

RAMCOAVIATION SOLUTION VERSION 5.9 USER GUIDE COMPONENT MAINTENANCE

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

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

Chapter 2 dwells on the **Component Maintenance Planning** sub process.

Chapter 3 dwells on the **Shop Maintenance** sub process.

Chapter 4 focuses on the Component Replacement 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" is 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 sicon 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

- 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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1INTRODUCTION

Aircraft consist of numerous maintainable sub-assemblies, referred to as components. These components have a prescribed maintenance program on the basis of which the maintenance actions are organized and executed. Line maintenance (typically inspection) is performed on-wing, without the component being detached from the aircraft. Off-wing maintenance is more comprehensive maintenance jobs and is executed after detaching from the aircraft in specialized "component shops".

This User Guide deals with the Component Maintenance business process. This business process comprises the Component Maintenance Planning, Shop Maintenance and Component Replacement sub processes.

The Component Maintenance Planning sub process provides support for forecasting the scheduled maintenance arising of components and allocation of the forecasted scheduled maintenance arising jobs of major components to visit package, line package or component shop or external repair shop.

The Shop Maintenance sub process provides support for work management at component shops for maintenance work execution on components. The sub process involves creating / modifying work orders for maintenance execution, workscoping / reworkscoping and estimating part / resource requirements.

The Component Replacement sub process provides support for recording of unserviceable component being removed for repairs from an operating aircraft / major assembly and a serviceable component being installed as replacement.

2 COMPONENT MAINTENANCE PLANNING

The component maintenance planning sub process provides a means to group all the scheduled maintenance activities to be performed on the component. It provides a single lookup for all the maintenance-related information for a component.

The component maintenance planning cell for component assesses all the up-coming maintenance activities that need to be executed for the component sets, which are due for maintenance.

The scheduled maintenance of components is driven through pre-defined maintenance programs. With the arising of these scheduled maintenance events, the component maintenance planner forecasts for a planning horizon and propagates execution planning. The planner finalizes the work scope; allocates the component removals and on-wing inspections to the visit package and creates work scope along with the work order.

The Component Maintenance Planning business component enables forecasting the scheduled maintenance arising of components and allocation of the forecasted scheduled maintenance arising jobs of major components to visit package, line package or component shop or external repair shop.

2.1 Generating forecast

2.1.1 Defining the quick codes

What are quick codes?

Quick Codes are user-defined values, used to categorize a set of details of identified behavior. These quick codes are later used in the process of retrieving or addressing the details by referring to the attached quick code.

Quick codes act as additional qualifiers for a business entity or document. Quick codes can assume user provided values which can be used to categorize/group an entity/document record to satisfy specific needs in a user organization's internal processes, especially with respect to unique reporting requirements

The quick code types such as "Planner Category", "Forecast Category", "Work Scope Category", "Forecast User Status", "Work Scope User Status", "Work Scope Group" and "Reason Category" are defined in the system. Quick codes can be defined under each of these quick code types.

1. Select **Create Quick Codes** in the **Component Maintenance Planning** business component. The **Create Quick Codes** page appears. *See Figure 2.1.*

* 🔋 Create Quick Codes	
Quick Code Type Forecast Category Select the quick	
(< (No records to display) >>> + □ o co v v v COde type ↓ Lo v C li v + ⇒ m a	۵ 🔻 ۱
# 🖻 Quick Code Description	
1 0	
Create Quick Code	

Figure 2.1 Creating quick codes

- Use the Quick Code Type drop-down list box to select the type of quick code to be created. You can define quick codes of the type "Planner Category", "Forecast Category", "Work Scope Category", "Forecast User Status", "Work Scope User Status", "Work Scope Group", "Reason Category", "Part Based Rules - User Defined-01", "Part Based Rules - User Defined-02" and 'U/S Part User Status'. Enter unique quick codes for the selected type, in the Quick Code field in the multiline.
- 3. Enter the **Description** for the quick code.
- 4. Click the Create Quick Codes pushbutton.
 - Note: The system assigns the "Active" status to the quick codes entered in the multiline. The system also copies all the quick codes created for the "Work Scope Category" in "Component Maintenance Planning" business component, to the "CWO Category" in the "Component Work Order" business component.

2.1.2 Setting option for component maintenance planning

You can set the default options for the various fields in the component maintenance planning



process.

1. Select **Set Options** under **Component Maintenance Planning** business component. The **Set Options** page appears. *See Figure 2.2.*

* 8	Se	Options			RAMCO OU-Ramco Role 🔻 🕮 🖨 🗲 🗧	6
					Date Format yyyy/mm/dd	
- Opt	on Sett	ing Details				
			Planning Object for Component Maintenance Planning	ATA#	•	
			Initial Start Date for Forecast	2011/11/06	11/06	
			Standard Horizon (Days)		120	
			Default parameter (for Utilization Factor)		v	
			Default Utilization Factor			
			Allocate On-Wing / Component Jobs to Visit Package	By CentralPlan	ntralPlanner/Component Planner 💌	
			Allocation of Component Jobs to Repair Order	All		
			Release of Forecast - Mandatory	Yes 💌	Indicate whether release	
			Work Center #			
			Default Location for Repair Order Generation	RAMCO OU	no ou 👻 Of forecast is mandatory	
			Default Piecepart Component #			
			Auto Priority	WS1 💌	•	
- War	ehouse	Details				
•		6 - 10/10 🕨 🗰 🛨 🗖 🗇 🛠 ⊄ 🌾 🍸 🏹			人 血 夏 図 区 画 × 数 単 神 Ⅲ 14 % All ▼ Search	Q
#		Unserviceable Recv.Warehouse ,O	External Repairshop Warehouse	Q	D Repair Automation?	
6		YULES	YULES			~
7		YULESREC			Yes	~
8		YULESUS				~
9		YULHGR				~
10		YULHMUS	YULCS		No	~
		4				×.
			Set 0	Options		

Figure 2.2 Setting option for component maintenance planning

- 2. Select the **Planning Object for Component Maintenance Planning**. The planning object could be "Part #", "Component #", "ATA #" or "Component Family".
- 3. Enter the Initial Start Date for Forecast.
- 4. Enter the **Standard Horizon (Days)**, the time interval for the forecast on the components (in days).
- 5. Enter the **Default Parameter (for utilization factor)**. The system lists all the parameters in the "Active" status.
- 6. Enter Allocate On-Wing / Component Jobs to Visit Package. The options are "Component Planner", "Central Planner" and "Component Planner/central Planner".
- Enter Allocation of Component Jobs to Repair Order. The options are "Repair Order Administrator", "By Component / Shop Planner", "By Shop Planner", "Component Planner" and "All".
- Use the Release of Forecast Is Mandatory (Yes/No) drop-down list box to indicate whether the release of forecast is mandatory or not. The system lists the following options
- 9. Use the **Work Center #** drop-down list box to select the default work center for performing component jobs.
- 10. Use the **Default Location for Repair Order Generation** drop-down list box to select the default location for repair order generation.
- 11. Enter the default component number for the piece part in the **Default Piece** Part Component # field.
- 12. Enter the Auto Priority for the forecast. The system all the "Active' priority descriptions defined in the Create Priority Numbers activity of the Common Master business component.
- 13. Enter the Unserviceable Recv. Warehouse and External Repair shop Warehouse in the Warehouse Details multiline.
- 14. Use the **Repair Automation** drop-down list box to indicate whether repair orders can be generated automatically based on repair automation rules

defined for the unserviceable parts received in the unserviceable warehouse.

15. Click the **Set Options** pushbutton to record the options set.

2.1.3 Creating planner group

A Planner Group is a set of people who plan the maintenance for a set of ATA(s) / Component(s) / Component Family / Part(s). Component forecast can be executed only on the basis of these planner groups.

- 1. Select Create Planner Group under Component Maintenance Planning business component. The Create Planner Group page appears. *See Figure 2.3.*
- 2. Enter the number identifying the planner group in the **Planner Group #** field. Enter the **Description** and **Planner Category**.
- 3. Specify the basis for the planner group being created in the **Planner Group Basis** field. The options available are: "Aircraft", "Inventory", "Aircraft & Inventory" and "Generic".
- 4. Use the **Maint. Operator #** drop-down list box to specify the Maintenance Operator number of the planner group.
- 5. You can copy the details from an existing planner group. Enter the planner group number in the **Planner Group #** field in the **Copy Details** group box. Specify copy **Options**.
 - Note: You have to specify at least one of the copy options, if you have entered the planner group.
- 6. Enter the user you wish to associate with the planner group, in the **User Name** field, in the **User Details** multiline.

*	C	reate Planner G	Group				RAMCOOU-Ramco Ro	le 🕶 🕮 🖨 🖨 🗲	? 🗔
- Pla	inner G	Froup Details	Planner Planner Ca Planner Grou C	Group PG 12 ategory v p Basis Generic comments	Enter the number the planner grou of which is to be	er identifying ip, the detail copied	Description Planner Group 12 User Defined 1 Maint. Operator # 1A		
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#		User Name	Q	Employee #	Employee Name		Remarks		
1	8	0000025							
2									
					Create Planner Gr	que			
Associa	ite Plani	ning Objects			Associat	e Aircrafts			

Figure 2.3 Creating a planner group

- 7. Click the Create Planner Group pushbutton to record the planner group details.
 - Note: Before creating a planner group, ensure that you have mapped a planning object in the "Set Options" activity for the current login organization unit.

2.1.4 Generating a forecast arising

Forecasting the maintenance activities for the components helps you to plan the material and resources needed for the maintenance activity like skills, facilities and equipment



requirements.

- 1. Select **Create Forecast under Component Maintenance Planning** business component. The Select Planner Group page appears.
- 2. Enter the **Planner Group #** and select the **Create Forecast** link alongside. Or, search for a planner group and select on the hyperlinked planner group in the **Search Results** multiline. The **Generate Component Forecast** page appears. *See Eigure 2.4*

Generate Component Forecast Forecast Criteria Forecast Criteria Planner Group P62 Plan
Date Format yyyyddinm Planner Group PG2 Planner Group PG2 Planner Group 2 Planner Gr
Planner Group PG2 Planner Group PG2 Planner Group PG2 Planner Group PG2 Planner Group C Planner Group C Planner Group C Planner Group C Planner Group C Planner Group C Planner Group C End Date 2012-06-03 Numbering Type C User Status Forecast User Defined Detail 1 Generate Forecast Generate Forecast Generate Forecast (Numbering Type C User Status Forecast User Defined Detail 2 User Status Forecast User Defined Detail 2 Forecast User Defined Detail 2 Forecast User Defined Detail 2 Forecast User Defined Detail 2 Forecast User Status Forecast User Status Forecast User Defined Detail 2 Forecast User Status Forecast Status F
Generate Forecast
(4) 4 [No records to display] ト) * * * * *
ATA # Chapter Description No. of Components
Found no rows to display!!!
View Planner Group Details

Figure 2.4 Generating a component forecast

- 3. The system displays the **Start Date** as set in the **Set Options** activity. Enter the date till which the forecast is done in the **End Date** field.
 - Note: If the expiry date for the component number (defined in the "Stock Maintenance" business component) falls within the forecast date range, then the component and the corresponding work units are stored for shelf life expiry in the forecast log with job source as "Shelf Life expiry".
- 4. Use the **Numbering Type** drop-down list box to select the numbering type based on which the **Forecast #** has to generated.
 - Note: To create a new numbering type, select "Create Document Numbering Class" under "Document Number Class" business component. For more details, refer to the "Storage Area Administration" chapter in the "Inventory Set Up" User Guide.
- 5. Use the **Forecast Category** drop down list box to specify the category to which the forecast belongs and the **User Status** drop down list box to specify the user status of the forecast.
- 6. Check the **Release Forecast** box to release the forecast as it is generated.
- 7. Click the **Generate Forecast** pushbutton. The system creates the forecast and enters the forecast details into the forecast log.
 - Note: The system generates the forecast according to the conditions specified for the components in the Component Maintenance Program business component as attached to the planner group selected.
- 8. The system displays the ATA chapter wise summary of the maintenance

raisings in the Summary Of Component Arisings group box.

2.1.5 Releasing a component forecast

The forecast generated has to be "released" for the execution of the maintenance requirements.

1. Select **Release Forecast** under **Component Maintenance Planning** business component. The **Release Component Forecast** page appears. *See Figure 2.5.*

\star 🔋 Release Component Forecast							? 🗔 🖪
Court Citate				Date F	ormat yyyy-dd-mm		
Planner G	ast # Date		Search	User S To Date	Status Date Basis	iii	
Search Results							
44 4 1 -1/1 » »» T Tx				▶ 느 및 ㅈ 🖂 🗎 単	🗯 💷 🖌 Al	•	Q
# E Forecast #	Start Date	End Date	User Status	Last Modified Date	Planner Group	Description	
1 CF-000005-2012	2012-03-11	2013-03-11		2012-03-12	PL 1	pl 1	
<							>
Option : 🔲 Select All							
				Release Forecast		Cancel F	orecast

Figure 2.5 Releasing component maintenance forecast

- 2. Enter appropriate search criteria in the **Search Criteria** group box and click the **Search** pushbutton. The system displays all the forecast arisings matching the search criteria.
- 3. **Select** the **Forecast** in the multiline and click the **Release Forecast** pushbutton to release the selected forecasts.
- 4. Click the Cancel Forecast pushbutton to cancel the selected forecast arisings.

2.1.6 Re-forecasting the component arising

The allocations performed by the component maintenance planner to the various execution centers can undergo revisions. Re-forecasting the maintenance arisings is done to implement changes in the work scope or the planned dates.

- 1. Select **Re-Forecast** under **Component Maintenance Planning** business component. The Select Forecast page appears.
- 2. Enter the Forecast # and select the Re Forecast Component Arisings link alongside. Or search for forecast and select the hyperlinked forecast number in the Search Results multiline. The Re Forecast Component Arisings page appears. The system displays the forecast details in the Forecast Details group box. *See Figure 2.6.*



Forecast Details Forecast CF-127192-2016 Forecast Category Planner Group ADAM-1 Re Forecast Category Starts Date 31/01/2016 Forecast Category Forecast Category Planning Object Type ATA# End Date 30/01/2017	
Forecast # CF-127192-2016 Forecast Category Planner Group ADAM-1 Re Forecast Cont 120 Start Date 31/01/2016 End Date 30/01/2017	
Forecast Category User Status Planner Group ADM-1 Description ADM-1 Re Forecast Count 120 Planning Object Type ATA# Start Date 31/01/2016 End Date 30/01/2017	
Planner Group ADM-1 Description ADM-1 Re Forecast Count 120 Planning Object Type ATA# Start Date 31/01/2016 End Date 30/01/2017	
Re Forecast Count 120 Planning Object Type ATA# Start Date 31/01/2016 End Date 30/01/2017	
Start Date 31/01/2016 End Date 30/01/2017	
Re-Forecast	
Component Arisings	
(4 < [No records to display] >>> ▼ T, 上回③乙尼首修 平 1 Ⅲ AII ▼	Q
# 🖻 Re-Forecast Impact No. of Component Jobs	
Edit Utilization Factor View Forecast Details	
Kecord Statistics	
Created by DMUSER Created Date 01/03/2016	
Released by DMUSER Released Date 12/07/2016	
Last Modified by DMUSER Last Modified Date 12/07/2016	

Figure 2.6 Re-forecasting a component arising

3. Click the **Re-Forecast** pushbutton to re-forecast. The system displays the impact of the re-forecast, in the **Component Arisings** multiline.

You can proceed to do the following:

- Process the work scope details of the re-forecast
- Modify the utilization parameters of the aircraft

Process re-forecast details

You can process the work scope details of the re-forecasted component forecast arisings to implement the impact of the re-forecast.

- 1. Select **Process Re-Forecast** under **Component Maintenance Planning** business component. The Select Forecast page appears.
- 2. Enter Search Criteria and click the Search pushbutton. Select the forecast in the multiline and select the Process Re-Forecast link at the end of the page. The Process Re-Forecast page appears. See Figure 2.7.





Figure 2.7 Processing re-forecast maintenance arisings

- 1. Click one of the following pushbuttons:
 - Change Allocations, to implement the re-forecast changes in the work units.
 - **Cancel Allocations,** to mark the work unit as "Cancelled" and remove the work unit from the forecast.
 - ▶ Ignore Impact, to ignore the impact of the change due to the re-forecast.

Modify utilization factor of an aircraft

The forecast is generated based on the utilization factor of the aircraft to which the component is attached. You can edit the utilization factor details during re-forecasting.

- 2. Select the Edit Utilization Factor link in the Re-Forecast Component Arising page. The Edit Utilization Factor page appears. *See Figure 2.8.*
- 3. The system displays the forecast details in the **Forecast Details** group box. The utilization details of the aircrafts under planner group are displayed in the **Aircraft Utilization** details group box.



*	Ì	Edit Utiliza	tion Facto	or														73		ţ	+ 1	? [¢ K
	_															Dat	e Format	dd/mm/yyy	y				
	Fore	cast Details —												Description									
					Franker Group	ADAM-1							0	Descript	ION AD	M-1							
					Porecast #	CF-12/192-2016							Planning		pe All	A#							
	Airc	raft Utilisation	Details		Start Date	31/01/2016								End Di	ate 30/	01/201/							
		[No records to	dienlaw]							A. D	. a v	107 B	र्ध कर क			All			-				0
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#		Ancrait Key	#	,	HITCTATE MOUEL #		Leau Parameter		Average value	•													
1																							
_																							
								Edit Utilizatio	on Factor														

Figure 2.8 Modifying utilization factor of the aircraft

- 4. You can alter the value displayed in the Average Value field.
- 5. Click the Edit Utilization Factor pushbutton to record the modified details.

2.1.7 Routing unserviceable components or parts

You can route all the unserviceable components or parts to the appropriate warehouse for internal repair, external repair or exchange, through an unserviceable routing warehouse.

- 1. Select Route Unserviceable Components/Parts under Component Maintenance Planning business component. The Route Unserviceable Components/Parts page appears. *See Figure 2.9.*
- 2. Select the Unserviceable Routing WH #, Zone # in the Warehouse Details group box.
 - Note: You can select the value "All" in the Unserviceable Routing WH #, to retrieve the details of all the Unserviceable Parts available in the list of all Unserviceable Warehouses identified as 'Unserviceable Recv. Warehouse'.
- 3. Enter the appropriate search criteria in the **Search Criteria** group box and click the **Search** pushbutton.
- 4. The system displays the details of unserviceable components or parts along with the ownership details in the **Unserviceable Components/Parts** multiline.
- 5. Use the **Routing Reason** drop-down list box to select the reason for storing the unserviceable component / part and routing to another location.
- 6. Enter comments on the storing/ routing of the unserviceable component/ part to another location in the **Routing Remarks** field.
- 7. Enter **Repair Order #** generated for the part on removal based on automated removal rules.
- 8. Enter the **Processed Qty**. and **Work Center** # for execution of maintenance for the unserviceable parts.
- 9. Enter the name of the receiving station of the unserviceable part in the **Station** Name field.
- 10. Provide additional details on the stock transfer to / long term parking of the

unserviceable part at the warehouse, work center or repair shop in the **Move Remarks** field.

- 11. Click the hyperlinked **Under Warranty?** field which could be "Yes", "No" or "Not Evaluated" in order to view the associated warranty instances of the part
- 12. Use the **Stock Transfer Mode** drop-down list box to specify the transfer mode by which the part is to be routed to the warehouse.

*	f 🗄 Route Unserviceable Components / Parts RAKCO OL-Ramo Role * 24 🖨 🛱 🌾 ? 🗔													
				Г						Date Format	t mm/dd/yyyy			
- Wa	rehous	e Details —	U/S Routing WH	# All -	Unserviceable		Zone #	ALL	Ŧ		Warehouse Descript	ion		
- Sea	rch Cri	teria			Routing WH# ar	hd								
_			Part	#			Part Description	on Work Center #						
			SOS Dispositi	on	From Zone # fie	lds	Display Options 💌 Object Type							
			Prime Part		will be visible or	ly if	Primary Model #	Primary Model # Part Classification						
			Possession Stat	15		iiy ii	Ownership Receipt Dates From/To 2020/04/15 🗰 2020						2020	12/18
			Material Control	ier	"Unserviceable		Auto Evaluation?		•			Snow only fail	ed kepair Automatio	n records
	Routing WH #" is													
- Uns	Deserviceable Components / Parts ROULING WITH # 15													
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#		Part	<i>ŧ</i>	Part Type	handar	¢	ng WH #	From Zone #	From Bin #	Material Controller	UOM	Avail. Qty:	Processed Qty	Work Center #
76		000:	99999	Component	neader			01	1	00043781 (NEDELCU, MIHAIL)	EA	1.00	1.00	YUL-100-00
79		000:	20000	Component	7507	0122		01	1	00043781 (NEDELCO, MIHAIL)	EA	1.00	1.00	YUL-100-00
79		0004	99999	Component	7H411	0123		01	1	00043781 (NEDELCO, MINALE)	FA	1.00	1.00	YUL 100-00
80	10	000:	99999	Component	ZSA	0123		01	1	00043781 (01	100	1.00	102-100-00
81	1	000:	99999	Component	2)(2)(2)(0100		01	1	00043781 Click her	e to retriev	ve vend	or for the	00
82		000:	99999_1	Component	0000	0123		01	1	00043781 ()				00
83		000:	99999_1	Component	4#	0123		01	1	00043781 (UNSERVIC	eable part	in the n	nultiline.	00
84		000:	99999_1	Component	5#	0123		01	1	00043781 ()				-00
85		000:	99999_1	Component	6#	0123		01	1	00043781 (1		\neg		00
														,
= cus	C Ofde	P Details	Customer PO	#			Repair Process Code		Ŧ		Customer Prio	ity		
							Evaluate / Get Contract					~		
							cvaruate y det contract					V	/	
			Internal Repair			External Repair	•		Ma	ove Parts		Evaluate Ve	ndor	

Figure 2.9 Routing unserviceable components or parts

- 13. Enter the Contract #, Customer Order #, Rem. Aircraft Reg #, Rem. MSN #, NHA Mfr. Part #, NHA Mfr. #, and NHA Serial #.
- 14. Use the To **Warehouse #** drop-down list box to select the warehouse to which the unserviceable parts must be transferred from the warehouse specified as the **Unserviceable Routing WH #.** The drop-down list displays all the issue warehouses mapped to the work center that are in Active status.
- 15. Specify the **To Zone #** and **To Bin #** in the destination warehouse (**To Warehouse #**) to which the unserviceable parts must be shifted prior to maintenance from the Unserviceable Routing WH #.
- 16. Specify the work to be executed on the component or piece part by the component work order in the **Work Requested** field.
- 17. Enter the Customer PO #, Repair Process Code, and Customer Priority in the Cust. Order Details group box.
- 18. Click the **Evaluate / Get Contract** pushbutton to retrieve the Contract # in the multiline and proceed further.
- 19. Click the **Internal Repair** pushbutton to assign components for internal repair. The system creates component work order for non-components and also creates work scope in "Fresh" status.
 - Note: The system ensures that the core return warehouse is mapped to the given work center in the "Work Center" business component, for the part type of the selected part that is to be routed. Also ensure that at least one warehouse is mapped as core return warehouse to the work center.
- 20. Click the External Repair pushbutton to assign components for external repair.
 - Note: Ensure that the external repair warehouse is mapped to the unserviceable routing warehouse in the "Set Options" activity.
- 21. Click the Vendor Return pushbutton to assign components for components for

vendor return.

