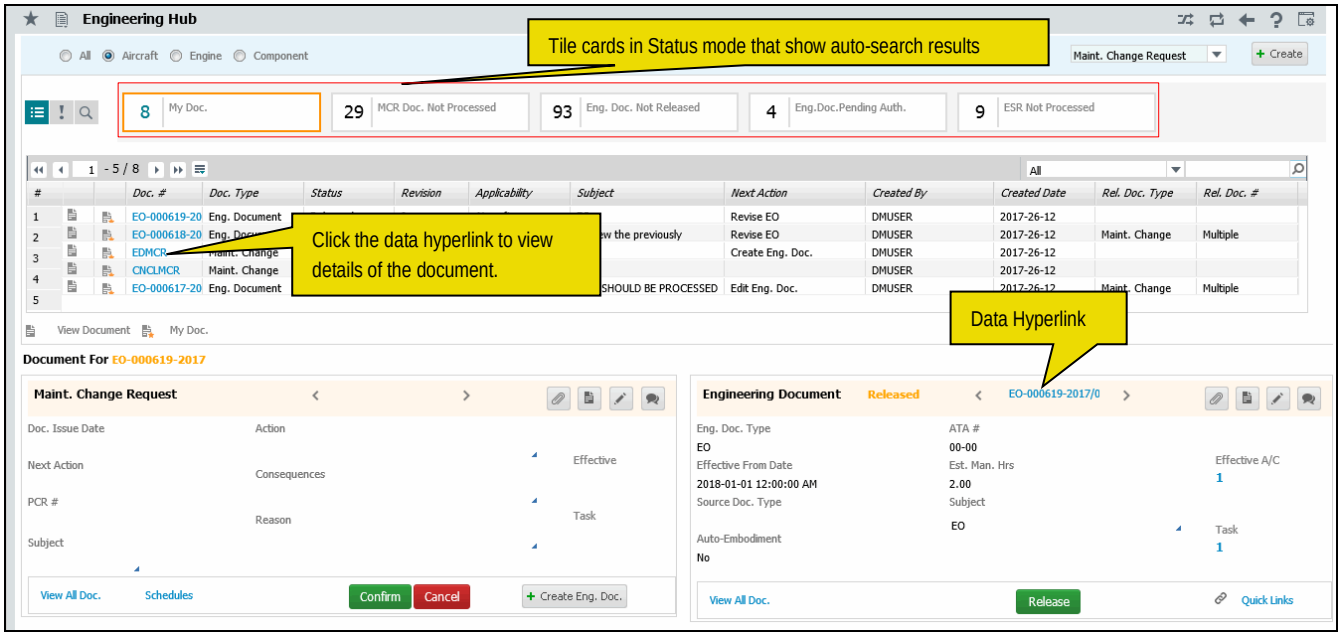

Figure 2.2 The tile cards available in the Status mode

- **My Doc.:** Displays the count of documents that are bookmarked to the login user.
- **MCR Doc. Not Processed:** Displays the count of those MCR documents that currently exist in the Fresh or Confirmed status.
- **Eng. Doc. Not Released:** Displays the count of those engineering documents existing in the Fresh status.
- **Eng. Doc. Pending. Auth.:** Displays the count of those engineering documents that exist in the "Pending Authorization" status.
- **ESR Not Processed:** Displays the count of those engineering service requests for which Eng. Advice Note have not been created yet or associated with the ESR.

2. Click on the required tile card to display those records in the multiline.

2.1.4 Retrieving and working with documents based on exceptions

1. Select the icon to display the following tile cards that show the breakup of documents of the chosen applicability based on Exception. *See Figure 2.3.*

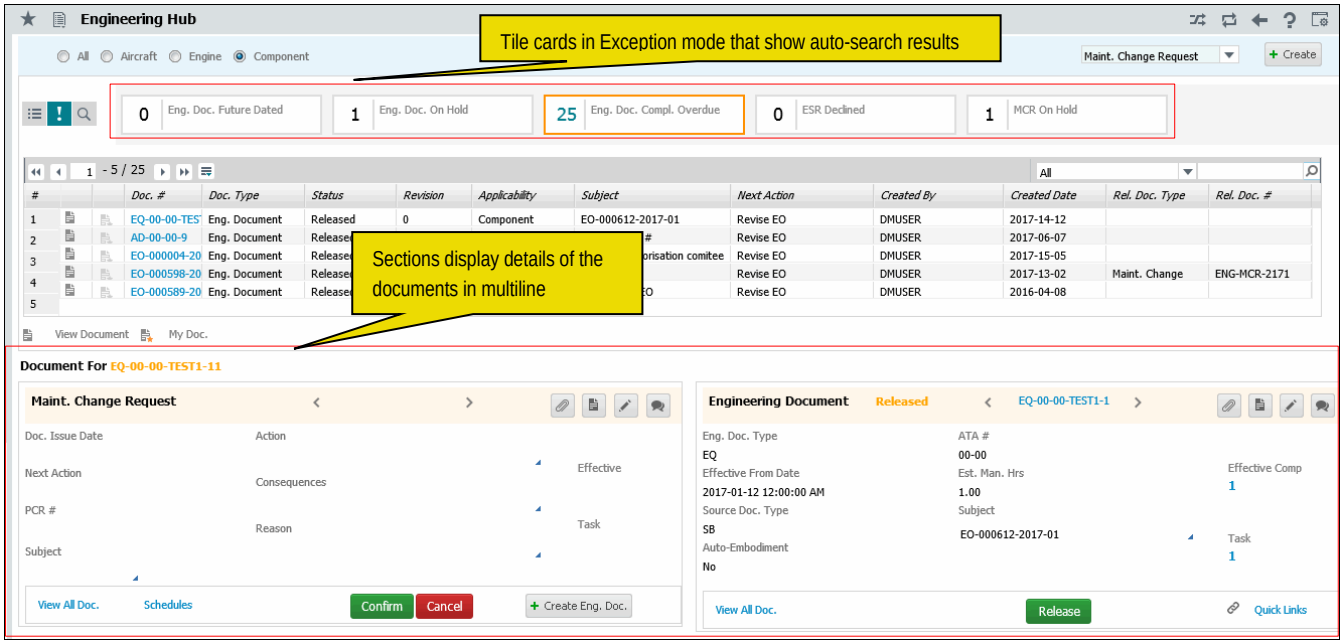

Figure 2.3 The tile cards available in the Exception mode

- **Eng. Doc. Future Dated**: Displays the count of those engineering documents with "Effective From Date" later than the current date and time.
- **Eng. Doc. On Hold:** Displays the count of those engineering documents for which “Applicable" field (in the ‘Effectivity’ tab) is set as ‘Hold’.
- **Eng. Doc. Compliance Overdue:** Displays the count of those engineering documents for which tasks have not been complied yet; - meaning the tasks have become overdue as their Next Schedule Date/Next Schedule Value has since elapsed.
- **ESR Declined:** Displays the count of those engineering service requests for which engineering advice note are in “Response Declined” status.
- **MCR On Hold:** Displays the count of those MCR documents for which PCR documents are in the ‘Hold’ status.