- 22. Select the **Move Parts** pushbutton to transfer unserviceable parts from the **Unserviceable Routing WH #** to the issue warehouse of the work center.
- 23. Click the **Update Routing Info** pushbutton to save routing reason and remarks on the unserviceable part.
- 24. Select the **Evaluate Vendor** link to identify the repair agency for the selected part for external repairs in the multiline.

You can further do the following:

- Select the Create Repair Order link to create repair order for the selected part in the multiline.
- Select the Create Scrap Note link to create scrap order for the selected part in the multiline.
- Select the View Pending Transfer Issues link to launch the Inquire Inter Warehouse Movement Status UI in the Stock Transfer business component to select stock transfer for viewing issue and receipt details.
- Select the View Part Serial # / Lot # Transaction History link to launch Part Serial # / Lot # Transaction History UI in the Stock Maintenance business component to view the part-serial / lot transaction history.

2.1.8 Reviewing Repair Rules

- Click the data hyperlink in the Auto Evaluation? column to open the Review Repair Rules window. The Review Repair Rules popup appears with information for the selected unserviceable part / component from the Route Unserviceable Components/Parts page.
- 2. Select the **Get Current Value** pushbutton to compute and display current float value of the part / component.
- 3. Select the **Re-Evaluate Rules** to evaluate the repair order generation rules once again for the removed / unserviceable part / component routed for external repair.
- 4. Select **Regenerate RO** push button to create a fresh repair order for the removed / unserviceable part / component.

2.1.9 Managing Repair Automation rules

1. Select the **Repair Automaton Rules** link under the Component Maintenance Planning business component. The **Manage Repair Automaton Rules** page appears. *See Figure 2.10.*

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Figure 2.10 Setting Repair automation rules based on part

To define Part based rules

- 1. Select the **Part Based Rules** tab and enter details of the part on which the repair rule will be effective. *See Figure 2.10.*
- 2. In the multiline, specify **Part Ref. Code, t**he unique identifier of the part-based removal rule. On saving of the rule for the first time, **Part Ref. Code** is generated by the system on the basis of the numbering type defined for the transaction type Part Ref. Code.
 - Note: The numbering type for the transaction type Part Ref. Code must be defined in the Document Numbering Class business component.
- 3. Enter the order of priority for the rule for the purpose of generation of repair order in the **Priority** field.
- 4. Enter the description of the part-based removal rule in the **Part Ref. Description** field.
- 5. Enter **Part #** on which the repair automation rule is applicable.
- 6. Specify **Part Type** and **Part Classification** for the part on which the repair rule is applicable.
- 7. Use the **Include Alternatives?** drop-down list box to indicate whether repair rule is applicable for the alternatives of the part as well.
- 8. Enter Mfr. Serial # From and Mfr. Serial # To to specify the range of manufacturer serial # of the part on which the repair rule is applicable.
- 9. Enter **Mfr. Lot # From** and **Mfr. Lot # To** to specify the range of lot # of the part on which the repair rule is applicable.
- 10. Specify **Customer #** to indicate whether repair rule is applicable on the part owned by the customer
- 11. Specify **Rem. From A/C Reg. #, Rem. From A/C Model #, Rem. From NHA Part # and Rem. From NHA Serial #** to stipulate that the repair rule is applicable on the part, if removed from these maintenance objects.
- 12. Use the **Work Center #** drop-down list box to select the work center in which the component removal must be executed for the repair rule to become valid.
- 13. Use the **Warehouse** drop-down list box to select the warehouse associated with the work center in which the component removal must be executed for the repair rule to become valid.
- 14. Use the **Removal Reason** drop-down list box to select the removal reason for the component removal.
- 15. Use the **Part Ownership** drop-down list box to select the ownership of the part on which the repair rule is applicable.
- 16. Use the **Part Source** drop-down list box to select the means of procurement of the part on which the repair rule is applicable. The drop-down list box displays the following: Customer Exchange Return and Return.
- 17. Use the **Exe. Order Generation?** drop-down list box to indicate whether execution document must be automatically generated on removal of the part. The drop-down list box displays Yes or No.
- 18. Use the **RO Status?** drop-down list box to select the status of the autogenerated repair order for the component on removal based on the repair rule. The drop-down list box displays the following: Draft, Fresh and Released.

- 19. Use the **SWO Status?** drop-down list box to select the status of the autogenerated shop work order for the component on removal based on the repair rule. The drop-down list box displays the following: Draft and Released.
- 20. Enter start date and end dates of the period in which the repair rule is valid in the **Effective From and Effective To** fields.
- 21. Use the **User Status** drop-down list box to select the user-defined rule for the rule.

To define Parameter based rules

1. Select the **Parameter Based Rules** tab. See Figure 2.11.

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Figure 2.11 Setting Repair automation rules based on parameter

- 2. Enter the order of priority for the rule for the purpose of generation of repair order in the **Priority** field.
- 3. In the multiline, enter the description of the parameter based removal rule in the **Parameter Ref. Description** field.
- 4. Enter **Part #** on which the parameter based rule is applicable.
- 5. Enter **Customer #** that owns the part on which the parameter based rule is applicable.
- 6. Specify **Part Ownership**, **Part Source**, **Parameter Type** and **Parameter Entity** for the part on which the repair rule is applicable.
- 7. Specify **Value From** and **Value To** to specify the range of parameter values on attaining of which the repair rule is applicable on the part.
- 8. Enter **UoM** for the parameter of the part on which the repair rule is applicable.
- 9. Use the **Entity %** from the drop-down list box to select the percentage of the entity on which the repair rule is applicable. The drop-down list box displays the following: Ultimate Life and Target Float.
- 10. Use the **User Status** drop-down list box to select the user-defined status for the part on which the repair rule is applicable.
- 11. Use the **Exe. Order Generation?** drop-down list to indicate whether the execution document must be automatically generated on removal of the part. The drop-down list box displays No and Yes.
- 12. Use the **RO Status?** drop-down list box to select the status of the autogenerated repair order for the component on removal based on the repair rule. The drop-down list box displays the following: 'Draft', 'Fresh' and 'Released'.

- 13. Use the **SWO Status?** drop-down list box to select the status of the autogenerated shop work order for the component on removal based on the repair rule. The drop-down list box displays the following: 'Draft' and 'Released'.
- 14. Enter start and end dates of the period in which the parameter based rule is applicable in the **Effective From** and **Effective To** fields.
- 15. Click the Save pushbutton to save the rules.

≫ Note: The status of the repair rule becomes Fresh.

- 16. Click the **Confirm** pushbutton.
 - Note: The status of the repair rule becomes 'Confirmed'. On saving of the rule for the first time, Part Ref. Code / Rule ID is generated by the system on the basis of the numbering type defined for the transaction type Part Ref. Code.

3SHOP MAINTENANCE

Aircraft components are removed for maintenance and sent to the repair shop for necessary inspection or overhaul. The component is sent to the shop along with a work scope, which contains the activities to be performed at the component shop, to rectify the snag reported on the component. Component maintenance includes periodic inspection, testing, generating work orders, execution of engineering orders, etc.

The Shop Work Order business component enables you to create / modify shop work orders. Shop work order is a document that contains details about execution of maintenance jobs on aircraft parts / component(s) in the shops. Shop work order can be created under different scenario, e.g. when creating customer order, while routing the parts, etc. You can create / modify the work orders either by adding tasks or by modifying the attributes of the tasks / work order.

The business component allows you to accomplish the following:

- Create / modify work order.
- Attach sub parts / serial numbers to the main core and split work orders.
- Estimate work orders.
- Record execution details of work order.
- Generate sub work order.
- Perform Intershop Routing of parts.
- Return main core / issued parts / excess parts to warehouse.
- Generate teardown report of work order.



▶ Issue Certificates to work orders.

The process flow diagram and various statuses of the shop work order, are depicted in *Figure 3.1*.



Figure 3.1 Process flow diagram of shop work order

3.1 Defining quick codes for shop work order

3.1.1 Defining quick codes

You can create user-defined values called quick codes, used to categorize transactions in the "Shop Work Order" business component. The basic quick code types "User Status" and "Order Exec. Category" are predefined in the system. You can create the quick codes for these quick code types.

1. Select the Maintain Quick Codes link in the Shop Work Order business component. The Maintain Quick Codes page appears. *See Figure 3.2.*

★ 🗎 Maintain Quick Codes $\square \neq \bigcirc \square = \square + \bigcirc \square = \square$												
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	Search Critena	Quick Code Type	Status X 🔻				Order Status 🔍 👻					
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44	((↓ 1 -3/3)) + - □ → ☆ ☆ ▼ ▼											
#	Quick Code Type	Quick Code	Desc.	Status	Created By	Created Date		Last Modified By		Last Modified Date		
1	User States	✓ TUS-1	Task User status-1	Active 🗸	DMUSER	2014-30-09						
2	User Status	✓ TUS-2	Task User status-2	Active 🗸	DMUSER	2014-30-09						
3	User Status	▼ TUS-3	Task User status-3	Inactive 🗸	DMUSER	2014-30-09						
4	User Status			Active 🗸								
	Select the Quick Code Type											
	Click the pushbutton to create quick codes											
			Maintain Quick Codes					Link1		Link2		

Figure 3.2 Maintaining quick codes for shop work order

- 2. Enter the Search Criteria and click the Search pushbutton.
- 3. In the multiline, use the **Quick Code Type** drop-down list box to select the type of quick code to be created.
- 4. Enter the Quick Code which is unique to the organizational unit.
- 5. Enter the **Description** for the quick code.
- 6. Click the **Maintain Quick Codes** pushbutton to create and save the modifications made to the quick code.
 - Note: You cannot create / modify quick codes of Quick Code Type "In-Direct Category", if Component Interaction Model (CIM) interaction exists between the "Time Management" and "Shop Work Order" business components.

3.2 Planning Work Order

You can create / modify a shop work order. Work orders may be internal or external. Internal work orders are those that are basically created for the MRO use, whereas external work orders are customer-based. This activity currently allows you to create only internal work orders.

3.2.1 Planning work order

Work orders may be created or modified either by adding tasks or by modifying the attributes of the tasks / work order. The task addition or modification is done before or after the work order is released. For a main core which is part-serial-controlled, you can create only one work order in "Open" status. But for a main core at tracked at part level, more than one work order can be created in "Open" status.

In this activity you can perform the following:

- Create internal work orders.
- Modify internal / external work orders that are already created.
- Release work order for execution.
- Cancel work order.
- Initiate clock for workscope definition.
- Re-workscope by Upgrade or Append after a work order is released.
- 1. Select the **Plan Work Order** link under the **Shop Work Order** business component. The **Plan Work Order** page appears. *See Figure 3.3*.
- In the Search Criteria group box, use the Search On drop-down list box and select one of the options 'Part # / Serial #', 'Component #', 'Facility Object #', 'Shop Work Order #', 'Event #', 'Customer #', 'Customer Order #', 'Contract #', 'Operator #', 'Work Center #', 'Order Desc.', 'Order Category' and 'Rem. From A/C Reg #'.
- 3. Specify values corresponding to the selected option, in the editable box provided alongside, and click **Get** pushbutton to retrieve and display the matching work orders in the tree interface.
- 4. Select the **By Status** radio button to display the work orders and their child work orders in the "Work Order" tree, in a linear structure based on their statuses. Or, select the **By Event** radio button radio button to display the work orders and their child work orders in the "Work Order" tree, in a hierarchical arrangement grouped by Event #.

\star 📋 Plan Work Order **■ ≭ 春 ⊄ ← ? ■ ■** Search On Shop Work Order # Get CWO-008722-2015 By Event By Status Work Order Work Order Tasks Due List Order Details Or tion & Movement Details Reference Details Contract Terms & Conditions Removal & Warranty Details Enter search criteria 🗄 🗉 Search - Filter 🛛 🗙 🔎 🌳 👧 SWO # Order Status In-Progress Order Description TEST 😑 😑 CWO-008722-2015 Job Type Component 🔻 Primary Work Center # YUL-100-01 Event # CWO-008722-2015 🖻 😑 Routine Tasks Main Core Details - Fresh E 60-0 3-60-78 :: Prop Check 3 :: Part # / Serial # 👂 285T0607-9:81205 Serial # 👂 SL1182107 = 60-0 60-79 :: Prop Check 4 :: Component # C003413-2015 . Multiple Cores? No Main Core Status Not Applicable E 60-0 0-84 :: Prop Check 1 :: = 60-00 5 :: Prop Check 2 :: Stock Status Aveos Owned \mathbf{T} Part Desc. PROPELLER ASSEMBLY Operator # 03 🗄 🧰 Non-Ro kscoping Details - v Work order tree < Action on Revision Revision # 0 Workscoping Status Initial 💌 • + Important I structure Comments Shop Visit Count 1 – Links Repair Details Edit Work Estimates Repair Process Code INSPECTION -Repair Classification . Work Requested Update / Split Main Core Record Shop Execution Details Print Routing Slip cord Additional Charges on Order Generate Sub-Work Order - Filter Criteria Record Work Hold Record Part # / Serial # Change Work scope Items Additional Items O Detailed Item Route Unserviceable Com nts / Parts + Additional Search Criteria -Work Monitoring & Control - Task Details Route Parts Author Repair Procedure <f < 1 - 6 / 6 → → = All * Q Initialize Component Asslv # 🗇 M S EF *ES* 75 # Task # 🔎 Task Description ATA # D Exec. Action Eng. Instructions 🗆 N 🕶 N 🕶 I 🕶 PE Initialize Parameter Values 3 3-60-78 Prop Check 3 N v N v I v FK 3 3-60-78 N v N v I v PE FR 4 3-60-79 N v N v I v FE FR 4 3-60-79 FR 60-00 Execute alize Maint. Prog. & Update Comp 2 Prop Check 4 60-00 Execute ~ Track Compliance History 3 FR 5 3-60-84 Prop Check 1 60-00 Execute N N V I PE PR 5 3-60-64 N N V I PE FR 6 3-60-85 60-00 4 Prop Check 2 Execute Upload File 5 🖹 N 🕶 N 🕶 I 🕶 PE NST-003247-2015 TEST NST 00-00 Execute Track Response 🖹 N 🕶 N 🕶 I 🕶 PE IP 8 NST-003248-2015 NST 00-00 Execute TEST 7 🗇 N 🕶 N 🕶 I 🕶 View Task Details View Documents View Maintenance Log < Reschedule From Reschedule Adjust With PDD Cancellation Comments Release For Execution Start Clock Start Date 2016-26-05 15:46:56 Print Task Card(s) Update Work Order Cancel Work Order End Clock Start by DMUSER Print Sel. Task Card(s)

Figure 3.3 Plan work order – work order tree

The system displays the tree structures in the left pane, based on the search criteria:

Work Order Tree:

This tree displays all the open work orders available for the search criteria specified, based on the selection of display option "By Status" or "By Event". All shop work orders that are in "Draft", Fresh", "Planned", "In-progress" or "Completed" status are displayed. The details of the SWO are displayed in the tabs in the right pane.

By Status:

A parent node "Shop Work Order" is displayed below which all the shop work orders are displayed based on their status, under the following folders:

- ▶ Pending Initial Workscoping: All the work orders in "Draft" status and work orders in "Fresh" status with no tasks are displayed under this node.
- ▶ Pending Estimates: All work orders which have 'Estimation Status' as either "Pending Estimates", "Pending Confirmation" or "Re-estimates Required" along with 'Work Order Status' as "Fresh", "Planned", "In-Progress" or "Completed", are displayed under this node.
- ▶ Pending Release: The system displays all work orders which have 'Estimation Status' as "Confirmed Estimates", "Not Required" or "Released Estimates" and 'Task Status' as "Fresh".

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 Released: All the work orders which have 'Estimation Status' as "Confirmed Estimates", "Not Required" or "Released Estimates" and 'Task Status' as "Planned" or "In-Progress", "Completed" or "Closed", are displayed here.

The tree structure when the work orders are displayed on selecting "By Status", is as follows:

Shop Work Order

- Pending Initial Workscoping

- Part # :: Serial # :: Component # :: Part Desc.

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

- + Pending Estimates
- + Pending Release
- + Released
- By Event:

On selecting "By Event", the tree displays all the work orders and their child work orders at different levels, establishing the parent-child relationship. If there is a break-up in the

hierarchical chain of the work orders, the symbol '1' or '1' symbol is displayed in the tree, to denote that parent work order or a child work order is not displayed, respectively. They may not be displayed either because of the search condition or because of the login user not having security access to view the work order. The tree structure is as follows:

Shop Work Order

- Event #1

- SWO # :: Part # :: Serial # :: Component # :: Part Desc.

- + Event #2
- + Event #3

When you click the SWO node in the tree, the work order details pertaining to the SWO are displayed in the right pane and the tree changes automatically to the "Work Order Tasks" tree displaying task(s) pertaining to the SWO.

- Note: In the tree structure, the system displays "Mfr. Part # Mfr. #" combination, if the parameter "Enable Manufacturer Part # control in transaction" under the Category 'Manufacturer Part #' is set as "Yes" in the "Set Inventory Process Parameters" activity of the "Logistics Common Master" business component. If the parameter is set as "No", the system displays "Part #".
- If you do not have access to any of the work centers for which shop work order is created, those work orders will not be listed in the tree.

Work Order Tasks tree:

This tree is displayed automatically, when a work order is selected in the "Work Order" tree. All the tasks in the selected SWO are displayed here. If the parent work order has one or more child work orders, all the child work orders are listed under the parent work order. The system displays only those tasks which have WBC code for which the process parameter 'Workscoping Element?' is set as "Yes". *See Figure 3.4.*

Tree Search:

You can perform various operations like expanding nodes in the tree, collapsing the nodes and others search operations in the tree structure, using various icons displayed in the left pane. These icons are explained in the table below:

lcons	Description
	'Expand All' – Expands all the nodes available in the tree up to leaf level.
	'Collapse All' – Collapses all the nodes available in the tree up to root level.
Search - Filter ×	'Search' – Retrieves the records corresponding to the search item specified.
	'Filter' – Filters only the record matching the search item specified.
	'Search Options' – Displays a dialog box where you can specify the level at which you wish to perform the search. The various search options are:
	Search - The values displayed in this drop-down list box are 'Starts With', 'Ends With' and 'Any Match'.
	Level - The values displayed in this drop-down list box are 'Leaf' and 'All'.
	Radio buttons - You can select 'Next' , 'Previous' or 'All'

★ 📋 🛛 Plan Work Order II ≭ 🖶 🗗 ← ? 🗔 🗖 🖽 rch Crite Search On Shop Work Order # Get CWO-008722-2015 By Status By Event Work Order Work Order Tasks Due List Order Details Order Execution Details Part Disposition & Movement Details Reference Details Contract Terms & Conditions Removal & Warranty Details 🗄 🗉 🗷 Search - Filter 🛛 🗙 🔎 🌱 🔎 SWO # CWC T CWO-008722-2015 Order Description TEST Order Status In-Progress 🖃 😋 CWO-008722-2015 Job Type Component 🔻 Primary Work Center YUL-100-01 Event # CWO-008722-2015 🖻 📥 Routine Tasks - Main Core Details -🗄 😋 Fresh 📃 60-00 :: 3-60-78 :: Prop Check 3 :: Part # / Serial # 👂 285T0607-9:81205 Se SL1182107 Component # C003413-2015 Main Core Status Not Applicable Mult . No Stock Status Aveos Owned • PROPELLER ASSEMBLY Operator # 03 Non-Routines Workscoping Details The details of work order < Action on Revision • tatus Initial selected in the work + Important Dates ents Work order task tree is order tree are transferred + Links displayed when you to the right pane ode INSPECTION Work Requested select a work order in work order tree Filter Criteria Work scope Items Additional Items O Detailed Items + Additional Search Criteria - Task Details Ŧ All # 🗇 M S EF *ES TS* # Task # 🔎 Task Description ATA # 🔎 Exec. Action Eng. Instructions 1 🖹 N 🕶 N 🕶 I 🕶 PE FR 3 3-60-78 Prop Check 3 60-00 Execute N V N V I V PE FR 2 4 3-60-79 Prop Check 4 60-00 Execute 🖹 N 🕶 N 🕶 I 🕶 PE 5 3-60-84 Prop Check 1 60-00 Execute 3 FR N V N V I V PE FR 6 3-60-85 4 Prop Check 2 60-00 Execute ~ 5 TP 7 NST-003247-2015 NST 00-00 Execute TEST ¥. □ N ¥ N ¥ I ¥ PE IP 8 NST-003248-2015 ✓ TEST 6 NST 00-00 Execute 7 🗆 N 🕶 N 🕶 I 🕶 < > Reschedule Reschedule From Adjust With PDD Ē Release For Execution Cancellation Comments Start Clock Start Date 2016-26-05 15:46:56 Print Task Card(s) Update Work Order Cancel Work Order Print Sel. Task Card(s) End Clock Start by DMUSER

Figure 3.4 Plan Work Order – Work Order task tree

The tree displays 'Work Order #' as the parent node and the first level nodes such as "Routine Tasks", "Life Limited Parts", "Repair Units", "Non-Routines" and "Eng. Docs". The task statuses are displayed as child nodes under each first level node.

The tree structure is as follows:

Work Order #

- Routine Tasks

- Draft

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- Fresh

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- Planned

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- In-Progress

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

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- Completed

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- Pre-Closed

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- Closed

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- Cancelled

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- Ext. Routed

ATA # :: Task # :: Task Desc. :: Part # :: Serial # :: Work Center # :: Part Desc.

- + Life Limited Parts
- + Repair Units
- + Non-Routines
- + Eng.Docs

When a work order displayed in the tree is cancelled, it is not displayed when you click the "Work Order" tree. When a new work order is created without going through the search criteria, the "Work Order Task" tree is highlighted with the newly created work order-task information. Now, when you click on the "Work Order" tree, the newly created work order # will be displayed.

Due List tree:

For the component # in the main core section, when you click this tree, the system displays the tree structure with first level node as "Part # :: Serial # :: Rem. Times" in the expanded state. The Tasks, Eng. Docs, Discrepancies, Applicable Tasks, Unprocessed Tasks and Sub-Assemblies are displayed as second level nodes. Only those tasks with Job Type "On-wing" or "Off-wing" are displayed in the Sch. Tasks folder of "Due List" tree. *See Figure 3.5.*



Figure 3.5 Plan work order – Due list tree

- Applicable tasks: This folder will contain the list of all the Active tasks that are effective for the specific Part # available in the "Order Details" Tab and the tasks that have WBS Codes for which process parameter 'Workscoping Element' is set as "Yes" in the "Common Master" business component. When a due list is retrieved for a prime part, the repair scheme associated with the prime part is also retrieved.
- Forecasted tasks: The forecasted tasks are the tasks that are retrieved from the pending tray, if maintenance program is available for the task.

The tree structure is as follows:

Part # :: Serial # :: Part Desc. :: Rem. Times

- Sch. Tasks :: Rem. Times

[NP] ATA # :: Task # :: Task Desc. :: Rem. Times

- Eng. Docs
- Discrepancies :: Rem. Times
- Applicable Tasks
- Unprocessed Tasks

ATA # :: Task # :: Task Desc. :: Part # :: Part Desc.

- Sub Assemblies

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Part # :: Serial # :: Rem. Times

- Tasks :: Rem. Times
- Eng. Docs :: Rem. Times
- Discrepancies :: Rem. Times
- Applicable Tasks
- Spare Parts

Spare Parts

Display of Unprocessed Tasks:

The system displays all the tasks available in the parent shop work orders, with 'Separation Rule' as "As Required" and satisfying the following conditions under the "Unprocessed Tasks" folder:

- Displays the tasks with Part # / Mfr. Part # Mfr. # same as the Main Core Part # / Main Core Mfr. Part # Mfr. #of the current SWO.
- Displays the tasks with Part # / Mfr. Part # Mfr. # available as an alternate Part # to the Main Core Part # / Main Core Mfr. Part # - Mfr. # of the current SWO, if
 - Main Core Part # does not exist in any 'Active' Master Sequence # in the "Maintenance task" business component.
 - Main Core Part # exist in an 'Active' Master Sequence #, and if the Part # of the task also exists in the same Master Sequence #.

The order in which the tasks are displayed in the "Due List" tree, is based on the Work Breakdown Structure (WBS) Code definition.

- ➤ All the tasks which have 'Workscoping Element' set as "Yes" and 'WBS Level' as "Root" are displayed on expanding the 'Applicable Tasks' folder.
- ➤ All the tasks that have WBS Code for which 'Workscoping Element' is set as "Yes" and 'WBS level' as "Intermediate' are displayed on expanding the Root level tasks.
- ▶ If the root level tasks have child tasks, the child tasks are displayed in the Block-Base hierarchy.

The system displays the tasks that are due from current date to the target date i.e. current date + Planning Horizon, if the 'Planning Horizon (Days)' is defined for the entity 'SWO - All Order Types', in the "Common Master" business component. If the planning horizon is not defined, the system displays all the tasks due for the next 7 days.

- Note: Either Part # or Mfr. Part # / Mfr. # and Serial # must be available in the main core section in the "Order Details" tab, for displaying the tasks in this tree other than Job Type as "Facility". For Job Type as "Facility", Facility Object # will be available.
- The system displays "Mfr. Part # Mfr. #" combination in the tree, if the parameter "Enable Manufacturer Part # control in transaction" under the Category 'Manufacturer Part #' is set as "Yes" in the "Set Inventory Process Parameters" activity of the "Logistics Common Master" business component. If the parameter is set as "No", the system displays "Part #".



Transferring due tasks

5. Click the ^(E) icon to transfer the task details from the "Due List" tree to the "Task Details" multiline.

When you select the checkbox for a node in the "Due List" tree and click the 'Transfer' icon, the system transfers the selected task(s) from the tree to the "Task Details" multiline for creating/updating a work order.

Tabs

- Select the Order Details tab to record the details of the work order.
- Select the <u>Order Execution Details</u> tab to record details regarding the execution of the work order.
- Select the <u>Part Disposition & Movement Details</u> tab to record disposition and movement details of the part.
- Select the <u>Reference Details</u> tab to track and view customer order and other details of the work order.
- Select the <u>Contract Terms & Conditions</u> tab to retrieve the contract information of the work order.
- Select the <u>Removal & Warranty Details</u> tab to view details regarding removal of the part, warranty, and other ownership details of the work order.

In the Filter Criteria group box as shown below in Figure 3.6,

Filter Criteria		
Work scope Items	Additional Items Detailed Items	
Additional Search Criteria —		
Maint. Item All Task Search by Include Child? No	ks Select the radio buttons to retrieve task details in multiline	Costing Details Execution Details Additional Details
	Get Details	Rem. Times

Figure 3.6 Plan work order – filter criteria

- 1. Select one of the following radio buttons to retrieve task details in the multiline:
 - Work scope Items Select this radio button to display all the tasks including nonstandard tasks/non-routines that have WBS code for which 'Workscoping Element' is set as "Yes" in the "Common Master" business component and at root level if there are multiple workscoping tasks with a hierarchy defined.
 - Additional Items Select this radio button to display all the non-routine tasks and discrepancies.
 - Detailed Items Select this radio button to display all the tasks (including the non-routines/non-standard tasks) that have WBS code for which the process parameter 'Execution Operations?' is set as "Yes".
- 2. Select the **Maint. Item** as 'All Tasks', 'Routine Tasks', 'Life Limited Parts', 'Repair Units', 'Non-Routines' or 'Eng. Docs', to retrieve the corresponding task details in the multiline.
- 3. Select **Include Child?** as 'Yes' or 'No' to specify whether to display child work order tasks in the multiline.
- 4. Click the Get Details pushbutton to retrieve the task details in the multiline.

In the **Task Details** multiline, you can either modify the task details retrieved or add new tasks to the work order.

- 5. Enter the sequence in which the task must be executed in the shop work order, in the **'#'** field.
- 6. Enter the **Task #** and the **ATA #** to which the task belongs.
- Select the Exec. Action to be performed on the task, as 'Execute', 'Re-Execute', 'Cancel', 'Pre-Close', 'Already Complied', 'Not Applicable', 'Previously Complied' or 'Duplicate compliance'.
- 8. Enter the **Part #** / **Mfr. Part # Mfr. #** and **Serial #** of the part against which the task is executed.
 - Note: The system displays the "Mfr. Part #" and "Mfr. #" fields, and hides the "Part #" field, if the parameter "Enable Manufacturer Part # control in transaction" under the Category 'Manufacturer Part #' is set as "Yes" in the "Set Inventory Process Parameters" activity of the "Logistics Common Master" business component. If the parameter is set as "No", the system displays only the "Part #".
- 9. Enter the Position Code, Level Code, NHA Mfr. Part #, NHA Part Mfr. #, NHA Part # of the sub-assembly, if Part / Mfr. Part # - Mfr. # is different from the Main Core Part # / Main Core Mfr. Part # - Mfr. #.
 - 1. Use the **Separation Rule** drop-down list box to specify the basis of movement of tasks from parent work order to child work order during removal of a part. You can select from 'By Part # Serial #', 'By NHA Part # Serial #' and 'As Required'.
- 10. In the **Show** field above the multiline, check one or more of the check boxes **Costing Details, Execution Details, Additional Details** and/or **Rem. Times**, to selectively display the following details in the multiline. *See Figure 3.6.*
 - Costing Details Expense Type of the work order, CAPEX # applicable to the work order.
 - Execution Details Est. Elapsed Time, Time UOM, Exec. Category, Exec. Priority, Exec. Phase, Plan Start Date / Time, Plan End Date / Time, Est. Man Hrs.
 - Additional Details Under Warranty?, Repair Basis, Disposition of the part, WBS (Work Breakdown Structure) Code.
 - Remaining Time details Rem. Times, Interval, % Used.
- 11. Click the **Re-Generate Seq #** pushbutton below the multiline, to regenerate the sequence number of the task based on the 'Re-Sequence Multiplication Factor' defined in the **Set Options** activity of the **Maintenance Task** business component.
 - Note: If the multiplication factor is not defined, the system considers the multiplication factor as '100' to regenerate the sequence number. The "Re-Generate Seq #" pushbutton will be available, only if the "Detailed Items" radio button is selected in the 'Filter Criteria'.
- 12. Click the **Reschedule** pushbutton below the multiline to reschedule the work order.
- 13. Check the **Adjust With PDD** box to adjust the planned end date of the work order with the promised delivery date.
- 14. Enter the date from which the rescheduling should be done in the **Reschedule From** field.
- 15. Check the **Release for Execution** box to release the work order for execution.
- 16. Click the **Update Work Order** pushbutton to update the task details in the work order.

To cancel work order

- 17. Enter the **Cancellation Comments** related to the work order.
- 18. Click the Cancel Work Order pushbutton to cancel the work order.
 - Note: Only those work orders which are in "Draft", "Fresh" or "Planned" status can be cancelled. You cannot cancel the work order, if the Purchase Order referred for the work order is in "Open" status.

Work Scope Definition

- 1. Click the **Start Clock** pushbutton to start the clock for workscope definition.
 - Note: When you click the "Update Work Order" pushbutton, ensure that the clock is started, if the process parameter "Task clocking required for workscope definition?" is set as "Auto or Manual" for the SWO Type. The start of the clock is identified, if the "Start Date" and "Start by" fields are displayed.
- 2. Click the End Clock pushbutton to end the clock for workscope definition.

To print package

- 1. Click the **Print Task Card(s)** pushbutton to print all the Task Cards of that package.
- 2. Click the **Print Sel. Task Card(s)** pushbutton to print the selected Task Cards of that package through ePubs interface.

Important Dates

In the Important Dates group box, the system displays Cust. Requested Date, Prom. Del. Date, Planned End Date, Target Date and Proj. Completion Date. *See Figure 3.7.*

Important Dates		
Cust. Requested Date		
Prom. Del. Date		
Target Date	2015-20-09 15:47:57 🛅	
Planned End Date		
Proj. Completion Date	2015-20-09 15:47:57 🛅	

Figure 3.7 Important dates displayed in the left pane

Links

To proceed further,

- Select the Edit Work Estimates link to estimate, update and confirm the part and resource requirements for a shop work order.
- Select the <u>Update / Split Main Cores</u> link to attach sub parts / serial numbers to the main core.
- Select the <u>Record Shop Execution Details</u> link to record shop execution details.
- Select the **Print Routing Slip** link to print the routing slip which is a document that contains the movement details of a component or part.

- Select the Record Additional Charges on Order link to record / modify task-level charges.
- Select the Generate Sub-Work Order link to generate sub-work order.
- Select the Manufacturing Data link to view/record latest manufacturing information on the part
- Select the **Record Work Hold** link to put documents and tasks on hold for the part.
- Select the Record Part # / Serial # Change link to record the part # / serial # change details.
- Select the Route Unserviceable Components / Parts link to route the unserviceable components or parts to the warehouse.
- Select the **Work Monitoring & Control** link to plan work for an employee.
- Select the <u>Route Parts</u> link to route parts from one work center to another work center or repair agency.
- Select the Author Repair Procedure link to modify/update non-standard task effective for the part
- Select the Manage Parts under MRO Warranty link to record details of parts covered by MRO warranty.
- Select the Generate Advanced WIP Document link to generate Advanced WIP document for the part.
- Select the Initialize Component Assly. link to update the configuration details for an aircraft or component.
- ▶ Select the Initialize Parameter Values link to update and re-initialize initialized parameter values of aircraft or component.
- Select the Initialize Maint. Prog. & Update Compliance link to initialize the maintenance program for aircraft or component and update the actual compliance details of the maintenance task executed.
- Select the Track Compliance History link to view the details of the compliance of the task for an aircraft or a component.
- > Select the Upload File link to upload the documents.
- Select the **Track Response** link to record details of any request raised by an employee and track the response to the requests.
- Select the View Task Details link to view the details of the selected task.
- Select the **View Documents** link to view the attached documents.
- ▶ Select the View Maintenance Log link in the left pane to view the maintenance log details for the aircraft or component.
- Select the View MOD Details link to open the Part Serial Mod popup.

Recording order details

You can record the details of the shop work order such as shop work order number, order description, job type, etc. You can also specify the main core details such as part number, manufacturer part number, manufacturer number, serial number, stock status of the main core, and the workscoping details.

1. The **Order Details** tab appears by default, on launch of the **Plan Work Order** page. *See Figure 3.8.*

← 0	rder Details	Order Execution Details	Part Disposition & M	ovement Details	Reference Details	Contract Terms & Conditions
	SWO #	CWC T CWO-008722-2015	Order Description	TEST	Order Stat	us In-Progress
	Job Type	Component 💌	Primary Work Center #	YUL-100-01	 Event 	# CWO-008722-2015
- Ma	ain Core Detai	ils				
Pa	art # / Serial #	2 85T0607-9:81205	Serial # 👂	SL1182107		
	Component #	# C003413-2015	Multiple Cores?	No	Main Core Stat	us Not Applicable
St	tock Status A	veos Owned	▼ Part Desc. P	ROPELLER ASSEMBLY	Operator	# 03
- Wa	orkscoping De	etails Main core det us Initial the shop work	ails of order vision # 0)	Action on	Revision 🛛
	Commen	ts	Shop visit Count	L		
- Re	pair Details -					
Repair	Process Code	INSPECTION	▼ Repair Classifi	cation	▼ Work Reque	sted

Figure 3.8 Recording order details

- 2. Specify the **SWO #** indicating the SWO Type against which the shop work order has to be created, and enter the shop work Order Description.
- 3. Select the **Job Type** of the shop work order as 'Engine', 'Component', 'Piece Part', 'Make', 'Facility', 'Project' or 'Miscellaneous'.
- 4. Specify the **Primary Work Center #** that is responsible for shop work execution.
- 5. Enter the **Event #** identified for grouping the shop work order.

In the Main Core Details group box,

- 6. Enter the Part # / Mfr. Part # Mfr. # and Serial # of the main core part.
- 7. The **Multiple Cores?** drop-down list box lists values 'Yes' or 'No' to indicate whether multiple cores are associated to the same work order or not.
- 8. Select the Stock Status of the main core.

In the Workscoping Details group box,

- Specify the Workscoping Status of the work order as 'Initial', 'Final' or 'Revised'.
- 10. Use the **Action on Revision** drop-down list box to specify the action to be performed on the task. You can select one of the following options:
 - Upgrade Select this option if you wish to upgrade the existing task to a higher level workscoping task, to perform additional work.
 - ➤ Addition Select this option if you wish to add more workscoping tasks to the already existing workscoping tasks to perform a repair.
- 11. Enter any additional **Comments** related to workscoping.
- 12. Specify the **Repair Process Code** that defines various repair processes that are performed on a component.
- 13. Specify the **Repair Classification** in order to differentiate the tasks which are over and above the contract (COA Contract Over and Above) between the operator and the MRO.
- 14. Enter the type of the Work Requested.
Recording order execution details

You can record the execution details of the work order, such as order priority, category, plan start / end date and time of the work order, repair classification to which the work belongs, order class i.e. whether you wish to create / update internal or external work orders. You can only update the existing work order if the 'Order Class' is "External". You can also specify whether the work order is of expense type "Capital" or "Revenue".

1. Select the Order Execution Details tab in the Plan Work Order page. See Figure

	3.9.					
+	Order Details 0	order Execution Detai	s Part Disposition &	. Movement Details	Reference Details Co	ontract Terms & Condition 🔶
(Execution Details –					
	Order Category	1-Repair 💌	Order Priority	NRM	User Status	•
	CoM Reqd?	No	Plan Start Date / Time	2015-18-09 15:53: 🛅	Plan End Date / Time	2015-20-09 15:47: 🛅
	Order Class	Internal 💌				
	Accounting Details			Spe	ecify Plan Start Date /	
	Expense Type	Revenue 🔻	CAPEX # 👂	Tim	e and Plan End Date	
				/ 11	me of work order	

Figure 3.9 Recording order execution details

- 2. Select Order Category and Order Priority for the shop work order.
- 3. Enter Plan Start Date / Time and Plan End Date / Time of the work order.
- 4. Select **Expense Type** of the work order as 'Revenue' or 'Capital' and enter the **CAPEX #** applicable to the work order.
- 5. Enter New Part # available in shop work order, if 'Job Type' is "Piece Part".

Recording part disposition and movement details

This tab allows you to record disposition and movement details of the main core. You can specify initial and final disposition details indicating the type of the work to be performed on the part removed, whether any fault is found during inspection of the part, current location of the part and the location where the main core must be returned after the work is completed.

1. Select the **Part Disposition & Movement Details** tab in the **Plan Work Order** page. *See Figure 3.10.*



Order Details	Order Execu	ition Details	Part Disposition 8	k Movement Details	Reference Details	Contract Terms & Condit 🔶
Part Disposition	ı ———		- Core Movement	Details		
Initial Repair Disp.	1-REPAIR		Current Loc.			
Final Rep. Disp.	1-REPAIR		Next Move	Return to Specific Warehou	is 0123	
Disposition Remarks	ST	No Fault Fo	und (NFF) –	Return to Specific Warehou	use	▼ 0123
NFF?	No	Indicates wh	hether fault is			
BER?		the part	j inspection of			
Exchange Infor	mation ——					
Exchange Or	der #		Exchange	Туре	Donor / Reci	pient Flag
Material Requ	est #		Core Due S	tatus	Rea	ason Code
(

Figure 3.10 Recording part disposition and movement details

- 2. Use the **Final Rep. Disp.?** drop-down list box to specify the type of the work i.e. repair, replace or exchange, to be performed on the main core, during the final stage (for example, after work order generation).
- 3. Use the **NFF?** drop-down list box and select 'Yes' or 'No' to specify whether any fault is found during inspection of the part.
- 4. Use the **Final Movement** drop-down list box to specify the location where the main core must be returned after the entire work is completed, and enter the **Movement Remarks**.

In the Exchange Information group box, the system displays Exchange Order #, Exchange Type, Donor / Recipient Flag, Material Request #, Core Due Status and Reason Code.

Recording reference details

You can track and view the customer order details, execution reference details, parent work order details, work requested details such as discrepancy references, job card references, etc.

1. Select the **Reference Details** tab in the **Plan Work Order** page. *See Figure 3.11*.

+	Order Details	Order	Execution Details	Part Disp	osition & Movement Details	Reference Details	Contract Terms & Conditions
(- Customer Order	Details					
	Customer Order # / R	ev # 👂	CO-008068-2016	0	Customer # 👂 4000	06 Order	Description
(A/C Execution D	etails —					
	Exec. R	ef#		,	Aircraft Reg. # 1182	Worl	k Center #
(Parent Work Ord	der Deta	ils				
	Parent SW	0 #			Root SWO #		
(- Work Order Sou	rce Deta	ils				
	Source Parent	t SWO #			Source Root SWO #		
	Source Cust. Order #	/Rev #		1	Customer #	Orig.	Contract #
(- Work Requested	d Details					
	Discrepancy Referen	nces		Job Ca	ard References	Mod. Ir	nstructions
	Cust. Work Reques	sted					
	<						>



- 2. Enter the Customer Order # / Rev # of the customer order.
- 3. Enter the **Customer #** for whom the customer order is created.

The system displays the following details:

- Exe. Ref #, Aircraft Reg. # and Work Center # in A/C Execution Details group box.
- ▶ Parent SWO # and Root SWO # in Parent Work Order Details group box.
- Source Parent SWO #, Source Root SWO #, Source Cust. Order # / Rev #, Customer # and Contract # in Work Order Source Details group box.
- Discrepancy References, Job Card References, Mod. Instructions and Cust. Work Requested in Work Requested Details group box.

Viewing contract terms and conditions

You can view the contract details of the work order in this tab.

1. Select the **Contract Terms & Conditions** tab in the **Plan Work Order** page. *See Figure 3.12*.

ecution Details	Part Disposition	n & Movement I	Details	Reference	te Details	Contrac	t Terms 8	Conditions	Removal &	Warranty Dette
Contract Deta	ils —									
🖣 🖣 [No rec	ords to display]	нытт		m a x		₽ ≥ 0	All		T	
# Previous	row set [Page Up]	Descriptio	n			Value		Auto Hold?		Hol
				Found	no rows to	display!!!				

Figure 3.12 Viewing contract terms and conditions

The system retrieves and displays the following contract information from the Sale Contract – Services business component:

- Element which indicates the operational elements defined in the contract.
- The **Description** of the element.
- The permitted **Value** of the operational parameter.
- Auto Hold? which indicates whether the task is put on hold.
- Hold Codes for the work delays that are permitted.