2.1.5 Retrieving / working with documents of specific document attributes

1. Select the icon to specify search criteria to retrieve documents of the selected applicability. *See Figure 2.4.*

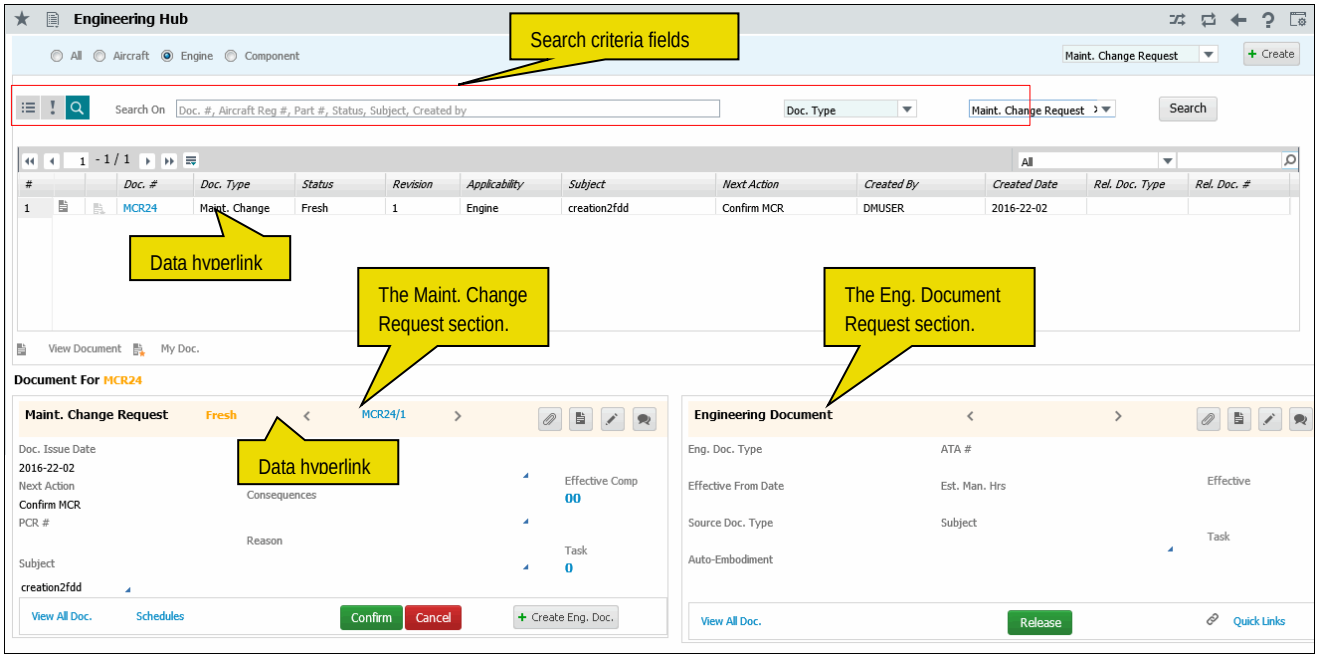

Figure 2.4 The user-specific Search mode

2. In the **Search On** field, to retrieve documents with specific **Doc. #**, **Aircraft #**, **Part #**, **Subject**, **Status** and / or **Created by**, enter values for these attributes.
3. Note: The
4. From the first drop-down list box, select **Doc. type**.
5. From the second drop-down list box, select the type of documents you wish to view or process. The drop-down list box displays:

- **Maint. Change Request**
- **Eng. Document**
- **Eng. Service Request**
- **Eng. Advice Note**

6. Click the **Search** pushbutton to display documents retrieved by the search.

2.1.6 Data retrieval

The multiline retrieves documents on click of the tile cards in the Status and Exception modes as well as based on the search criteria provided by users. *See Figure 2.5*.

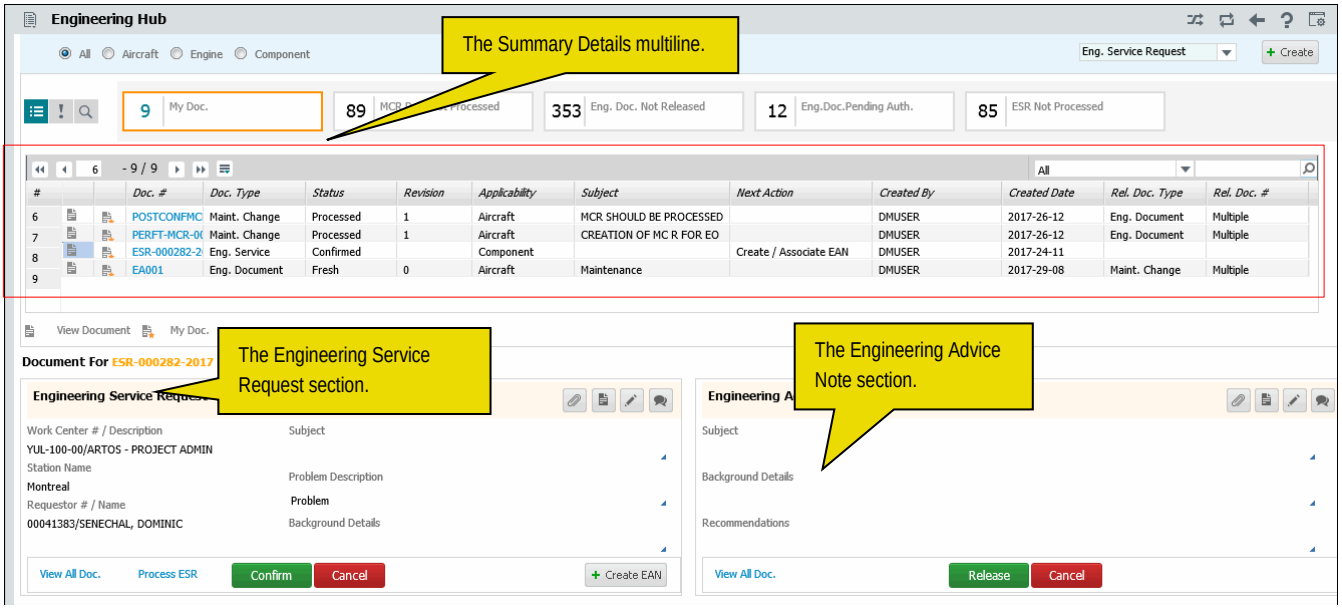

Figure 2.5 The **Summary details** multiline

The users can then proceed to modify or process them. Details of the retrieved document displayed in the multiline include:

- _ Click on the icon to display details of the document in the appropriate sections shown at the bottom of the page.
- – Indicates the document is not bookmarked to the user. Click on the icon to bookmark the document to the user. The My Doc. count increases by 1.
- – Indicates the document is bookmarked to the user. Click on the icon to un-bookmark the document to the user. The My Doc. count decreases by 1.Click on the tile to display these documents in the multiline.
- **Doc. #** _ The number uniquely identifying the document. Click on the data hyperlink to view the details of the document. Depending on the type of the document, the following pages appear.

Doc. Type	UI
MCR	View Maintenance Change Request
Eng. Doc	Manage Engineering Document
Eng. Service Request	View ESR
Eng. Advice Note	View EAN

- **Doc. Type**: The type of the document that can be:
  - Maint. Change Request
  - Eng. Document
  - Eng. Service Request
  - Eng. Advice Note
- **Status**: The status of the document, such as
- **Revision**: The revision # of the document.
- **Applicability**: The applicability of the document, such as Aircraft, Component or Engine.
- **Subject**: The subject of the document.

- **Next Action**: The next valid action on the document.
- **Created By**: The login user who created the document.
- **Created Date**: The date on which the login user created the document.
- **Ref. Doc. Type**: The type of the reference document that initiated the creation of the document.
- **Ref. Doc. #**: The number uniquely identifying the document.

1. Click the **Doc #** data hyperlink to view details of the document, if the document is in the **Released**, **Confirmed**, **processed** or **Cancelled** status. However, if the document is in the **Fresh** status, the **Manage Eng. Document** page appears.

2.1.7 Maint. Change Request section

This section displays the details of the MCR document for which you have clicked the icon in the multiline. Alternatively, if you have clicked the icon for an engineering document, the section displays the details of the MCR document associated with the engineering document. *See Figure 2.5*.

1. Click on the hyperlinked **MCR #** on the top of the section to view details of the document, if the document is in the **Released**, **Confirmed**, **processed** or **Cancelled** status. However, if the document is in the **Fresh** status, the **Manage Eng. Document** page appears. *See Figure 2.4*.

You can view the following details of the MCR in the section:

- Doc. Issue Date
- PCR #
- Next Action
- Subject
- Reason
- Consequences
- Next Action
- Count of aicraft on which the MCR is effective
- Count of tasks in the MCR to be executed on the aircraft or component

2. Click on the **Previous** button to display details of the previous document in a series of multiple-related documents.
3. Click on the **Next** button to display details of the next document in a series of multiple-related documents.
4. Click on the **PCR #** data hyperlink to view details of PCR document related to the MCR document.
5. Click the **View All Doc**. link to open the **View Maint. Change Request** page.
6. Click the **Schedules** link to open the **View Schedule Information** page for the MCR.
7. Click the **Confirm** pushbutton to confirm the MCR.

   Note: The status of the MCR becomes 'Confirmed'. If a lower revision exists for the now confirmed MCR, the status of the lower revision is set to 'Revised' on clicking the 'Confirm' pushbutton. This paves the way for the creation of the engineering document for the MCR.

8. Click the "Cancel" pushbutton to terminate the MCR.

   Note: The system sets the status of the MCR to 'Cancelled'. If a previous revision exists (immediately prior to the now cancelled MCR) in the status 'Revised' the system changes the status to 'Confirmed'.

9. Click the icon to open the "Manage Eng. Document" activity for the MCR.

2.1.8 Engineering Document section

This section displays the details of the engineering document for which you have clicked the icon in the multiline. Alternatively, if you have clicked the icon for MCR document, the section displays the details of the engineering document associated with the MCR. *See Figure 2.4*.

1. Click on the hyperlinked **Eng. Doc. #** on the top of the section to view details of the document, if the document is in the **Released**, **Confirmed**, **processed** or **Cancelled** status. However, if the document is in the **Fresh** status, the **Manage Eng. Document** page appears.