Recording removal and warranty details

This tab allows you to view the part removal details, supplier and customer warranty details, and the ownership details of the work order.

1. Select the **Removal & Warranty Details** tab in the **Plan Work Order** page. *See Figure 3.13*.

 ecution Details 	Part Disposition & Movement Details	Reference Details	Contract Terms & Condition	s Removal & Warranty Detai
- Removal Deta	ils			
Rem. From A/C Reg	g # / MSN # 1182 PRe	moved from Part # / Serial #	۹	Reason for Removal REMOVE
Removal D	Date & Time 2015-07-09 00:01	SOS Disposition	B Initia	al Discrepancy Count 0
Supplier Warr	anty Details			
Under Warr	anty? No Varrant	y Agreement # / Supplier #		Warranty Ref. #
Customer Wa	rranty Details			
Warranty Requ	uested? No 💌	Warranty Resolution		Select the Warranty
- Ownership De	tails			"Rejected" or "Partial"
Ownership / Owning	g Agency # Owned	Exchange Contract?		PBH Coverage
(

Figure 3.13 Recording removal and warranty details

- In the Removal Details group box, enter the Rem. From A/C Reg # / MSN #, Removed from Part # / Serial #, Reason for Removal and Removal Date & Time.
- 3. In the **Supplier Warranty Details** group box, select 'Yes' or 'No' in the **Under Warranty**? drop-down list box to indicate whether the main core is under warranty.
- 4. In the **Customer Warranty Details** group box, select the **Warranty Resolution** as 'Accepted', 'Rejected', or 'Partial' to specify the decision of the Customer Service Manager (CSM) regarding the status of the warranty requested for the main core.
- 5. In the **Ownership Details** group box, the system displays Ownership / Owning Agency #, Exchange Contract? and PBH Coverage.

ramco

3.3 Updating / splitting cores and coverage

This activity enables you to attach additional parts / serial numbers to the main core. Also you can split work orders created in the Plan Work Order page based on their quantity. A new SWO # will be generated for the split quantity in the multiline as the main core quantity. You will be able to view / update the details of the new work order in the Plan Work Order page.

You have the option to generate a single work order or multiple work orders against each record with the help of the "Consolidated" option in the multiline.

You can also add to or remove material requests from the shop work order of Job Type 'Make'. Material requests already assigned to the shop work order can be updated due to changed demand. Further, the core and coverage details impacted by the shop work order are updated in the material requests.

1. Select the **Update / Split Cores and Coverage** link in the **Plan Work Order** page of the **Shop Work Order** business component. The **Update / Split Main Cores** page appears. *See Figure 3.14.*

\star 🗎 Update	Split Main Co	ores and Covera	ge Information					Ramco Role - RAM	co ou 🕫 🖶	⇒ ← ? [
SWO Details	SWO # Customer # Prom. Del. Date	CWO	CWO-009351-2016	C Proj.	Order Description Make Sustomer Order # Completion Date 18/10/3	2016 12:14:28		Qt Cust. Requested Dal Target Dal	/. 1.00 re 18/10/2016 12:14:28	3
Opdate Option Associated Main	ores		MR Coverage	(CASSOCIATE Multiple Core	es 🔘 Split V	Vork Order			
•• • 1 -1	1 > >> +	- 0 % T	Tx				2 X C	III AI	Ŧ	۶
# 🗉 Part # 🖇	Mfg. Lot #	Mfg. Serial #	On WO Qty.	Disposition	BER?	Final Movement Type	Final Movement Location	Priority Sequence #	Material Request # 🔎	
1 🗇 J-3609		mfr-100	1.00	1-REPAIR	v	~				
2					*	~				
<	Specif the wo	fy the quant ork order wh ed to be rep	ity in hich is paired							>
					Update Multi Cores &	Coverage				
Plan Work Order			F	Record Shop Execution De	etails		Print Routing Slip			

Figure 3.14 Updating / splitting main cores

In the Update Option group box,

- 2. Select the **MR Coverage** drop-down list box to display MR coverage details associated with the shop work order.
 - Note: This radio button is always enabled for shop work orders, if Job Type is 'Make'.

These columns are available in the "Associated Main Cores" multiline, if MR Coverage radio button is selected by users

- Part #
- Mfr. Serial #.
- Mfr. Lot #.
- WO Quantity
- ▶ Disposition
- ► BER?
- Final Movement Type
- Final Movement Location

- Material Request #
- Priority Seq #
- MR Quantity
- Alternates Allowed?
- Covered Quantity
- Pending Quantity
- ▶ UOM
- Last Modified by
- Last Modified Date
- 3. Select the **Associate Multiple Cores** radio button to attach multiple cores to the main core.

Or

- 4. Select the **Split Work Order** radio button to split work order based on its quantity.
 - Note: The system does not allow deletion of records for a part in the multiline if:
 - a. "Split Work Order" radio button is selected.
 - b. The work order has already been split.

In the Associated Main Cores multiline,

- 5. Use the **Final Movement Type** drop-down list box to select the final movement type for the part.
- 6. Use the **Final Movement Location** drop-down list box to indicate the ultimate destination for the core part upon completion of the shop work order. The final movement location may be Supplier #, Warehouse #, Work Center #, Customer or Supplier # depending on the final movement type.
- 7. Enter Material Request # assigned to the shop work order.
- 8. Enter **Priority Seq. #** for fulfilling the material request.
- 9. Enter **Covered Quantity** to indicate the quantity of the requested part that has been assigned to the work order.
- 10. Enter **Pending Quantity** to indicate the quantity of the requested part that has not yet been assigned to any work order.
- 11. Enter **UOM** for the requested part.
- 12. Enter the **Part #** / **Mfr. Part #**, **Mfr. #**, **Serial #**, **Lot #** and other details for which you wish to associate main cores or split work order
- 13. Enter any additional information in the **Remarks** field if the "Split Work Order" radio button is selected.
- 14. Click the **Update Multiple Cores & Coverage** pushbutton to associate multiple cores or to split work order based on quantity.
 - Note: For a shop work order which requires an exchange of its main core, with an exchange order initiated, the system does not allow modification of the associated main cores and the quantity defined for the associated main cores.



To provide further details,

- Select the <u>Plan Work Order</u> link to create or modify the shop work order.
- Select the <u>Record Shop Execution Details</u> link to execute shop work orders.
- Select the **Print Routing Slip** to print the routing slip, which is a document that contains the movement details of a component or part.

3.4 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.

This activity also allows you to estimate the charge details 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.

3.4.1 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 3.15*.

View Associated Doc. Attachments

🗐 Fq	lit Work Es	timates					44	4 1 2	3 4 5	>>> 1 /395	24 등 다	← ?	\$ P
Work Ord	er List				R	tef. Doc #	LP-000002-20	016					
\Xi LP-00	0002-2016::YUL	L-100-05::P	ending Estir	nates	Order D	escription			Pri	mary Work Center #	YUL-100-05		
		\wedge			 Flight Details 								
					Air	craft Reg # Js-101				Aircraft Model #	A320-211		
					Customer Order Details								
	Work Order list tree structure					o. 1	Order Description						
	structure				Custon				Urder Description				
	structure					Customer #			Pro	mised Delivery Date			
Task Sun © Work S • Task St	nmary Details cope Items ummary Detai	Part Detaile	Requireme ed Items	Resource Require	rements Charge Details								
Task Sun O Work S Task Su	nmary Details icope Items ummary Detai 1 - 5 / 5	Part Octaile ils + ++	Requireme ed Items	Resource Require	ements Charge Details		۲ LL S X	区 首 x* C	1 1 1	All	•		۶
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Figure 3.15 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 ۲ 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.
- ۲ 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 <u>Task Summary Details</u> tab to confirm the estimates of the tasks in the work order.
- Select the <u>Part Requirements</u> tab to estimate part requirements for the execution of tasks within the work order.
- Select the <u>Resource Requirements</u> tab to estimate resource requirements for the execution of tasks within the work order.
- Select the <u>Charge Details</u> 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 3.16*.

Ð	Edi	it Work Estimate	s					44	4 1	2	3 4	4 5	• •	1	/395	7\$	ē	€ 3	L¢.	ĸ
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) Tasl	k Su	Task S	ummar	y																
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#		Task #	#	Task Description	exec. Status	Estimation Status			Estimat	ion Ren	iarks			E	st, Keqa	ror		Part	s estimate	a.
1		NST-003881-2016	1	test description	Planned	Pending Estimates												No		
2		NST-003882-2016	2	Describing	Planned	Pending Estimates												No		
3		NST-003883-2016	3	Addes	Planned	Pending Estimates		Ente	r the	estir	nati	on						No		
4		NST-003884-2016	4	Dent	Planned	Pending Estimates		rome	arke									No		
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Figure 3.16 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 part / resource **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.

- 9. 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 must be generated, is 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.
 - The process parameter 'Prevent Material Request?' for the Entity Type "Hold Code" is not other than "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 estimate the part requirements.

1. Select the **Part Requirements** tab in the **Edit Work Estimates** main page. *See Figure 3.17.*



Task Summary Details	Part Requirements	Resource Requirements	Charge Details					
Display Filters								
	Task # / Description				Part # / Mfr. Part #			
	Search by	T		•	Part Description			
				Sear	ch			
						Currency (CAD	
- Part Requirements								
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# 🖹 Task # 🔎	# Task De	Click this pu	shbutton to		Estimation Status	Est. Baseline #	Estimation Remarks	
1		Click this pu		ilimo d				
		retrieve the	actual parts ut	liized				
		for the exec	ution of the tas	sk				
•		-						۱.
	Got Work Actuals				Ectimate Parts			
	Get WORK Actuals				Estimate Parts			

Figure 3.17 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.

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	3.18.				
Task Summary Details Part Requirements Resource	Requirements Charge Details				
Display Filters					
Task # / Description		Resource #	T		
Search by	v				
		Search			
Resource Requirements					
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# 🗉 Task # 👂 # Task Description	Exec. Status	Estimation Status	Est. Baseline #	Estimation Remarks	Res
1 🗆					
	Click this pushbutton to retrieve)			
4	the actual resources utilized for				•
	the execution of the task				
Get Work Actuals		Estimate Resources			

Figure 3.18 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 charges 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 3.19.*

Task Summary Details	Part Requirements	Resource Requirements	Charge Details						
 Display Filters 									
Task # / Descr	ription			Search by	T	•			
				Search					
- Charge Details									
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# 🗉 Task # 🔎	# Ta	sk Description	Exec. Status	Estimation State	s	Est. Baseline #	Estimation Re	marks	Cha
1									
	Click t	his pushbutton to							
	estima	te the charges fo	r the						÷.
	part / r	esource estimate	s.	Estimata Charge Detaile	1				
				Esumate citalge Details					



- 2. Enter the search criteria in the **Display Filters** group box and click the **Search** pushbutton to retrieve the charge details in the multiline.
- 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 TCD Amount, TCD Currency and Estimation Remarks.
- 7. Click the **Estimate Charge Details** pushbutton to estimate the charges for the part / resource estimates.

3.5 Recording shop execution details

Shop work order can be created under different scenarios, e.g. when creating customer order, while routing the parts, etc. This is a one-stop screen for executing shop work orders, which includes all execution level operations, recording timesheets for the execution of the tasks, booking in-direct hours, signing-off tasks, recording part receipt details and holding / releasing a task.

You can accomplish the following in this activity:

- Record work actuals.
- Record observations and discrepancies that are found during execution of tasks.
- Attach / remove / replace components and spare parts with respect to the main core component.
- Define workscope for the execution of tasks in a shop work order.
- Raise material requests for the tasks and discrepancies.
- Edit additional information of work order.
- Edit additional information of task / discrepancy.
- Request part serial / lot details
- Report resource actuals.

3.5.1 Recording shop execution details

You can perform all execution level operations, record timesheets for the execution of the tasks, book in-direct hours, sign-off tasks, record part receipt details and hold / release a task. You can also record observations and discrepancies that are found during execution of tasks, and attach / remove / replace components and spare parts with respect to the main core component.

You can also define workscope for the execution of tasks in a shop work order, and also raise material requests for the tasks and discrepancies.

1. Select the **Record Shop Execution Details** activity under the **Shop Work Order** business component. The **Record Shop Execution Details** page appears. *See Figure 3.20.*



Figure 3.20 Recording shop execution details

- 2. Use the **Search On** drop-down list box and select one of the options to retrieve the matching work orders. You can enter the value corresponding to the option selected.
- 3. Click the **Get** pushbutton or press the "Enter" key to retrieve the search results in different tabs.
- 4. The <u>Work Actual</u> tab appears by default, in which you can record the actual task execution details.
- 5. Select the <u>Report Findings</u> tab to record observations and discrepancies that are found during execution of tasks.
- 6. Select the <u>Disassemble & Assemble Core</u> tab to disassemble and assemble parts.
- 7. Select the <u>Initial Workscoping</u> tab to define workscope for the child work orders.
- 8. Select the Material Request tab to place material requests.

Recording work actual details

You can record the actual work execution details of the task in this tab. The details of all the tasks under any shop work order, displayed at task level or sub-task can be recorded. Using this tab, you can perform the following:

nam(



- You can record details such as hold status of the task, clock information, sign-off status of the task, start date / time and end date / time of the task.
- ▶ Perform Mechanic / Inspector / RII sign-off of the task.
- You can specify whether the task is mandatory.
- Perform timesheet booking for the execution of the tasks.
- You can book timesheet for the in-direct hours clocked by the employee.
- Acknowledge the receipt of parts for execution of the task on the received part.
- Hold the task or release the task which is held.
- 1. The Work Actual tab appears by default, on launch of the Record Shop Execution Details. *See Figure 3.21*.

★ 🔋 Record Shop Execution Deta	ils							i	i ⊈ ← ? ⊡ I
Search									
Search On Part # / Serial #				Get		Date & Time	iii		
Append	Work Actual	eport Findings	Disass	emble & Assemble Core	Initial Wo	rksconing Material Request		-	
👶 📴 🗉 Search - Filter 🗙 🔎 🌹 👧		Display by	Task	Subtask		Select radio butto	one to display		
G ShopWorkOrder	Tack Details								
CW0-000941-2012 CW0-001018-2012	- Task Dectails					task details at tas	sk level or		
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	# 🗆 M .	45 CI SS	ES	swo # 🔎	#	Clock Start Date & Time	lask Desc.	Task # 🔎	Clock End Date & Time
	1 🖹 N	н с м	PC	CWO-000289-2012	1	30-05-2016 11:45:07	INS-INIT	3-00551429	
B OWO-000386-2013	2 🖹 N	C M	NR	CWO-000290-2012	1	30-05-2016 12:07:05	INS-INIT	3-00551429	
B CWO-000327-2012	3 🗉 N 🔅	н с м	RE	CWO-000307-2012	1	30-05-2016 13:07:14	INS-INIT	3-00551429	
B CW0-001709-2012	4 E N I	I M NR	NP	OWO-000398-2013	1	27-11-2014 12:30:44	ons 23 feb	3-433-00-40-	
B CWO-004377-2012	E E N	I NC MRT	ND	CWO 006538 2013	20	04 05 2016 18:51:04	Test	CDB 000410	
😠 🧰 CWO-005679-201	G E N		ND	CIVO 000520 2012	20	16 06 2016 17:01:42	Test	CDR 000411	
	8 D N	4 NS Mod	NR	CWO-006528-2012	21	16-06-2016 17:01:42	Test	CDP-000411-	
⊕ CWO-006811-2012		4 M M	NK	OWO-000012-2011	100	01-12-2014 12:03:14	UNIT-CK	3-001/2948	
CW0-007487-2013	8								
CW0-007619-2013 CW0-007855-2013									
									•
Work actual t	ree								
						 Sign-Off Details 			
Report Resource Actu Ott dottal O						Mechanic	Inspector	Addl. Sig	In-Off
Poute Parts				Clock Off		Skill	▼ RII		
Route Parts				Parts Returne	ed?	Cor	mments		
Track Response	Reset	Pre	-Close	Complete		Sign-Off	Reject To	sk	Void
Manage Teardown Information			0.000	complete		Sign-on	Reject Ta		Volu
Record Part # / Serial # Change	In -Direct					 Receive Part 			
						Primary Work Center #	•	Ack, Rec	eint
Edit Work Estimates	In Direct Cab	-							
Update / Split Main Cores	In-Direct Cat.	v				- Hold / Release			
Plan Work Order	Start Date/Time	Ē	End D	late/Time		Hold Code	•	Comments	
Generate Sub-Work Order	Clock	On	Clo	ck Off Reset				- I Decord	Work Hold
Manage Work Assignments and Reporting						Hole	d	Release	WORKHOID
Create Eng. Service Request									
Create Eng. Service Request									
Inquire Eng. Service Request									
Edit Work Order Addl. Info.									
Fdit Task ∆ddl_Info ▼									
Message Center									
i lessage center									

Figure 3.21 Recording work actual details

The system displays a tree structure in the left pane with "Shop Work Order" as the parent node, and the "SWO #" and task / discrepancy status as the child nodes. The tree displays all the shop work orders and the associated tasks / discrepancies, based on the process parameter "Allow Task Reporting by?" set in the "Set Process Parameter" page of the "Common Master" business component, as follows:

- If the parameter "Allow Task Reporting by?" is set as "All Employee", the "Work Actual" tree displays all the shop work orders with all the tasks / discrepancies for which the employee mapped to the login user, has clock running for at least one task / discrepancy.
- ▶ If the parameter is set as "Assigned Employee", the tree displays all the shop work orders with only the tasks / discrepancies for which the employee mapped to the login

user, has clock running and only the tasks / discrepancies for which the employee is assigned.

If the process parameter 'Hierarchical display of Root, Intermediate and Leaf level tasks in Tree in RSED screen?' under the entity type 'Shop Work Order Type' for the entity 'All Work Order' is 'Not Required', the tree structure in the left pane of the 'Record Shop Execution Details' page displays only Operational tasks of retrieved shop work orders. Illustration next.

Tree Structure:

[-] Shop Work Order

[-] CWO-xxxxx-xxxx

- [-] Task
 - [-] Planned
 - [] Operational 5
 - [-] In-Progress
 - [] Operational 1
 - [] Operational 2
 - [] Operational 3
 - [-] Completed
 - [] Operational 4

The work order tree displays the context work order alone expanded till the leaf level. The other work orders, if applicable, are not expanded.

- Note: Task / Discrepancy nodes in tree are displayed in different colors:
- ▶ If the task / discrepancy is assigned to the employee mapped to the login user, then the task / discrepancy is displayed in 'Brown' color.
- ▶ If for the task / discrepancy, clock is started by the employee mapped to the login user, then the task /discrepancy is displayed in 'Blue' color.
- ▶ If for the task, clock has been ended by the employee mapped to the login user, then the task /discrepancy is displayed in 'Dark green' color.
- If the process parameter 'Hierarchical display of Root, Intermediate and Leaf level tasks in Tree in RSED screen?' under the entity type 'Shop Work Order Type' for the entity 'All Work Order' is 'Required', the tree structure in the left pane of the 'Record Shop Execution Details' page displays three levels of grouping: Root, Intermediate and Operational tasks. These tasks are in turn segregated planning status-wise: Planned, In-Progress and Completed. Illustration follows.

Tree Structure

[-] ShopWorkOrder [-] CWO-xxxxx-xxxx [-] Task [-] Planned [] Root_Task_1 [] Intermediate_Task_2 [] Operational Task 1 [] Operational Task 2 [] Intermediate_Task_3 [] Operational Task 4 [] Operational Task 4

- []Root Task 1
- [] Intermediate_Task_2
- [] Operational Task 3
- []Root Task 2
- [] Intermediate Task 4
- [] Operational Task 5
- [] Operational Task 6
- [-] Completed
- _____[] Root_Task_3 _____[] Intermediate_Task_5 [] Operational Task 7
- [] Operational Task 8 [] Operational Task 9
 - Note: The Root or Intermediate tasks can appear under one or more nodes in the tree (Planned, In-progress and <u>Completed</u>) depending <u>upon the status of the operational tasks.</u>
- Tree structure:
- Shop Work Order
- SWO #1

- Task

- Planned

Seq# :: Task Desc :: Work Center # :: Part # :: Serial # :: Part Desc :: ATA # :: Task #

- + In-Progress
- + Completed
- Discrepancy
- Planned

Seq# :: Disc. Desc :: Work Center # :: Part # :: Serial # :: Part Desc :: ATA # :: Discrepancy #

- + In-Progress
- + Completed
- SWO #2
- SWO #3
 - Note: Task / Discrepancy nodes in tree are displayed in different colors:
 - a. If the task / discrepancy is **assigned** to the employee mapped to the login user, then the task / discrep**ancy is** displayed in **'Brown'** color.
 - b. If for the task / discrepancy, clock is started by the employee mapped to the login user, then the task / discrepancy is displayed in 'Blue' color.
 - c. If for the task, *clock has been ended* by the employee mapped to the login user, then the task / discrepancy is displayed in 'Dark green' color.

Refer to the '<u>Tree Search</u>" section for more details.

- 2. When you specify a value in the **Search On** drop-down list box and click **Get** pushbutton, the system refreshes the tree and displays all the shop work orders belonging to the value entered, in the tree structure.
- 3. In the **Display By** field in right pane, select the radio button 'Task' or 'Subtask' to retrieve the task details under the shop work orders, at task level / subtask level.
- 5. Check the **Append** box to transfer the selected records from the tree to the multiline.

In the Task Details multiline,

- 6. Enter the **SWO #** for which the execution details are retrieved.
- 7. Enter the sequence number of the task, valid for the SWO # Task # combination.
- 8. Enter the Task #, Start Date & Time and End Date & Time of execution of the task.
- 9. Use the **Atten. Type** drop-down list box to select the attendance type of the employee, and enter the **Employee Comments**.
- 10. Specify the **Repair Classification** in order to differentiate the tasks which are over and above the contract (COA Contract Over and Above) between the operator and the MRO.
- 11. In the **Time Sheet** group box shown in *Figure 3.22*, click the **Clock On** pushbutton to start the clock on the task.

Time Sheet		
Clock On		Clock Off
		Parts Returned?
Reset	Pre-Close	Complete



- 12. Click the **Clock Off** pushbutton to stop the running clock.
- 13. Check the **Parts Returned?** box to specify that there are no parts pending for return against the selected task.
- 14. Click the **Reset** pushbutton to reset the clock.
- 15. Click the **Pre-Close** pushbutton to pre-close the task.
 - If the task for which the status is changed as "Pre-Closed", is the last task in the work order and if all the other tasks in the work order are already in "Pre-Closed" status, the system updates the status of the shop work order as "Pre-Closed".
 - Short-closes the material request, if any, that is not closed yet, against the task.
- 16. Click the **Complete** pushbutton to complete the execution of the task.
 - Note: The system updates the status of the task to "Completed", if the 'Display By' is set as "Subtask" and if all the subtasks of the task have sign-off status as 'Signed-off", "Void" or "Rejected".



The system updates the status of the Shop Work Order as "Completed", if the task whose status is changed as "Completed" is the last task in the work order and the other tasks in the work order are already completed.

In the **Sign-off Details** group box shown in *Figure 3.23*, enter the employee codes in the **Mechanic**, **Inspector**, **RII and Addl. Sign-Off** fields, to perform respective sign-off of the task / sub-task.

Sign-Off De	tails		
Mechanic		Inspector	Addl. Sign-Off
Skill	Comments	RII	
Sig	n-Off	Reject Task	Void

Figure 3.23 Recording work actuals - Employee sign-off

- 17. Select the **Skill** code of the employee.
- 18. Click the Sign-Off pushbutton to perform sign-off of the task.
- 19. Click the Void pushbutton to void the task.
- 20. Click the **Reject Task** pushbutton to reject the task.

In the **In-Direct Details** group box shown in *Figure 3.24,* enter the **Start Date / Time** at which the clock is started for recording the indirect working hours of the employee.

In -Direct				
In-Direct Cat.	T			
Start Date/Time	t	End Date/Time		
Clock	On	Clock Off	Reset	

Figure 3.24 Recording indirect work hours of employee

- 21. Enter the **End Date / Time** at which the clock is stopped for terminating the indirect work hour reporting.
- 22. Click the **Clock On** pushbutton to start the clock for recording in-direct working hours of the employee.
- 23. Click the **Clock Off** pushbutton to stop the clock for terminating the indirect work hour reporting.
- 24. Click the **Reset** pushbutton to reset the clock.

In the **Receive Part** group box shown in *Figure 3.25*, use the **Primary Work Center #** drop-down list box to specify the work center in which the part is received.

Primary Work Center # YUL-185-30 ×	 Receive Part 		
	Primary Work Center #	YUL-185-30 × 💌	Ack. Receipt

Figure 3.25 Receiving parts



25. Click the Ack. Receipt pushbutton to acknowledge the receipt of parts.

In the **Hold / Release** group box shown in *Figure 3.26*, use the **Hold Code** drop-down list box and select the hold code associated to the 'hold' of the task.

- Hold / Release						
Hold Code	(PDA) Parts Delay Advice X	Comments	\bigcirc			
	Hold	Release	Record Work Hold			

Figure 3.26 Holding / releasing tasks

- 26. Enter the **Comments** related to the tasks that are being put on hold or being released.
- 27. Click the **Hold** pushbutton to hold the task.
- 28. Click the **Release** pushbutton to release the held task.
- 29. Click the Record Work Hold link to hold or release the task.

To proceed further,

- Select the <u>Record Missing Parts List</u> link to record the details of the parts that are missing from a component during execution of a shop work order.
- Select the Record Part Deviation List link to record the details of the pats that are deviating from the component.
- Select the <u>Report Resource Actual</u> link to report or update the actual resource consumption as against the estimation made.
- Select the **Record Parameter Reading** link to record the parameter values for the part.
- Select the <u>Route Parts</u> link to route a part from one work center to another work center or a repair agency.
- Select the <u>Record Parts Consumption</u> link to record the part consumption details.
- Select the **Track Response** link to record details of any request raised by an employee and track the response to the requests.
- Select the <u>Manage Teardown Information</u> link to record teardown information of the part.
- Select the Record Part # / Serial # Change link to record the change in serial number of a component or a serial controlled non component.
- Select the Edit Work Estimates link in the left pane to estimate, update and confirm the part and resource requirements for a shop work order.
- Select the <u>Plan Work Order</u> link to create / modify the shop work order.
- Select the <u>Generate Sub-Work Order</u> link to generate sub-work order.
- Select the Manage Work Assignments and Reporting link to manage work for the employee.
- Select the Create Engg. Service Request link to create an engineering service request.
- Select the Inquire Engg. Service Request link to view an engineering service request.
- Select the <u>Edit Work Order Addl. Info.</u> link to modify the work order additional information.
- Select the Edit Task Addl. Info. link to modify the task additional information.
- Select the **Upload Documents** link in the 'main links' section to upload the documents.

- Select the View Associated Doc. Attachments link to view the attached documents.
- Select the <u>View Work Orders</u> link to view the work order details.
- Select the Issue Certificate of Maintenance link to issue the certificate of maintenance.
- Select the Manage Part Serial Mod Details link to record / manage the Part Serial level MOD details.

3.5.2 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 postcompliance 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.

- Select the Record Parameter Reading / Cond. Eval. Form link from any of the following business components: The Record Parameter Reading / Cond. Eval. Form page appears. See Figure 3.27
 - 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 and "Record Inspector Sign-Off" activity.
 - Shop Work Order: "Record Shop Execution Details" activity.



Record Parameter Reading / Conditional Evaluation	on Form				? [
- Evention Details			Date & Time Format	%	
Exe. Doc. Type / Ref # %			Work Center # %		
- Parameter Reading / E	valuation Form				
Ta	isk #		Task Desc.		
Sub Task I	Desc.		Sub Task Seq #		
Aircraft R	eg #		Part # / Serial #		
Mfr. Part # /	' Serial #		Mfr. #		
Para	meter		Parameter Desc.		
Value / Eval. Res	ponse		Exe. Remarks		
Permitted	/alues		Current Value		
Mand	atory?		Update Mode		
Update Date 8	Time 🛅 1	12:00:00 AM 🛗	Updated by 👂		
Conditional Maintenan	ce Evaluation				
📢 💽 [No records to disp	lay] 🕨 🕨 🝸 🏹		📮 🛥 💷 🖬	V	
# Processed?	Trigger Value	Trigger Value (Min)	Trigger Value	(Max)	Follow
		Found no rows to	o display!!!		
		Update Parameter Reading /	Eval. Form		

Figure 3.27 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.

 \mathcal{R} - 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:

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.

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
- 2. Enter the date and time at which the parameter details are updated in the **"Update Date & Time"** field.
- 3. Enter the employee code of the login user who updated the parameter details in the **Updated by** field.
- 4. 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.
- 5. Click the **Update Parameter Reading / Eval. Form** pushbutton to update the parameter reading details and conditional evaluation details for the task.

Report Findings

You can record observations and discrepancies that are found during execution of tasks. Any observation made during the execution of task and the discrepancies reported by the mechanic against the task, can be recorded. Observations, generally do not have impact on the maintenance operations. But the discrepancies affect the maintenance operations, hence a corrective action need to be specified to resolve the discrepancies reported. You can perform the following using this tab:

- Record new observations and discrepancies in a shop work order.
- Update the observation and discrepancy details during execution of the task.
- Specify the corrective action to be taken to resolve the discrepancy.
- Specify the part disposition details.
- Specify the estimated / actual start date and end date for a discrepancy.
- Transfer discrepancies from one component to another, by specifying the part number and serial number details.
- 1. Select the **Report Findings** tab in the **Record Shop Execution Details** page. *See Figure 3.28.*



Image: Search - Filter Image: Organization of the search of the sear	Work Actual Report Findings Disassemble & Assemble Core Initial Workscoping Material Request
	Details Corrective Action Sign-Off Description New <>
Links Record Missing Parts List Record Part Deviation List	Type MIREP Inspector ATA # P Corrective Action RII Action View Corrective Action History Addi Sim-Off
Report Resource Actual Record Parameter Reading Route Parts Record Part Consumption Track Resonse	Reported by P 00041383 Date & Time Imid Date & Time Imid Recorded by P 00041383 Reference # Repair Task # P Remarks
Manage Teardown Information Record Part # / Serial # Change	Estimates Actual
Edit Work Estimates Plan Work Order Generate Sub-Work Order Manage Work Assignments and Reporting	Update Findings New Findings Edit Discrepancy Addi. Info. Author Repair Procedure Create Eng. Service Request Inquire Eng. Service Request Review Discrepancy History
Edit Work Order Addl. Info. Upload Documents View Associated Doc. Attachments	
Message Center	

Figure 3.28 Report Findings

A tree structure is displayed in the left pane, with "Shop Work Order" as the parent node, "SWO #" as the first-level node and the following second-level nodes:

- **Observation**: The system displays the observations recorded in the SWO # in this node.
- **Discrepancy**: Discrepancies reported against the task in the SWO # are displayed in this node. The system displays the following under this node.

Under Resolution: Discrepancies in "Under Resolution" status are displayed here.

Cancelled: Discrepancies in "Cancelled" status are displayed here.

Closed: Discrepancies in "Closed" status are displayed here.

Transferred: Discrepancies in "Transferred" status are displayed here.

No Fault Found: Discrepancies in "No Fault Found" status are displayed here.

Unprocessed Discrepancies: Under this folder, all the discrepancies that are reported on the Main Core Component, but are not available in the context shop work order are displayed. These discrepancies could have been reported on the Main Core Component through different screens like 'Maintain Discrepancy Information', 'Journey Log', 'Occurrence Report' etc.

The tree structure is as follows:

Tree Structure:

- Shop Work Order
- SWO #1

- Observation
 - <ATA #>:: <Desc>:: <Source Task #>
- Discrepancy
- Under Resolution

ATA # :: Log Item # :: Disc. Desc. :: Source Task

- + Closed
- + Transferred
- + No Fault Found
- + Cancelled
- + Unprocessed Discrepancies
- SWO #2
- SWO #3
 - > Note: Discrepancy nodes in the tree are displayed in different colors:

The discrepancies that are available under 'Under Resolution' and 'Unprocessed Discrepancies' folders in are displayed in 'Blue'' color.

The discrepancies that are available under 'Closed', 'Transferred', 'No Fault Found' and 'Cancelled' folders are displayed in 'Dark green' color.

- 2. When you specify a value in the **Search On** drop-down list box and click **Get** pushbutton, the system refreshes the tree and displays all the shop work orders belonging to the value entered, in the tree structure. Refer to the '<u>Tree</u> <u>Search</u>" section for more details.
- 3. Select the "Observation" / "Discrepancy" node in the tree, to display the **Execution Details, Main Core Details** and **Customer Order Details** of the shop work order to which the selected observation / discrepancy belong, in the right pane.

In the Part Disposition group box,

- 4. Use the **Final Rep. Disp?** drop-down list box and select 'Exchange', 'Missing', 'Repair' or 'Replace', to specify the type of the repair work to be performed on the component, after work order generation.
- 5. Select 'Yes' or 'No' in the NFF?, to specify if any fault is found during inspection of the part, and enter the **Findings Summary** of the work order.

In the Report Findings group box,

- 6. Select the **Observation** radio button to record the observation details. *See Figure 3.29.*
 - Note: If you select this button, only the "Observation" group box is visible. The other sections in the "Report Findings" group appear disabled.

ramco

	- Report Findings		Only th	e observation group box is vis	ible	-
	Observation Discrepancy	Reference Tasl	k # P 3-00-23 on sele	cting Observation radio buttor		
	- Observation					
	Description	$\hat{}$	Reported by P 00001732	Date & Tin	ne	
4	Update Findings			New Findings		
~	Edit Discrepancy Addl. Info. Au	thor Repair Procedure	Create Eng. Service Request	Inquire Eng. Service Request	Review Discrepancy History	

Figure 3.29 Recording observation details – Selection of observation radio button

7. In the **Observation** group box, enter the textual **Description** of the observation recorded, **Reported by** indicating the user who reported the observation and the **Date & Time** at which the observation was reported.

Or

8. Select the **Discrepancy** radio button to record the discrepancy details. *See Figure 3.30.*

Discrepancy	sections are visible					
Discrepancy #		Record Status		— Sign-Off ———	Sign-Off Status	
Description		New	<>	Mechanic		
Type MIREP	▼			Inspector		
	Correcti	ive Action		RII		
Reported by P 00041383	Enter ATA #, Reporte	View Corrective	Action History	Addl Sign-Off		
Date & Time	by and the observation	00041383		Remarks		
		F				

Note: If you select this button, the "Observation" group box is disabled and all the other sections are enabled.

Figure 3.30 Recording discrepancy details - Selection of discrepancy radio button

Details		
 Description 		\diamond
Туре	MIREP 💌	
АТА # 🔎		
Action		•
Reported by P	00041383	
Date & Time		1 <u></u> 1.
Reference #		

In the **Details** group box, enter the discrepancy details. *See Figure 3.31*.

Figure 3.31 Entering discrepancy details

9. Enter the **Description** of the discrepancy and **ATA #** to which the discrepancy

belongs.

- 10. Select the **Action** as 'Closed', 'Part Change Closed', 'No Fault Found' or 'Cancelled' to specify the action taken against the discrepancy.
- 11. Enter **Reported by** indicating the user who reported the discrepancy and the **Date & Time** at which the discrepancy was reported.
- 12. In the **Corrective Action** group box as shown in *Figure 3.32*, enter the description of the **Corrective Action** to be taken, to resolve the discrepancy.

- Corrective Acti	on	
New	<-	->
Corrective Action		\sim
	View Corrective Action History	
Date & Time		
Recorded by P	00041383	
Repair Task # 👂		

Figure 3.32 Recording details of corrective action taken against discrepancy

- 13. Enter the **Date & Time** at which the corrective action was reported, and the **Reported by** indicating the user who reported the corrective action.
- 14. In the **Sign-Off** details group box, enter the sign-off details of the task. *See Figure 3.33.*

Sign-Off	
Mechanic	
Inspector	
RII	
Addl Sign-Off	
Remarks	

Figure 3.33 Entering sign-off details

- 15. In the Estimates group box, enter the task estimation details.
- 16. Enter the actual task execution details in the Actual group box. See Figure 3.34.

- Estimate	5					
Start 03-04	-2016 12:58:33 🛅	End	13-07-2016 12:58:38	1	Est. Man Hrs.	1.00
File Name	10-04-2016 12:58:50		End View File		🛗 Man Hrs.	

Figure 3.34 Entering task estimation and actual details

17. In the **Transfer Details** group box, enter the transfer details of the discrepancy. You can enter the transfer details only if the **Action** is set as 'Part Change Closed'. *See Figure 3.35*.

- Transfer De	tails		
Part # 👂		Serial # 👂	
Comp # 👂]	

Figure 3.35 Entering discrepancy transfer details

- 18. Click the **Update Findings** pushbutton to update the observation and discrepancies.
- 19. Click the **New Findings** pushbutton to record new observations and discrepancies for the shop work order.

Note: The system updates the record status of the discrepancy as "Under Resolution" if the "Action" is not specified.

To proceed further,

- Select the Edit Discrepancy Addl. Info. link at the bottom of the page to modify the task / discrepancy details.
- Select the Create Eng. Service Request link to create an engineering service request.
- Select the Inquire Eng. Service Request link to view the details of the engineering service request.
- Select the **Review Discrepancy History** link to view the discrepancy details.

Additional links in the left pane:

- Select the <u>Record Missing Parts List</u> link to record the details of the parts that were found missing from a component during execution of the shop work order.
- Select the **Record Part Deviation List** link to record the details of the pats that are deviating from the component.
- ► Select the <u>Report Resource Actual</u> link to report or update the actual resource consumption as against the estimation made.
- Select the <u>Record Parameter Reading</u> link to record the parameter / conditional evaluation details for the task.
- Select the <u>Route Parts</u> link to route a part from one work center to another work center or a repair agency.
- Select the <u>Record Parts Consumption</u> link to record the part consumption details.

- Select the Track Response link to record details of any request raised by an employee and track the response to the requests.
- Select the <u>Manage Teardown Information</u> link to record teardown information of the part.
- Select the **Record Part # / Serial # Change** link to record the change in serial number of a component or a serial controlled non component.
- Select the Edit Work Estimates link in the left pane to estimate, update and confirm the part and resource requirements for a shop work order.
- Select the <u>Plan Work Order</u> link to create / modify the shop work order.
- Select the Generate Sub-Work Order link to generate the sub-work order.
- Select the Manage Work Assignments and Reporting link to manage work for the employee.
- Select the <u>Edit Work Order Addl. Info.</u> link to modify the work order additional information.
- Select the **Upload Documents** link in the 'main links' section to upload the documents.
- Select the View Associated Doc. Attachments link to view the attached documents.
- Select the Manage Part Serial Mod Details link to record details of alterations carried out on the part.

Disassembling / assembling core

In this tab, you can perform removals, attachments, and replacements of child components and spare parts of the main core component. Child Work Orders / Repair Orders are generated during removal of the part / component with specific 'Initial Disposition'. During removal, parts can be identified as 'Phased Out' and can be labeled as 'Marked for Retirement', Exchange Orders are created if removed with 'Exchange' based 'Initial Dispositions'.

During removal, Routing Slip will get printed if for the 'Initial Disposition' selected 'Routing Slip Print?' is set as "Auto". Routing slip is a document that contains movement details of the particular component or part, such as "From Work Center", "To Work Center", etc. The system generates Material Request and Purchase Request during removal for specific 'Initial Dispositions'.

1. Select the Disassemble & Assemble Core tab in the Record Shop Execution Details page.

The system displays the following tree structures in the left pane:

- ▶ Work Order Tree
- Component Replacement Tree

Work Order Tree:

2. Click the 'Show Work Orders' icon 🐏' in the left pane. See Figure 3.36.

The "Work Order" tree structure is displayed with "Shop Work Order" as the parent node. This is a static node under which following details are displayed.

- All the shop work orders are displayed in ascending order under the static node.
- On expanding a node in each Shop Work Order #, the tree displays child nodes (Part # -Serial #) node containing Main Core details i.e. details of the component for which the shop work order has been created.

- Under the Main Core details node, system will display the configuration of the Main Core Component if configuration exists and if it is in 'Active' status.
- ▶ If 'Spare Part List' exists for the Part # Serial # available in a node, in the "Configuration" business component, the system displays "Piece Parts" as a last node in the tree structure, under which the lists of parts that are identified in the 'Spare Part List' are displayed.

* 🗎 Record Shop Execution Details	5												24		•	?	[¢
+ Search																	
	Work A	ctual	Report	Findings	Disassemb	le & Asse	mble Core	Initial W	orkscoping Ma	iterial Request							
🔁 🔁 🔯 🖽 🗉 Search - Filter 🛛 🔎 🌱		ution D	ntaile														1
🖮 😋 ShopWorkOrder	Exec		etaiis														
⇒ 🔁 AWO-000009-2012			SWO # ,	AWO		AWO-00	0009-2012		Eve	ent # AWO-0000	09-2012	Primary Wo	rk Center 185-	20			
			Status I	Planned					Job	Type Engine							
E No Records found	H Main	Core D	etails —														
B AWO-000022-2016																	
B _ AWO-000023-2016	+ Custo	omer O	rder Detai	ils —													
AWO-000025-2017	- Renk	acemer	t Details														
B AWO-000044-2017																	
B 🔂 AWO-000045-2017	+ Sear	ch —															
B 🛄 AWO-000046-2017	Dart	Dotaile															
🗄 🧰 AWO-000047-2017	Enanci	Details															
B 🔁 AWO-000048-2017	44.4	[No re	ecords to a	lisplavi			8 8 T T	A In				All		Ŧ		1	
B AWO-000051-2017		- 04	David #	0	Off Carial #	-	Off Comp. #	-	Testial Diseasettion	Chil Durk 2	Removal Ob.	Comm TD	Compared of		4		
B AWO-000053-2017		- OII	Pdft #	р.	OTI Senal #	Υ.	Off Comp. #	Ω,	Inicial Disposition	Stu. Exch.?	Relitioval QLy.	Group ID	Generated St	<i>v0 # / k0</i>	*		
# AWO 2018	1								*								
Work Order Tree in																	
Record																	
Record UISASSEMDIE &																	
Route P Assemble Core' tab																	
Record 71000111010 COTO 100																	
Track Response																	
Manage Teardown Information		4	C												>		
Record Part # / Serial # Change			Deed De			(CHA)		Lasa				Dautina Dataila					
View MOD Details			Kequ. Da	e 01-02-	-2019 09:22:09	EO		Local	not		_	Routing Details					
Manage Part Serial MOD Details		Upda	te/ Remov	/e			Attach Removed P	art At			Re-	print Routing S	Slip				
churter i	Print Part	Tag			Inqui	e Stock Av	ailability		Create New F	art Request		Inquire Part R	equest Status				
Edit Work Estimates	Help on N	on-Comp	p. Removed	Serial #	Help	on Non-Con	np. Installed Serial	#	Generate Ser	viceable Certificat	te						
Plan Work Order	View File																
Generate Sub-Work Order																	
Manage Work Assignments and Reporting																	
Edit Work Order Addl. Info.																	
Unload Documents																	
View Associated Doc. Attachments																	
Message Center																	

Figure 3.36 Disassembling / assembling core

The tree structure is as follows:

Work Order Tree Structure:

- Shop Work Order

- SWO #1

- Position Code :: Part # :: Part Desc. :: Serial # :: Component

- Piece Part

- Part # : Part Desc. : Quantity

- SWO #2

- Position Code :: Mfr. Part # :: Mfr. # :: Part Desc. :: Serial # :: Component #

- Piece Part

- Mfr. Part # : Mfr. # : Part Desc. : Quantity

- SWO #3

Note: Nodes in tree are displayed in different colors as given below: (Node coloring is not applicable for nodes under 'Piece Parts' folder)



- If the Position Code is empty, then the node is displayed in 'Blue' color.
- If from a Position Code, component has been removed and attached back, then the node is displayed in 'Dark Green' color.