You can view the following details of the engineering document in the section:

- Eng. Doc. Type
- ATA #
- Effective from Date
- Est. man hours
- Mfr. Name
- Auto – Embodiment
- Subject
- Count of aircraft for which the engineering document is effective
- Count of tasks in the engineering document to be executed on the aircraft or component

2. Click the **View All Docs.** link to open the **Manage Engineering Document** page.
3. Click the **Release** pushbutton to release the engineering document for execution.

   Note: The system sets the status of the engineering document to 'Released' and triggers the execution of the tasks in the document.

4. Click **Quick Links** to display the following links:

- **Initialize Maint. Prog. & Update Compliance**
- **Track Maintenance Compliance History**
- **Eng. Doc. Compliance Status Report**
- **Authorize Eng. Doc.**

2.1.9 Engineering Service Request section

This section displays the details of the ESR document for which you have clicked the icon in the multiline. Alternatively, if you have clicked the icon for an EAN document, the section displays the details of the ESR document associated with the EAN. *See Figure 2.5*.

1. Click on the hyperlinked **ESR #** on the top of the section to view details of the document, if the document is in the **Released**, **Confirmed**, **processed** or **Cancelled** status. However, if the document is in the **Fresh** status, the **Manage Eng. Document** page appears. You can view the following details of the ESR document in the section:

- **Work Center # / Description**
- **Station Name**

- Requester # / Name
- Subject
- Background Details
- Problem Description

2. Click the **View All Docs.** link to open the **View Engg Service Request** page.
3. Click the **Process ESR** link to open the **Select Engg. Service Request** page to further work on the ESR document.
4. Click the **Confirm** pushbutton to confirm the ESR.

   Note: The status of the ESR is updated to "Confirmed". The system appropriately updates the engineering service request number to the work order number, discrepancy number or the maintenance report number in the respective business components.

5. Click the **Cancel** pushbutton to terminate the ESR.

   Note: The status of the ESR is updated to "Cancelled".

6. Click the

pushbutton to open the **Create EAN** activity for the ESR.

2.1.10 Engineering Advice Note section

This section displays the details of the EAN document for which you have clicked the icon in the multiline. Alternatively, if you have clicked the icon for ESR document, the section displays the details of the EAN document associated with the ESR. *See Figure 2.5.*

1. Click on the hyperlinked **EAN #** on the top of the section to view details of the document, if the document is in the **Released**, **Confirmed**, **processed** or **Cancelled** status. However, if the document is in the **Fresh** status, the **Manage Eng. Document** page appears.

You can view the following details of the ESR document in the section:

- Subject
- Recommendation
- Background Details

2. Click the **View All Docs.** link to open the **View Engg. Advice Note** page.
3. Click the **Release** pushbutton to release the EAN.

   Note: 1) When a new EAN is released: The status of the "Fresh" EAN is updated to "Released" and the status of the ESR is updated to "Closed". The reference of the ESR number is updated to the EAN number and the revision number. If a "Fresh" EAN released has a previous version, then the status of the previous version is updated as "Revised". The reference of the ESR number is updated to the EAN number and the revision number. The system stores the login user ID and the server date along with the release details. The system updates the "Released By" field with the login user ID and the "Released Date" with the current server date. The system also stores the server date as the date on which the EAN was associated to the ESR.

   Note: 2) When an existing EAN is released: In case the EAN released is a "Referred Advice Note", the status of the ESR in the "Engineering Service Request" business component is updated to "Closed". The reference of the ESR number is updated to the EAN number and the revision number. The system stores the server date as the date on which the EAN was associated to the ESR.

   Note: *3) When the EAN is released for a "Response Declined" ESR: The status of the EAN is updated to "Released" and the status of the ESR in the "Engineering Service Request"*

business component is updated to "Closed". The earlier ESR – EAN reference is removed and the new reference is updated.

4. Click the **Cancel** pushbutton to terminate the EAN.

> *Note: The status of the EAN is updated to "Cancelled". The cancelled EAN is disassociated from its corresponding ESR(s). The disassociated ESR(s) will be available again for processing.*

Icon legends

Icon	Function
	Opens the **Upload Documents** page.
	Opens the **View Associated Doc. Attachments** page
	Opens the appropriate screen for modifying the document, such as **Edit MCR, Manage Eng. Document**, **Edit ESR** or **Edit EAN** depending on the document type.
	Opens the **Collaborate** screen

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