Component Replacement Tree:

3. Click the 'Show Replacements' icon '⁽¹⁾ in the left pane.

The "Component Replacement" tree structure is displayed with "Shop Work Order" as the parent node. The component replacement transactions, including component and non-component replacements, all removals, attachments and replacements done for the shop work order, are displayed in the tree. *See Figure 3.37*.

	Work Actual Report Findings	Disassemble & Assemble Core	Initial Workscoping	Material Request		
ShopWorkOrder	Execution Details					
AWO-000053-2016	SWO # CWO	CWO-008722-2015		Event # CWO-008722-2015	Primary Work Center YUL-100-01	
□ □ 0-0440-4-0015:363611 :: 54 □ □ CWO-008722-2015	Component Replacemen	t	1	Job Type Component		
🗄 🧰 285T0607-9:81205 :: SL1182107	Tree in 'Disassemble &					
	Assemble Core' tab					
	Replacement Details					
	Restoration Task # P NST-003248-	2015	Re	ason	•	
	Ac	tion 💿 Disassembly 🔘 Assembly 🔘	Disassembly & Assembly 🔘) View		

Figure 3.37 Disassembling / assembling core – Component Replacement Tree

The following folders are displayed in this tree:

- Only Removals: All the Component Removals (both 'Component' and 'Non-Component' CRs) against which attachment has not yet happened are displayed under this folder.
- Only Attachments: All the Component Attachments (both 'Component' and 'Non-Component' CRs), which are not performed against any removal, are displayed under this folder.
- Replacements: The attachment details and the details of the removals against which attachment has happened, are displayed here.

The tree structure is given below:

Component Replacement tree structure:

- Shop Work Order

- SWO #1

- Only Removals

- Position Code :: Off Part # :: Off Part Desc. :: Off Serial # :: Off Comp. # :: Qty :: CR # :: Disposition Code :: Generated Order # :: Gen. Order Status

- Only Attachments

- Position Code :: On Part # :: On Part Desc. :: On Serial # :: On Comp. # :: Qty :: CR #

- Replacements

Position Code :: Off Part # :: Off Mfr. # :: Off Part Desc. :: Off Serial # :: Off Comp. # :: Qty ::
CR # :: Initial Disposition :: Generated Order # :: Gen. Order Status :: On Part # :: On Mfr. # ::
On Part Desc. :: On Serial # :: On Comp. # :: Qty

- SWO #2

Issued Part Tree:

4. Click the 'Show Issued Parts' icon '11-' in the left pane.

The "Component Replacement" tree structure is displayed with "Shop Work Order" as the parent node. The component replacement transactions, including component and non-component replacements, all removals, attachments and replacements done for the shop work order, are displayed in the tree. *See Figure 3.38*.

	Work Actual Report Findings	Disassemble & Assemble Core	Initial Workscoping Material Request	
	Execution Details			
GWO-000289-2012	SWO # OWO	OWO-000398-2013	Event # OWO-000398-	2013 Primary Work Center YUL-100-00
	Status In-Progres	5	Job Type Component	
CWO-000307-2012 CWO-006528-2012	+ Main Core Details			
□ 🔂 OWO-000012-2011	Customer Order Dataile			
D-60PSIA:61049 :: AEX-SRL-00011	+ Customer Order Details			
	Replacement Details			
Position Co Component	de :: Part # :: Part Desc. :: Serial # :: #	6	Rosson	-
Component		.0	Redson	•
		Action Oisassembly Assembly	Disassembly & Assembly 🔘 View	

Figure 3.38 Disassembling / assembling core – Component Replacement Tree

On clicking the 'Show Issued Parts' icon, the system displays a tree structure with "Issued Parts List" as the parent node. The tree is expanded till leaf level and displays all the pending parts issued against the work order. The Work Order # is displayed in the next level, followed by the tasks in the work order. The tasks are listed in the tree only if part is issued against it and if it is operational task. If no task has part issued, the value "No Part Available" is displayed. The issued part list tree is displayed only if a work order reference is available. The tree structure is given below:

Issued Part Tree structure:

- Issued Parts List
- Work Order #
- Task Seq #::Task #::Task Description

Part #::Part Desc::Serial #::[NA]::1

Part #::Part Desc::[NA]::Lot #::4

- Task Seq #::Task #::Task Description

Part #::Part Desc::[NA]::NA]::5

If Serial/Lot details are not available, [NA] is displayed as shown in the format above. Tool Tips are displayed for all the nodes and records of the tree. In the tree structure, the system displays "Mfr. Part # - Mfr. #" combination, if the parameter "Enable Manufacturer Part # control in transaction" under the Category 'Manufacturer Part #' is set as "Yes" in the "Set Inventory Process Parameters" activity of the "Logistics Common Master" business component. If the parameter is set as "No", the system displays "Part #".

On clicking part details in the tree, the system transfers the part details to the 'On Part #', 'On Mfr. Part #', 'On Mfr. #', 'On Serial #', 'Attachment Qty' of the selected row in the multiline if any one row is selected or transferred to new row if no row is selected. An error message is displayed, if more than one row is selected.

- Note: The tree lists only the used quantity of parts available against the work order. The reconciliation qty of the particular part and the main cores issues are not listed in the tree.
- 5. When you specify a value in the **Search On** drop-down list box and click **Get** pushbutton, the system retrieves and displays the following:

- All the shop work orders belonging to the value entered, and that are in "Planned", "In-Progress" or "Completed" status.
- Only the shop work orders with 'Work Centers' for which the login user has access privileges identified in the "Work Center" business component.
- Note: Refer to the '<u>Tree Search</u>" section for more details.
- 6. Select the shop work order node in the tree, to transfer the details from the tree to the **Execution Details** section, **Main Core Details** section and the **Customer Order Details** section.

In the Replacement Details group box,

- 7. Enter the **Restoration Task #** indicating the task against which the part is attached, removed or replaced.
- 8. Select a node in the tree and click the '^[1]' icon to transfer the part details from the tree to "Part Details" multiline.
- 9. In **Action** field, select one of the following radio buttons to perform desired action on the part:
 - Disassembly Select this radio button to perform removal of part from the main core component.
 - Assembly Select this radio button to attach parts to the main core component.
 - Disassembly & Assembly Select this radio button to perform removal and attachment of part with respect to the main core component.
- View Select this radio button to display in the multiline, entire component attachments, removals and replacements for the work order. (However, these are already available in the Component Replacements tree under Disassemble/Assemble tab.)

In the Search group box,

- 10. Use the Search by drop-down list box and select one of the values 'Attached Part #', 'Attached Position Code', 'Empty Position Part #', 'Empty Position Code', 'Removed Part #', ' Disposition' or 'Restoration Task #', which appear selectively, based on the radio buttons selected in the Action field.
- 11. Click the Search pushbutton to retrieve the part details in the multiline.

In the Part Details multiline,

- 12. Enter the details of the part to be removed, such as Off Mfr. Part #, Off Mfr. #, Off Part #, Off Serial #, Off Comp. #, Removal Qty, and Removed MSN #.
- 13. Specify the **Initial Disposition** of the part, indicating the type of the work to be performed on the part removed.
- 14. Enter the **Group ID** which is an identifier specified against the part numbers and serial numbers, if you wish to generate single work order when removing multiple part numbers and serial numbers.
- 15. Enter the details of the part attached, such as On Mfr. Part #, On Mfr. #, On Part #, On Serial #, On Comp. # and Attachment Qty.
 - Note: If the 'Action' is set as "Disassembly", the system disables the fields 'On Mfr. Part #', 'On Mfr. #', 'On Part #', 'On Serial #', 'On Comp. # and 'Attachment Qty.'.
- 16. Enter the Position Code in the aircraft from which the component must be



removed, and the Next Higher Assembly (NHA) details such as NHA Mfr. Part #, NHA Mfr. #, NHA Part #, NHA Serial # and NHA Comp. #.

- 17. Click the **Save as Draft** pushbutton to save CR records in the multiline of the Disassemble & Assemble Core tab.
 - Note: The system does not generate Comp. Removal #/Comp. Attachment #for the CR records saved in the Draft status. However, the push button - Save as Draft will be enabled only for the following actions:
 - o Disassembly
 - o Assembly
 - o Disassembly & Assembly
- 18. Click the **Update / Remove** pushbutton to update the disposition of the part and to remove the part. This button is disabled, if the 'Action' is set as "Assembly".
- 19. Check the Attach Removed Part box to remove and attach the removed part.

Note: This button is disabled, if the 'Action' is set as "Disassembly".

20. Click the **Attach / Replace** pushbutton to remove and attach the part. This button is disabled, if the 'Action' is set as "Disassembly".

On clicking the pushbuttons mentioned above, the system performs the following based on specific process parameters predefined in the "Define Process Entities" activity of the "Common Master" business component:

- Generates a shop work order.
- Generates a repair order.
- Generates a purchase request.
- Creates routing.
- Prints routing slip automatically.
- Creates material request for the removed part.
- Creates an Exchange Order.
- Generates scrap note for the removed part.
- 21. Click the **Re-print Routing Slip** pushbutton if you wish to print the routing slip manually.

To proceed further,

- Select the Print Tag for Removed Object link at the bottom of the page to print the tag for removed objects that you selected in the multiline.
- Select the Inquire Stock Availability 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 Part Request Status link to retrieve the part request status details.
- Select the Help on Non-Comp. Installed Serial #" link to view the list of the Non-Component installed serial numbers.
- Select the **Generate Serviceable Certificate** link to generate the Serviceable certificate for removed parts prevailing in the Serviceable condition.

Refer to the section "Additional Links in the left pane" for more details.
Initial Workscoping

It is essential to define the scope of work in the Shop Work Order. In this tab, you can define workscope by adding and reviewing tasks in the Shop Work Order. During removal of parts / components, Child Work Orders are generated based on the selected 'Initial Disposition'. This tab allows you to define workscope of Child Work Orders that are generated.

1. Select the Initial Workscoping tab in the Record Shop Execution Details page.

	Work	Actu	al	Rep	ort Find	ings	Disas	semble 8	& Asse	mble Core	Initial W	orkscoping	Material Requ	est			
🖼 🗉 Search - Filter 🛛 🖉 🎾 🦕	- Exe	cutio	on De	tails													
AWO-000053-2016 :: 0-0440-4-0015:3636			S	WO #	cwo			C	WO-00	8722-2015			Event # CWO-008	722-2015	Primary	Nork Center	YUL-100-01
G CWO-008722-2015 :: 285T0607-9:81205 :	:		5	status	In-Pro	gress						3	ob Type Compone	nt			
No Records Found	+ Mai	in Co	re De	tails													
	+ Cus	tom	er Ord	ler D	etails –												
		rksco	nina	Orde	r Detail	s											
			ping			cwo	009722	2015									
Initial Workscoping tree	Due	: a lict	SWO #	≠ CN	0	Cw0-	008722	-2015			Order De	cription TEST			Order St	atus In-Prog	jress
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	5	E	Searc	h - Fil	ter	×	2 4	· <u>6</u>	• ⊡			Cli	ck the trans	fer icon i	n the		
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ecord Missing Parts List	1		N	N	I	PE	FR		3 3	-60-78		Prop Check 3		60-00			
ecord Part Deviation List	2		N	N	I	PE	FR		4 3	-60-79		Prop Check 4		60-00			
eport Resource Actual	4		N	N	I	PE	FR		6 3	-60-85		Prop Check 2		60-00			
ecord Parameter Reading	5		N	Ν	I	PE	IP		7 1	IST-003247-2	015	NST		00-00			
aute Parts	6		N	Ν	I	PE	IP		8 1	IST-003248-2	015	NST		00-00			
rack Response	7																
anage Teardown Information																	
ecord Part # / Serial # Change																	
dit Work Estimates								<		_							>
an Work Order																	1
anerate Sub-Work Order									Dee	nare Work	cono			Print	Task Card(s)		
anage Work Assignments and Reporting					elease r	-or exe	cuuori		FIG	pare work	scope			Print S	el. Task Card	(s)	
dit Work Order Addl. Info.	Author R	Repair	Proce	dure				View Task	k								
pload Documents																	
ew Associated Doc. Attachments																	
																7	
Message Center																	

Figure 3.39 Initial workscoping

A tree structure is displayed in the left pane, with "Shop Work Order" as the parent node which is displayed in expanded state. This is a static node under which all the shop work orders that match the search criteria are displayed in collapsed state. Under each shop work order, the system displays their child work orders under the following folders:

- a. **Pending Initial Workscoping**: All child work orders which do not have any task, discrepancy or non-routine are displayed under this node.
- Pending Estimates: The system displays all the child work orders whose 'Shop Work Order Type' has the parameter 'Enforce confirmation of estimations on release?' set as "Required" in the "Set Process Parameters" page of the Common Master", and the Estimates which are not confirmed for at least one task.

- c. **Pending Release**: In this node, the system displays the child work orders that satisfy one of the following conditions:
 - The parameter 'Enforce confirmation of estimations on release?' must be set as either "Not Required" or "As Required" for the 'Shop Work Order Type' in the "Common Master" business component, Estimates are not confirmed and the Work Order is not released for execution
 - Estimates for the Shop Work Order are confirmed and the Work Order is not released for execution.
- d. **Released**: The child work orders that are released for execution are displayed under this node.
- e. **Exchanged Items**: The child work orders that are de-linked from parent work order by exchange orders are displayed here.

The tree structure is as follows:

Tree Structure:

- Shop Work Order
- SWO #1 :: Part # :: Serial # :: Part Desc.
- Pending Initial Workscoping

- Child SWO # :: Part # :: Serial # :: Part Desc.

- Pending Estimates
- Pending Release
- Released
- Exchange Items
 - Pending Initial Workscoping
 - Child SWO # :: Part # :: Serial # :: Part Desc.
 - Pending Estimates
 - Pending Release
 - Released
- SWO #2 :: Part # :: Serial # :: Part Desc.
- 2. When you specify a value in the **Search On** drop-down list box and click **Get** pushbutton, the system retrieves and displays the following:
 - All the shop work orders whose part # / serial # matches the entered value, and that are in "Planned", "In-Progress" or "Completed" status.
 - Only the shop work orders with 'Work Centers' for which the login user has access privileges identified in the "Work Center" business component.
 - Note: Refer to the '<u>Tree Search</u>" section for more details.
- 3. Select a child shop work order # node in the tree. The system performs the following:



- Transfers the details of the corresponding parent shop work order to the Execution Details section, Main Core Details and Customer Order Details section.
- Displays the child work order details in the "Due List" tree in the right pane.

Due List Tree

In this section, a tree structure is displayed with the Work Order, for which workscoping is intended (Workscoping Work Order), as a parent node. The tasks, discrepancies and subassemblies under the work order are displayed as child nodes. The folders displayed under each child work order are as follows:

- a. **Tasks:** The system displays the tasks that are available in the 'Pending Tray' of the Component of the Workscoping Work Order, satisfying the following conditions:
 - When the task does not have an Engineering Document as reference.
 - If 'Planned Start Date' of the Task is not available, Schedule Date of the tasks displayed must be earlier than or equal to the horizon date, where
 - Note: Horizon Date = Current date + Planning Horizon (Days) (Popup- 'Planning Horizon (Days)' is a parameter set for the Entity '--All Work Order--SWO' in the "Common Masters" business component.)
 - When the 'Planned Start Date', if available for the task, is earlier than or equal to the horizon date.
- b. **Eng. Docs**: The system displays the tasks that are available in the 'Pending Tray' of the Component of the Workscoping Work Order, and satisfying the conditions mentioned for the "Tasks" folder, except that the tasks displayed here must have an Engineering Document as reference.
- c. **Discrepancies:** The system displays the discrepancies that are reported on the Component # of the Workscoping Work Order and satisfying the following conditions:
 - Discrepancies that do not have 'Planned Date', but have 'Scheduled Date' earlier than or equal to the horizon date.
 - Discrepancies having 'Planned Date' earlier than or equal to horizon date.
- d. **Applicable Tasks:** The tasks that satisfy the following conditions, are displayed under this node:
 - Tasks having Part # / Mfr. Part # Mfr. # combination, in its 'Part Effectivity' list. (Part Effectivity of the Task is defined in the "Aircraft" and "Maintenance Task" business components.)
 - Tasks having Prime Part # of the Part # / Mfr. Part # Mfr. # combination in its 'Part Effectivity List'.
 - For the WBS code mapped to the task in the "Common Masters" business component, the parameter 'Workscoping Element?' must be set as "Yes" and the parameter 'WBS Level' must be set as other than "Leaf".
 - Only the Tasks, for whose WBS code, the parameter 'WBS Level' is set as "Root", are displayed at first level under this node. The tasks and the 'Related Tasks' defined in the Repair Scheme are retrieved and displayed at second level, if for the WBS code

mapped to the Related Tasks, the parameters 'Workscoping Element?' is set as "Yes" and 'WBS Level' is set as "Intermediate".

e. Unprocessed Tasks: In this folder, the system displays all the tasks available in the parent shop work orders of all level, with 'Separation Rule' as "As Required" and satisfying the following conditions:

Displays the tasks with Part # / Mfr. Part # - Mfr. # same as the Main Core Part # / Main Core Mfr. Part # - Mfr. #of the current SWO.

Displays the tasks with Part # / Mfr. Part # - Mfr. # available as an alternate Part # to the Main Core Part # / Main Core Mfr. Part # - Mfr. # of the current SWO, if

Main Core Part # does not exist in any 'Active' Master Sequence # in the "Maintenance task" business component.

Main Core Part # exist in an 'Active' Master Sequence #, and if the Part # of the task also exists in the same Master Sequence #.

f. Sub-Assemblies: All the sub-assembly components of the main core component of the workscoping work order are displayed under this node in the format "Part # :: Serial # or Mfr. Part # :: Mfr. # :: Serial #". Under each Subassembly Part # / or Mfr. Part # - Mfr. #, the folders 'Tasks', 'Eng. Docs', 'Discrepancies', 'Applicable Tasks', 'Unprocessed Tasks' and 'Sub Assemblies' are displayed, with respective values under each folder.

The "Due List" tree structure is as follows:

```
- SWO #1 :: Part #1 :: Serial #1
```

- Tasks

- ATA # :: Task # :: Task Desc. # :: Rem. Times

- Eng. Docs
- ATA # :: Task # :: Task Desc. # :: Rem. Times :: Eng. Doc.
- Discrepancies

- ATA # :: Discrepancy # :: Discrepancy Desc. # :: Rem. Times

- Applicable Tasks

- ATA # :: Task # :: Task Desc.

- Unprocessed Tasks

- ATA # :: Task # :: Task Desc. :: Part # :: Part Desc.

- Sub Assemblies

- Part # :: Serial # :: Part Desc.

- + Tasks
- + Eng. Docs.
- + Discrepancies
- + Applicable Tasks
- + Sub Assemblies

+ Unprocessed Tasks

- SWO #2 :: Part #2 :: Serial #2

- SWO #3 :: Part #3 :: Serial #3

On selecting a node e.g. task or a discrepancy, and clicking the "Transfer" icon, the system transfers the task / discrepancy details to the multiline.

- 4. Click the 'Due List' icon to transfer the task details from the "Due List" tree to the "Task Details" multiline.
 - Note: When you select a node in the "Due List" tree and click the 'Transfer' icon, the system transfers the task, discrepancy and sub assembly details from the tree to the "Task Details" multiline.
- 5. In the **Display Option** field, select one of the following radio buttons:

Workscope Items – Select this radio button to retrieve and display only those tasks available in the shop work order, for which the process parameter 'Workscoping Element?' is set as "Yes" for the WBS (Work Breakdown Structure) code mapped to the task, in the "Set Process Parameter" page of the "Common master" business component.

Additional Items – Select this radio button to retrieve and display the non-routine tasks and discrepancies that are available in the shop work order.

Detailed Items - Select this radio button to retrieve and display only those tasks and non-routines available in the shop work order, for which the process parameter 'Execution Operations?' is set as "Yes" for the WBS code in the "Common master" business component. The discrepancies that are available in the shop work order are also displayed.

In Task Details multiline,

- 6. Enter the **#** indicating the sequence number of the task in the shop work order, Task # and the ATA #.
- 7. Enter the Part # / Mfr. Part # Mfr. #, Serial #, Est. Elapsed Time for execution of the task and select the Time UOM as 'Hours' or 'Days'.
- 8. Select **Routing Reqd.?** as 'Yes' to indicate that routing is required for a part after completion of the task. Else select 'No'.
- 9. Specify the execution Work Center #, and the preferred Repair Agency #.
- Enter the Position Code, Level Code, NHA Mfr. Part #, NHA Part Mfr. #, NHA Part # of the sub-assembly, if Part / Mfr. Part # - Mfr. # is different from the Main Core Part # / Main Core Mfr. Part # - Mfr. #.
- 11. Use the **Separation Rule** drop-down list box to specify the basis of movement of tasks from parent work order to child work order during removal of a part. You can select from 'By Part # Serial #', 'By NHA Part # Serial #' and 'As Required'.
- 12. Enter the Plan Start Date / Time, Plan End Date / Time and Est. Man Hrs to complete the task.
- 13. Check the **Release For Execution** check box to release the tasks for execution.
- 14. Click the Prepare Work Scope pushbutton to prepare workscope for the task.
- 15. Click the **Print Task Card(s)** pushbutton to print all the Task Cards of that package.
- 16. Click the **Print Sel. Task Card(s)** pushbutton to print the selected Task Cards of that package through ePubs interface.



Note: If the "Task Card Print Format" process parameter of the entity "All Work Order" under the entity type "Shop Work Order Type" in the activity "Define Process Parameters" of Common Masters is '0' (Operator), the task card is generated in a linear format. However, if "Task Card Print Format" is set as '1' (MRO), layout of the task card would be hierarchical.

Refer to the "Additional Links in the left pane" section for more details.

To proceed further,

- Select the View MOD Details link to open the Part Serial Mod popup.
- Select the Manage Part Serial Mod Details link to record details of alterations carried out on the part.
 - Note: The above link is available only if the Mod # details of the task are effective for the main core or additional core part#.

Generating material request

This tab allows you to raise material request for a part in the main core. You can place a request either for an existing part or a new part. A unique number will be generated for each material request. You can also record / modify the part requirements in the shop work order, and monitor the availability of requested parts in the warehouse.

This tab allows you to accomplish the following:

- Generate material request for a parts that are required for execution of tasks.
- Short-close material request.
- Monitor availability of requested parts in warehouse.
- Record / modify part requirements.
- Generate material request for main core parts.
- 1. Select the Material Request tab in the Record Shop Execution Details page. See Figure 3.40.





Figure 3.40 Generating Material Request

A tree structure is displayed in the left pane, with "Shop Work Order" as the parent node. This is a static node under which all the shop work orders are displayed in ascending order. On expanding a node of the Shop Work Order #, the tree displays the Standard Tasks, Non-Standard Tasks and Discrepancies that are available in the Shop Work Order # in the ascending order of their Seq. #.

On expansion of a Standard Task / Non-Standard Task / Discrepancy folder, the system displays the following folders:

- a. New Request: You can select this node and transfer to place a new request.
- b. **Request Pending**: All the part requirements for which material request is not generated for the particular Standard Task / Non-Standard Task / Discrepancy, are displayed under this node.
 - Note: If for a part requirement, material request has been generated for a partial quantity of the estimated quantity, the system displays the remaining quantity for which material request has not been generated under 'Request Pending' folder..
- c. **Request Generated**: All the part requirements for which material request has been generated for the particular Standard Task / Non-Standard Task / Discrepancy, are displayed under this node.
- d. Issued / Consumed: The system displays the part requirements of the specific Task / Discrepancy for which material request has been generated, and either request for the particular part has been short-closed or issue has been confirmed for the particular part.

Tree Structure:

- Shop Work Order

- SWO #1

- T1

- New Request

- Request Pending
 - Part # :: Qty :: Part Desc.
 - Request Generated
 - Part #::Part Desc.: Qty. Reqd.: Pend. Issue Qty.::MR # :: MR Status
- Issued / Confirmed
 - Part # :: Part Desc. :: Issue # :: Issued Qty. :: MR # :: MR Status

- T2

- New Request
- + Request Pending
- + Request Generated
- + Issued / Confirmed
- + SWO #2
- + SWO #3
 - Note: The system displays the nodes containing tasks in different colors as mentioned below:

If values are available under 'Request Pending' folder under the Task, the system displays the Task node in 'Blue' color.

If values are available in 'Request Generated' or 'Issued / Consumed' folder and not in 'Request Pending' folder under the Task, then system displays the corresponding Task node in 'Dark green' color.

If values are not available in 'Request Pending', 'Request Generated' and 'Issued / Consumed' folders under the Task, then system displays those Task nodes in default color.

- Sefer to the 'Tree Search" section for more details.
- 2. When you specify a value in the **Search On** drop-down list box and click **Get** pushbutton, the system retrieves and displays the following:
 - All the shop work orders whose part # / serial # matches the entered value, and that are in "Planned", "In-Progress" or "Completed" status.
 - Only the shop work orders with 'Work Centers' for which the login user has access privileges identified in the "Work Center" business component.
- 3. Click the '^[]' icon to transfer the details from the tree to the **Execution Details** section, **Main Core Details, Customer Order Details** section and the multiline.

In the Part Details multiline,



- 4. Enter the **Task #** available in the shop work order specified in the header, against which the material request is raised.
- 5. Enter the Part # / Mfr. Part # Mfr. #.
- 6. Enter the **Qty. Reqd.** indicating the actual quantity for parts required for completing the task, and specify the **UOM** in which the parts are required.
- 7. Enter **Need Date** to indicate the date by which the required quantity of the requested part is needed for maintenance/task execution.
- 8. Enter **UOM** for the requested part.
- 9. Enter Warehouse that requested the part.
- 10. Enter **Stock Status** in which the requested part is needed.
- 11. Use the **New Part? d**rop-down list box and select 'Yes' or 'No' to specify whether the part requested is a new part or not.
- 12. Select the **Need Frequency** as 'As Required' or 'Always' to specify if the part is mandatory for the execution of the task.
- 13. Use the **Request Mode** drop-down list to specify the mode in which the part is requested. You can select 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 to the main core.
 - Force Req. Select this option, if the part requested is not effective to the main core.
 - Conditional Req. Select this option, if the part requested is effective or conditionally
 effective to the main core.
- 14. Specify the **Reqd. Condition** indicating the condition of the part requested as 'New', 'Overhauled', 'Serviceable' or 'Unserviceable'.
- 15. Select the Alternate Type of the part, and enter the Alternate Part # / Alternate Mfr. Part #.

The system displays **Effectivity Notes**, **Hold Code**, **Hold Comments**, and **PMA?** which indicates whether the part is a Parts Manufacturer Approval (PMA) part. PMA parts are those parts which are not manufactured and supplied by the Original Equipment Manufacturer (OEM), but by an external source, with the approval of the Federal Aviation Administration (FAA).

- 16. Click the **Generate Material Request** pushbutton to generate the material request. The system performs the following:
 - Generates material request for the part requirements identified, and displays the Material Request # and the status of the material request.
 - Creates a new part, if "New Part?" is set as "Yes".
 - If there are multiple warehouses, the system generates multiple material requests with one Material Request # for each warehouse.
- 17. Enter the Comments, if you wish to short-close material request.
- 18. Click the **Print Material Movement Doc.** pushbutton to print the material movement document (MMD).
- 19. Click the **Short Close Material Request** pushbutton to short-close the material request.
 - Note: Ensure that the status of the material request is not "Short-Closed" or "Closed", before clicking the "Short Close Material Request" pushbutton.



- 20. Click the Edit Part Requirements pushbutton to record the part requirements.
- 21. Click the **Check Part Availability** pushbutton to check the availability of the part requested.
- 22. Click the **Request Main Core** pushbutton to generate material request for the main core. On clicking this pushbutton, the system performs the following:
 - Generates material request for the main core.
 - ▶ Updates the 'Main Core Status' as "Pending Issue".

To proceed further,

- Select the Request Preferred Serial # / Lot # Info. 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 Record Part Consumption link to record the part consumption details.
- Select the **View Part Information** link to view the part details.
- Select the Inquire Stock Availability link to retrieve the stock availability details.
- Select the Inquire New Part Request link to view the new part request details.
- Select the View Maintenance Info. for Parts 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 part.

Refer to the "Additional Links in the left pane" section for more details.

Request Preferred Serial / Lot information

This page enables you to record your part requirement with serial # and lot # control specifications.

1. Select the **Request Preferred Serial # / Lot # Information** link in the Record Shop Execution Details page under the Material Request tab. The Request Preferred Serial # / Lot # Information page appears. *See Figure 3.41.*

★ 🗎 Request Preferred Serial # / Lot Information			2	# 🖶 🖬 🗲 ?	Co K
		Date Format			
Order Details					
SWO # OWO OWO-000012-2011	Order Desc. For Repair		Status In-Progress		
Primary Work Center # YUL-230-05	Job Type Component		Event # RAMCO-000011		
+ Main Core Details					
- Part Details					
Line # 1 V	Requested Part # 0-9700-0-4453:36	361	Mfr. # 36361		
Stock Status Customer Owned	Part Desc. VERNIER 6" DIAL	CALIPER	Warehouse # YULCSSFS	SV	
- Preferred Serial/ Lot Details					
(i) ↓ [No records to display] → → + = □ ≠ ♀ ♀ ↓ ▼ ▼.			III III	•	Q
# 🗉 Seq # Serial # 👂 Lot # 👂	Qty. Component # Available	e in Warehouse?	Condition %	Rem. Life E	Expiry De
1					
Click h of the r	ere to view details component	The condition of the	ne part		
4					•
View Part Certificate History	Edit Preferred Information View Component Parameters				

Figure 3.41 Requesting preferred serial # / lot # information

Note: In the "Main Core Details" group box, the system displays "Mfr. Part # - Mfr. #" combination, if the parameter "Enable Manufacturer Part # control in transaction" under the Category 'Manufacturer Part #' is set as "Yes" in the "Set Inventory Process Parameters" activity of the "Logistics Common Master" business component. If the parameter is set as "No", the system displays "Part #".



In the Preferred Serial / Lot Details multiline,

- 2. Enter the sequence number of the task in the **Seq #** field.
- 3. Enter the serial number of the part in the Serial # field.
- 4. Provide the Lot # of the part / piece part for which the SWO is created and enter the quantity of the requested part in the Qty. field.
 - Note: The Serial # Lot # combination for a "Requested Part #" must be unique for a multiline row.
- 5. Click the **Edit Preferred Information** pushbutton to save the preferred Serial # / Lot # information.

To proceed further,

- Select the View Part Certificate History link to inquire part certificate history.
- Select the View Component Parameters link to view component record details.

3.5.3 Recording missing parts from a component

The **Record Missing Part List** task enables you to record details of parts that are missing from a component during execution of a shop work order. Shop mechanics can record details of missing parts including manufacturer details, serial or lot details, quantity and UOM of the missing parts.

1. Select the **Record Missing Part List** link from the **Record Shop Execution Details** page. The **Record Missing Part List** page appears. *See Figure 3.42.*

	Re	cor	d Missing Part List			Date and Time Format yyyy-dd mm AWO-000053-2016 511 Serial = 54 UOM P Qty. Remarks Created by Created Date / Time Last Modified By 66							
	Wor	4 O	der Detaile						Date and Time Form	at yyyy-dd-mm			
		R OI		Ref. Doc # Sho Part # 0-0	p Work Order 440-4-0015:363611	AWO-000053-2016			Serial	# S4			
) Miss	sing	Part List										
Ŀ	4 4		[-1/1 } ≫ + - ⊡	* © C T T,						H III AI	•		Q
-		2	Part # / Serial # 🔎	Serial #	Lot #	UOM P	Qty.	Remarks	Created by	Created Date / Time		Last Modified L	9y
1			0-0440-4-0015:363611			66							
2													
			<										>
							Update Details						

Figure 3.42 Recording missing parts from a component

In the **Missing Part List** multiline, enter the following details of parts that are missing from the component associated with shop work order: **Part #, Mfr. Part #, Mfr. Serial #, Mfr. #, Serial #, Lot #, UOM and Qty.**

Click the Update Details pushbutton to save details of missing parts.

3.5.4 Editing work order additional information

You can modify the attributes of the work order during execution. Only those work orders which are in "Planned", "In-Progress" or "Completed" status can be modified. You can modify the execution details of the work order, part movement / disposition details and part removal / warranty details.

You can view the EO references associated with the work order, contract terms and



conditions of the work order, engineering change details, including the change in part # / serial, compliance status of the tasks, etc. You can also view the details of the tasks available in the shop work order, in a tree structure. This page also allows you to modify any additional information of the tasks available in the work order and the discrepancy reported against the task.

1. Select the Edit Work Order Addl. Info. link in the Record Shop Execution Details page. The Edit Work Order Information page appears. *See Figure 3.43.*

★ 📄 Edit Work Order Information			44 4 1 2 3 4 ▶ ₩ 1	1 /4 🗐 ≭ 🖶 🗗 🗲 ? 🗔 🖪
			Date & Time Format yy	vyy-dd-mm hh:mm:ss
Order Details SWO # AWO AWO-0000 Primary Work Center # 185-20 Main Core Datale	53-2016 Ord	ler Desc. Testing Job Type Component	Main core details	Status In-Progress ent # AWO-000053-2016
Part # 0-0440-4-0015:363611 Component # C004416-2015 Order Execution Details Part Movement & Obsolation Details	op work order tails Reference Details Contract Terms & Co	# S4 s? No inditions Removal & Warranty	Part D Main Core St Details Engineering Change Details T	esc. PS9323 CARRIER atus Issued adk Details
Execution Details Category LRepair X	Order Priority	NRM	User Status	
CoM Reqd? Yes 💌 Work Requested	Plan Start Date / Time Repair Process Code	2016-20-05 15:01:00	Plan End Date / Time Order Class	2016-21-05 07:01:09
Repair Classification ROUTINE Job Card References	Stock Status Discrepancy References	Accepted	Hold Status Mod Instructions	No
Accounting Details Expense Type Capital	CAPEX # p	APN-000038-2016	Click this pushbutton to modify the work order details	
	Edit Order	Execution Details		
Last Modified By DMUSER			Last Modified Date / Time 2016-21-05 11:3	37: 18

Figure 3.43 Editing work order additional information

The system retrieves and displays the **Order Details** and **Main Core Details** of the shop work order selected in the main page.

- 2. Select the <u>Order Execution Details</u> tab to modify the execution details of the work order.
- 3. Select the <u>Part Movement & Disposition Details</u> tab to modify the movement and disposition details of the part.
- 4. Select the <u>Reference Details</u> tab to view the reference details of the work order.
- 5. Select the <u>Contract Terms & Conditions</u> tab to view the contract details of the work order.
- 6. Select the <u>Removal & Warranty Details</u> tab to modify the part removal details, warranty details and other ownership details of the work order.
- 7. Select the <u>Engineering Change Details</u> tab to view the engineering change details of the work order.
- 8. Select the <u>Task Details</u> tab to view the details of the tasks in the engineering documents associated to the work order.
- 9. Click the **Edit Order Execution Details** pushbutton to modify the work order details.

Modifying order execution details

You can modify the execution details of the work order, such as order priority, category, plan start / end date and time of the work order, repair classification to which the work belongs,



order class i.e. internal or external work orders. You can also specify whether the work order is of expense type "Capital" or "Revenue".

1. Select the Order Execution Details tab in the Edit Work Order Information page.





In the Execution Details group box,

- 2. Select the execution Category and Order Priority of the work order.
- 3. Enter the Plan Start Date / Time and Plan End Date / Time of the work order.
- 4. Select the **Repair Process Code** that defines various repair processes that are performed on a component, and **Repair Classification** to differentiate the tasks which are over and above the contract (COA Contract Over and Above) between the operator and the MRO.

In the Accounting Details group box,

- 5. Select the Expense Type of the work order as 'Revenue' or 'Capital'.
- 6. Enter the **CAPEX #** indicating the capital expense proposal number applicable to the work order, if the **Expense Type** is selected as 'Capital'.

Modifying part disposition and movement details

This tab allows you to modify the disposition and movement details of the main core. You can specify initial and final disposition details indicating the type of the work to be performed on the part removed, whether any fault is found during inspection of the part, current location of the part, location where the main core must be returned after the work is completed, etc.

1. Select the Part Disposition & Movement Details tab in the Edit Work Order Information page. See Figure 3.45.

0	Order Execution Details	Part Movement & Disposition Details	Reference Details	Contract Terms & Conditions	Removal & Warranty Details	Engineering Change Details	Task Details
E	Part Disposition			- Core Me	ovement Details		
		Initial Repair Disp. 1-REPAIR				Current Loc.	
		Final Repair Disp. 1-REPAIR	~			Next Move	
		Disposition Remarks			1	Final Movement Return to Speci	0123
		NFF? No			Mov	ement Remarks	
		BER?					
			Specif repair be per	fy the type of the wo , replace, exchange rformed on the main	ork i.e. , etc. to i core		

Figure 3.45 Modifying part disposition and movement details

In the Part Disposition Details group box,

2. Use the **Final Rep. Disp.?** drop-down list, specify the type of the work i.e. repair, replace, exchange, etc. to be performed on the main core, during the

final stage (for example, after work order generation).

 The system displays the Disposition Remarks, NFF? indicating whether any fault is found during inspection of the main core, and BER indicating whether the servicing of the main core component is Beyond Economic Repair (BER) or not.

In the Core Movement Details group box,

4. Use the **Final Movement** drop-down list box to specify the location where the main core must be returned after the entire work is completed. You can select 'Not Applicable', 'Return to specified WH', 'Return to specific Work Center', 'Return to Prime WC', 'Return to Top Assy. WC', 'Return to org. WC', 'Return to A/C', 'Return to Supplier', 'Return to Customer' or 'Return to Customer'.

Viewing reference details

In this tab, you can track and view the reference details of the work order, such as customer order details, execution reference details, parent work order details, work requested details such as discrepancy references, job card references, etc.

1. Select the **Reference Details** tab in the **Edit Work Order Information** page. *See Figure 3.46.*

Order Execution Details	Part Movement & Disposition Details	Reference Details	Contract Terms & Conditions	Removal & Warranty Details	Engineering Change Details	Task Details
Customer Order Detail	ls					
Customer Ord	der # / Rev # CO-000593-2012 0		Customer # 4006	04	Ord	er Desc. TEST
Source Custo	omer Order # CO-000593-2012		Contract # TNMC	CONTRACT	Workscop	pe Code 3-0000003
A/C Execution Details						
A/C Mair	it. Exe. Ref #		Aircraft Reg # C-GK	TS	Work C	enter #
Parent Work Order De	tails					
P	arent SWO #		Root SWO #			

Figure 3.46 Viewing reference details

The system displays the following details in this tab:

- Customer Order Details Customer Order # / Rev #, Customer #, Order Desc., Source Customer Order #, Contract #, Workscope Code.
- ▶ A/C Execution Details Exe. Ref #, Aircraft Reg. #, Work Center #.
- ▶ Parent Work Order Details Parent SWO #, Root SWO #.

Viewing contract terms and conditions

In this tab, you can view the contract details of the work order. The system retrieves and displays the contract information from the **Sale Contract – Services** business component.

1. Select the **Contract Terms & Conditions** tab in the **Edit Work Order Information** page. *See Figure 3.47.*

	Orde	Execution Details Part Move	ment & Disposition Details Reference Details	ails Contract Terr	ns & Conditions	Removal & Warranty Details Engineering Change Details Task Details	
	44 4	1 - 10 / 20 → →→ ▼	T _x				v
	#	Element	Description	Value	Auto Hold?	Hold Codes	
	1	Estimates - FP In-scope Jobs	Estimation for Fixed Price In-scope Jobs	Not Required			
	2	Estimates - FP Out of Scope Jobs	Estimation for Fixed Price Out of Scope Jobs	Required	Yes	Other Reason	
	3	Estimates - T&M In-scope Jobs	Estimation for T&M In-scope Jobs	Required	Yes	Other Reason	
	4	Estimates - T&M Out of Scope Jobs	Estimation for T&M Out of scope Jobs	Required	Yes	Other Reason	
	5	Deviation	Usage of Deviated Parts	Allowed with Approval	Yes	Other Reason	
	6	PMA Usage	Usage of PMA Parts	Any PMA part Allowed			
	7	PMA Preference	PMA Part Preference	Not Preferred			
1	8	Timesheet Reporting	Allow Time Reporting by Other Employees?	No			
	9	Parts Consumption	Parts Supplied by	Only Customer			
	10	Customer Parts	Customer Supplied Parts	Customer Specific			

Figure 3.47 Viewing contract terms and conditions



The system displays the following details in this tab:

- Operational **Element** defined in the contract.
- The **Description** of the element.
- The permitted **Value** of the operational parameter.
- Auto Hold? indicating whether the task is put on hold.
- Hold Codes for the work delays that are permitted.

Modifying removal and warranty details

You can modify the part removal details, supplier and customer warranty details, and the ownership details of the work order. You can specify the registration number of the aircraft from which the main core is removed, serial number of the aircraft, reason for removal of the component, ship or shelve disposition of the main core, etc. You can also modify the warranty details of the work order.

1. Select the **Removal & Warranty Details** tab in the **Edit Work Order Information**

page.	See Figure 3.48.					
Order Execution Details Part Movement &	Disposition Details Reference De	tails Contract Terms & Condi	tions Removal &	Warranty Details	Engineering Change Details	Task Details
Removal Details Removed from Arcraft Reg # P 1101-1 Removal Date & Time Supplier Warranty Details	R	emoved from Part # / Serial # 🏼 🎝 🛛	020-807-0:0A 1K8	0293R00015	Reason for Removal 🖇 Discrepancy Coun	SCHEDULED
Warranty Agreement # /	/ Supplier #			V	Varranty Ref. #	
Customer Warranty Warranty Requested? No	V	Warranty Resolution	•		Warranty Notes	
Ownership / Owning Agency #		Exchange Contract?			PBH Coverage	

Figure 3.48 Modifying removal and warranty details

In the Removal Details group box,

- 2. Enter the **Rem. From A/C Reg # / MSN #** indicating the registration number of the aircraft from which the component / main core for which the work order is created, is removed, and the manufacturer serial number of the aircraft.
- 3. Enter the **Removed from Part # / Serial #** indicating the part number of the engine from which the component is removed, and the serial number of the engine.
- 4. Enter the **Reason for Removal** of the component from the aircraft, and the **Removal Date & Time.**

In the Supplier Warranty Details group box, the system displays the Warranty Agreement # / Supplier # and the Warranty Ref. #.

In the Customer Warranty Details group box,

- 5. Specify whether warranty is requested for the main core in the **Warranty Requested?** drop-down list box.
- 6. Use the **Warranty Resolution** drop-down list box to specify the decision of the Customer Service Manager (CSM) regarding the status of the warranty requested for the main core. You can select the option 'Accepted', 'Rejected' or 'Partial'.



In the Ownership Details group box, the system displays Ownership / Owning Agency #, Exchange Contract? indicating whether the main core is covered under exchange contract with the supplier or not, and **PBH Coverage** of the main core.

Viewing engineering change details

In this tab, you can view the engineering change details such as change in the part #, serial # or both part # and serial #, during execution of the work order. The details are retrieved from the Engineering Document business component and displayed here.

1. Select the Engineering Change Details tab in the Edit Work Order Information page. See Figure 3.49.

Order Execution	Details Part Movement & Di	isposition Details	Reference Details	Contract Terms & Conditions	Removal & Warranty Details	Engineering Change Details	Task Details	
	New Part #			New Serial #		Sub Assembly Modific	ation	
- Engineering [Document Details							
📢 ┥ [No re	ecords to display] 🕨 🕨 🔻	T _x			노 프 등 x	🖾 🕮 🖷 💷 🛛 All	T	Q
# Ref. Doc	. Туре	Ref. Doc #	Con	mpliance Status	Sub Assembly Modific	ation	Existing Part #	



In this tab, the system displays the details such as New Part #, New Serial #, Sub Assembly Modification, Ref. Doc. Type, Ref. Doc #, Compliance Status of the tasks within the engineering document, Sub Assembly Modification, Existing Part #, Existing Serial #, Modified Part #, Modified Serial # and MCR # / Rev #.

Viewing task details

In this tab, you can view the details of the tasks available in the shop work order. A tree structure is displayed, in which you can view the sequence in which the task is executed, execution-related action performed on the task, sign-off status of each task, execution facility identified for the task, estimation status of the task, details of discrepancy reported against the task, hold status of task, etc.

1. Select the Task Details tab in the Edit Work Order Information page. See Figure

3	•	5	0	

		5.50.								
	Order Execution	n Details Part Movemen	t & Disposition Details	Reference Details	Contract Terms & Conditions	Removal & Warrant	/ Details Engine	eering Change Details	Task Details	
IΓ	- Task Details									
	1 - 4 / 4					人 血 回	x 2 🗎 ₹	₽ All	v	o ^
	Task #	Task Desc.	Rep. Seq #	O. Seq #	Exe. Action	Mandatory?	Sign-Off Status		Execution Facility	
	iii 1-00-90	Barcoding Check - 2		L	Execute N	۹o	Not Required		Internal	
	- 3-00-23	Operational -5	:	2 1	Execute N	No.	Not Required		Internal	
	3-00-24	Operational -6	:	3 2	2 Execute	No.	Not Required		Internal	
	3-00-25	Operational -7		; 3	Execute 1	No.	Not Required		Internal	
										~

Figure 3.50 Viewing task details

In the Task Details tree structure, the system displays the following details:

- Task #, Task Desc., Rep. Seq # of the task, O. Seq # indicating the sequence of the task, defined in the repair scheme.
- Exe. Action of the task, Mandatory?, Sign-Off Status, Execution Facility, Estimation Status of the task, Task Status, Discrepancy #, Discrepancy Desc., Child SWO # / Child Repair Order #, Hold Status.

3.5.5 Editing task / discrepancy information

This page allows you to record any additional information of the tasks and the discrepancies associated with the task. When execution is done after planning, if you wish to record any additional information of the task / discrepancy, this page proves to be useful. You can capture details such as execution status of the task, hold status, estimation status, disposition details, repair basis, etc. The details of the discrepancy associated with the task, can also be captured in this page. You can specify whether the discrepancy is related to corrosion, whether parts are required to close the discrepancy, etc.

Execution related details of the task can also captured in this page. You can record the plan start / end date and time and actual start / end date and time of the task. You can also retrieve the details of the reference document associated with the task execution and the commercial / financial information such as Expense Type warranty details of the task.

1. Select the Edit Task Addl. Info. link in the Record Shop Execution Details page. The Edit Task / Discrepancy Information page appears. *See Figure 3.51*.

		** * 1		Lõ (
		Date	Time Format yyyy-dd-mmhh:mm:ss	
- Order Details				
SWO # AWO AWO-000053-2016	Order Description Testing	Ord	ler Status In-Progress	
Primary Workcenter # 185-20	Job Type Component		Event # AWO-000053-2016	
Main Core Details				
Task Details Execution Information Reference Information Information	Commercial / Financial Information			
- Task Details				
Task # / Rep. Seq # 👂 1-00-90 1	Get Details	0. Seq #	Seq. Control #	
Task Rev. #	Parent Task #			
Task Desc. Barcoding Check - 2	Root Task #			
Part # 0-0440-4-0015:363611	Serial # S4			
Disposition	Separated? No			
Exec. Status In-progress	Hold Status		Estimation Status Pending Estimates	
WBS Code 1-PME	Repair Basis OEM			
Workscoping Remarks				
Eng. Instructions				
Description of the Market				
- Record Statistics				
Last Modified By DMUSER	Last Modified Date & Time 2016-21-05 11:	37:18		

Figure 3.51 Editing task / discrepancy additional information

The system retrieves and displays the **Order Details** and **Main Core Details** of the shop work order selected in the main page.

- 2. Select the <u>Task Details</u> tab to capture the task details.
- 3. Select the **Discrepancy Details** tab to record the discrepancy details of the task.
- Select the <u>Execution Information</u> tab to record the execution details of the tnask.
- 5. Select the **<u>Reference Information</u>** tab to view the reference details of the task.
- 6. Select the <u>Commercial / Financial Information</u> tab to record the commercial / financial details of the task.

Recording task details

This tab allows you to capture the task details, such as execution status of the task, hold status, estimation status, disposition details, repair basis, etc.



1. Select the Task Details tab in the Edit Task / Discrepancy Information page. See

		- Fi	igure 3.52.					
1	Task Details	Execution Informati	ion Reference Inform	nation Commercial / Financial Information				
6	- Task Details							
1	fask # / Rep. Se	eq # 👂 1-00-90		1 Get Details		O. Seq #	Seq. Control #	
		Task Rev. #		Parent Task :				
1		Task Desc.	Barcoding Check	Enter the task number /				
		Part #	0-0440-4-0015:363611	renair sequence number	S4			
		Disposition			No			
		Exec. Status	In-progress				Estimation Status Pending Estimates	
		WBS Code	1-PME	Repair Basi	OEM			
		Workscoping Remarks						
		Eng. Instructions						
								_



- 2. Enter the Task # / Rep. Seq # in the Task Details group box. The task # Rep. Seq # must be a valid combination that exists in the shop work order.
- 3. Click the **Get Details** pushbutton to retrieve the task details.

The system displays the following details:

- Seq #, Seq. Control #, Task Rev. #, Parent Task #, Task Desc., Root Task #.
- Part #, Serial #, Mfr. Part #, Mfr. #, Serial #.
- Disposition of the part, Separated? which indicates whether the tasks can be moved from the parent work order to the child work order, Exec. Status, Hold Status, Estimation Status of the task.
- ▶ WBS Code which defines the Work Breakdown Structure (WBS) indicating the attributes that identify whether the task is executed for planning purpose or execution purpose.
- Repair Basis, Workscoping Remarks, Eng. Instructions.

Recording discrepancy details

name Cas Finuna 2 F2

Note: This tab is visible, only if you select discrepancy to invoke this page.

The details of the discrepancy associated with the task, can be captured in this tab. You can specify whether the discrepancy is related to corrosion, parts are required to close the discrepancy, whether the item on which discrepancy is reported, is a major item or not, etc.

1. Select the Discrepancy Details tab in the Edit Task / Discrepancy Information

		page. See rigu	118 5.55.									
Task Details Discrep	ancy Details	Execution Information	Reference Information	Commercial / Financ	ial Information							
 Discrepancy Informat 	tion											
C	Discrepancy #	CDP-000410-2016		Discrepancy Description	Test							
F	Record Status	UnderResolution		Discrepancy Category		T		Tracking Status				
Tested Prior	to Tear Down	Yes 🔻		Primary cause of Failure	Yes 🔻			Corrosion Related ? No 🔻				
	Major Item ?	No		Part Required ?	No 💌							
User Defined Detail	ils						1					
📢 ┥ [No records	, 	· · · · · · · · · · · · · · · · · · ·					# # III	Specify whether	Q			
# 🗈 Discrepar	Spec	ify whether the ite	<mark>m on Use</mark>	er Defined Value 1		User Defined Value 2		discrepancy reported is	Name			
1	which	discrepancy is re	ported ~					related to correction				
	is ma	ior item or not										
	10 1110											

Figure 3.53 Recording discrepancy details

- 2. Select the Discrepancy Category and the Tracking Status to be assigned to the discrepancy.
- 3. Use the Tested Prior to Tear Down drop-down list to indicate whether the



reason specified by the customer for the repair of the part, is verified before generating the teardown report.

- 4. In the **Primary cause of Failure** drop-down list box, select 'Yes' or 'No' to indicate the criticality of the discrepancy reported against the task.
 - ➤ Yes Select this option to indicate that the discrepancy reported against the task needs to be resolved immediately, so as to avoid interruption of further execution activities.
 - No Select this option to indicate that the discrepancy reported against the task does not affect further execution activities, so the discrepancy need not be resolved immediately.
- 5. Use the **Corrosion Related?** drop-down list box to specify whether the discrepancy reported is related to corrosion.
- 6. Select 'Yes' or 'No' in the **Major Item?** drop-down list box to specify whether the item on which discrepancy is reported, is a major item or not.
- 7. Use the **Part Required?** drop-down list box to specify if the parts are required to close the discrepancy.
- 8. Click the **Edit Discrepancy Information** pushbutton to record the discrepancy details.

Recording task execution details

You can record execution details of the task. You can specify whether the task needs to be cancelled or pre-closed, indicate whether routing is required for a part after completing the required task, specify the preferred repair agency for repairing the part.

1. Select **Execution Information** tab in the **Edit Task / Discrepancy Information** page. *See Figure 3.54.*

	page. See Figure 5.54.		
Task Details Execution Infor	nation Reference Information Commercial / Financial Information		
Task Execution Details			
Exec. Phase	C0/Pre-Induction Exec. Priority	NRM 🔻	
Repair Process Code	Overhaul Exec. Category	1-Repair 💌	Repair Classification ROUTINE
Routing Required?	No 🔻 Exec. Action	Execute 💌	User Status 🔍 🔻
Work Center #	185-20 💌 Repair Agency # 👂		
– Plan			
	Start Date / Time 2016-20-05 15:01:09	End Date / Time	2016-20-05 22:01:09 🕮
	Est. Elapsed Time 7.00 UOM Hours 💌	Est. Man Hrs	3.00
- Actual			
	Start Date / Time 2016-21-05 11:37:52 III	End Date / Time	
	Elapsed Time 420.00 UOM Hours 🔻		
	Edit Task Informatio	ion	

Figure 3.54 Recording task execution details

In the Task Execution Details group box,

- 2. Select the Exec. Phase, Exec. Priority, Exec. Category of the task.
- 3. Use the **Repair Process Code** drop-down list box to specify the repair process code that defines various repair processes that are performed on a component, and specify the **Repair Classification** to differentiate the tasks which are over and above the contract (COA Contract Over and Above) between the operator and the MRO.
- 4. Select the **Exec. Action** to be performed on the task, as 'Execute', 'Cancel', or 'Pre-Close'.
- 5. Select the **Work Center** # that is responsible for SWO execution, and enter the preferred **Repair Agency** # for repairing the part.



In the **Plan** group box,

- 6. Enter the planned **Start Date / Time** and **End Date / Time** of execution of the task.
- 7. Enter the Est. Elapsed Time for execution of the task.
- 8. Select the **UOM** in which the **Est. Elapsed Time** is displayed, as 'Hours' or 'Days', and enter the **Est. Man Hrs** to complete the task.

In the Actual group box,

- 9. Enter the actual Start Date / Time and End Date / Time of execution of the task.
- 10. Enter the **Elapsed Time** for completing the task, and select the **UOM** in which the **Elapsed Time** is displayed, as 'Hours' or 'Days'.
- 11. Click the Edit Task Information pushbutton to record the task details.

Viewing reference information of the task

You can view the forecast details of the task and the details of the reference document associated to the task, in this tab.

1. Select the **Reference Information** tab in the **Edit Task / Discrepancy Information** page. *See Figure 3.55.*

Jag	;e.	JEE	1	iyui	С	э.	JJ.	
			-				-	

Task Details	Execution Information	Reference Information	Commercial / Financial Information	
– Eng. Doc De	tails			
	Eng. Doc #		Eng. Dos Dos	# Eff Erom Data
	Cubicat		Lig. Doc Ker	. + Lii. Hoirbate
- Forecast De	etails			
	Rem. Times		Inte	val % Used
	Forecast # Au	itoForecast # 218- 2010		
View Task Date / F	Reference			

Figure 3.55 Viewing reference information of the task

In the **Eng. Doc Details** group box, the system displays **Eng Doc #, Eng. Doc Rev. #, Eff. From Date** indicating the date from which the engineering document is effective, and **Subject** indicating the description of the engineering document.

In the Forecast Details group box, the system displays the following:

- Rem. Times indicating the remaining life of the part.
- Interval in which the tasks must be executed on the part.
- % Used which indicates the used flying hours of the component.
- Forecast # available for the task, if the source document available for the task is "Component Maintenance Forecast".
- 2. Select the View Task Date / Reference link to view the task / discrepancy date and reference details.

Recording commercial / financial information

This allows you to capture commercial information such as expense details and warranty details.

1. Select the Commercial / Financial Information tab in the Edit Task / Discrepancy



Task Details	Execution Information	Reference Information	Commercial / Financial Information	n	
 Costing Det 	tails				
- Commercia	l Details	Expense Type Capital	-		CAPEX # P APN-000038-2016
		Warranty Reco.? No 🔻			Est. Remarks
			Edit Comme	cial / Financial Information	
					Enter the capital expense
					proposal number if Expense
					Type is "Capital"

In the Costing Details group box,

2. Select the **Expense Type** of the work order as 'Revenue' or 'Capital'. Enter the **CAPEX #** applicable to the work order, if the **Expense Type** is "Capital".

In the Commercial Details group box,

- 3. Use the **Warranty Reco.?** drop-down list box and select 'Yes' or 'No' to specify whether warranty is recommended for the part.
 - If Warranty Resolution for the work order is set as "Accepted", 'Warranty Reco.?' must be selected as "Yes" for the operational tasks.
 - ▶ If Warranty Resolution for the work order is set as "Rejected", 'Warranty Reco.?' must be selected as "No" for the operational tasks.
 - ▶ If Warranty Resolution for the work order is set as "Partial", 'Warranty Reco.?' must be selected as "Yes" for at least one operational task in the work order.
- 4. Enter the Est. Remarks related to the work order estimation.
- 5. Click the **Edit Commercial / Financial Information** pushbutton to record the commercial / financial details of the task.

3.5.6 Reporting resource actual

This is a one-stop screen for reporting or updating the actual resource consumption as against the estimations made.

1. Select the **Report Resource Actual** link in the left pane in the **Record Shop Execution Details** activity. The **Report Resource Actual** page appears. *See Figure 3.57.*



Report Resource Actual		44 1 2 <u>3</u> 4)) 2 /4	≣ ≭ # ₽ ← ? ©
		Date & Time Format yyyy-dd-n	nmhh:mm:ss
Shop Order Details			
SWO # AWO-000053-2016	AWO	Status In-Progress	
Job Type Component		Event # AWO-0000	revision number of
Order Desc. Testing		1110 the	
Customer Order # / Rev #		Customer # Lile	standard procedure
Task # / Seq # 3-00-23/2		Revision #	
Task Desc. Operational -:	2		
	T I I I I		
Default From Date / Time 2016-27-05 1	7:23:22 The actual hours of	Default End Date / Time	
Recourse Actual Datails	resource used for		
Resource Actual Details	executing the work unit		
			Q v
# 🖹 Task # 🖉 Seq # Resource Type	Resource # P Facility Object #	From Date / Time To Date / Time	Actual Hours Use
1 🖸 3-00-23 2 Skills 🗸		From Date / Time	
2 🖾 Skills 🗸		From Date / Fine	
<			>
	Report Resource Actual		
iew Fadiity Details	View Facility (Dbject Details	

Figure 3.57 Reporting resource actual

- 2. Enter the **Task # / Seq #** for which you wish to update the actual resource details, in the **Task Details** group box.
- 3. Enter the **Default From Date/Time**, **Default To Date/Time** and **Actual Hours** of the resource used for executing the work, in the Update Details group box.

In the Resource Actual Details multiline,

- 4. Enter the Task #, Seq #, Resource Type, Actual Hours and other details.
- 5. Click the **Report Resource Actual** pushbutton to update the actual resource consumption.

3.6 Generating sub-work order

This is a one-stop screen for creating a sub-work order i.e., replacement work order for top assembly as well as child work orders. A sub-work order could be created for one of the following reasons:

- ▶ When the final testing of engine fails after completion of an engine work order, the user can have the option to re-perform the task(s) in a new work order.
- Dispositioned removal of blades such that child work order(s) got generated. Tasks to be performed can include cleaning of blades and part #/serial # entered found to be incorrect. In order to correct the part #/serial # in a released work order, user can have the option to create a replacement work order and proceed.

In this activity, you can generate a sub-work order with the option of copying all tasks or only the open tasks. For a main core which is serial controlled, you can have only one work order in "Open" status. But for a main core which is lot controlled or none controlled, more than one work order can be available in "Open" status. This activity copies all the work scoping tasks and based on the repair scheme definition for the work scoping task, child tasks will be retrieved.

This activity allows you to accomplish the following:

- Generate sub work order
- Pre-close the source work order
- Generate external work orders when no customer order is available.
 - Note: When no customer order is available for external sub-order generation and a valid contract exists then a new customer order is created and then the sub-work order is generated.
- 1. Select the Generate Sub-Work Order link in the Plan Work Order activity of the Shop Work Order business component. The Generate Sub-Work Order page appears. *See Figure 3.58.*

★ 🗓 Generate Sub-Work Order 🔤 🕫 🛱 🔶 ? 🗔 🗖											
Work Order Details											
SWO # AWO WORK order	Order Status										
Order Description Testing	Event # AWO-000053-2016										
Repar Classification ROUTINE generated is Order Category 1:Repair	Order Priority NRM										
User status displayed here											
Man Core Details											
Part # \$P\$ 0-0440-4-0015:363611 Serial # \$P\$ \$4											
Mfr. Part # Ø Mfr. # Ø	Serial # 👂 S4										
Lot # P Qty. 1.00											
Component # P C004416-2015 Stock Status Accepted											
Multiple Cores? No Main Core Status Issued	Part Desc. PS9323 CARRIER										
Customer Order Details											
Source Customer Order # / Rev # Customer #	Order Desc.										
Contract #											
Generation Option											
Copy All Tasks Copy Open Tasks Pre-Close Source SWO											
Generate Sub-Work Order											
Edit Additional Core Details Plan Work Order											

Figure 3.58 Managing Intershop Routing

- 2. In the **SWO #** drop-down list box, select the SWO Type against which a sub work order has to be created. The code identifying the sub work order generated, is displayed alongside.
- 3. Enter Order Description.
- 4. Enter the Part # / Mfr. Part # Mfr # and Serial # of the part, Lot # and Component #.



- 5. Select one of the following check boxes in the Generation Option group box.
 - Copy All Tasks Check this box if the user wish to copy all the workscoping tasks from the source work order to the generated sub-work order.
 - ➤ Copy Open Tasks Check this box if the user wishes to copy only the workscoping tasks which are in "Draft", "Fresh", "Planned" and "In-progress" status from the source work order to the generated sub-work order.
 - Pre-Close Source SWO Check this box if the user wishes to pre-close the source work order.
- 6. Click the Generate Sub-Work Order pushbutton to generate a sub-work order.

To proceed further,

- Click the Edit Additional Core Details link to associate additional cores to the sub-work order. The link is applicable only for quantity work orders.
- Click the <u>Plan Work Order</u> link to navigate to the main screen.

3.7 Managing intershop routing

This activity enables you to move or route a part from one work center to another work center or a repair agency. You can also take a printout of the routing slip and acknowledge receipt of the part. Also, if the part to be routed has to be sent to a repair agency, repair order can be generation while routing the parts.

1. Select the Manage Intershop Routing activity in the Shop Work Order business component. The Manage Intershop Routing page appears. *See Figure 3.59.*

	Man	age Intershop R	tou	ting								Ramo	o Role - R	AMCO OU 👻 🎞	- 🖶 🗧 🗧 🕞
												Date	e and Time I	Format dd/mm/yyy	/
P R	efere art Re	nce Document Deta	ils -	Ref. Doc # Part # / Serial #	SWO #		v		Sear	Q, rch		Removed from Search On	Componer Pending M	nt # v	
	•	1 - 10 / 248	Þ	* + - C -		T T,				人口			All		۵ 🔻
#		Ref. Doc Type		Ref. Doc # 🔎	Part # 🔎	Serial # 🔎	Qty.	Disposition		From Warehouse #	From Repair Agency #	From Work Cen	ter #	To Work Center #	From Work Center Area
1		Shop Work Order #	~	CWO-007231-2013	0-0440-4-	0.187126721233	1.00	2-RETURN AS IS	*			185-20	*	~	
2		Shop Work Order #	~	CWO-007684-2013	0-0440-4-	0.452759741573	1.00	2-RETURN AS IS	*			185-20	*	*	
3		Shop Work Order #	~	CWO-007714-2013	0-0440-4-	0.955739592640	1.00	2-RETURN AS IS	~			185-20	~	~	
4		Shop Work Order #	~	CWO-007743-2013	0-0440-4-	0.255761289489	1.00	2-RETURN AS IS	*			185-20	*	~	
5		Shop Work Order #	~	EWO-000005-2011			1.00	1-REPAIR	*			YUL-100-00	~	~	
6		Shop Work Order #	~	EWO-000014-2011	9324M40G0	730000		1-REPAIR	~			YUL-175-24	*	YUL-175-50 🗸	
7		Shop Work Order #	*	EWO-000013-2011	9324M40G0	731693		1-REPAIR	*			YUL-175-24	*	*	
8	V	Shop Work Order #	~	EWO-000013-2011	9324M40G0	731693		1-REPAIR	~			YUL-175-24	~	~	
9		Shop Work Order #	~	EWO-000013-2011	9324M40G0	731693		1-REPAIR	*			YUL-175-24	*	*	
10		Shop Work Order #	~	EWO-000013-2011	9324M40G0	731693		1-REPAIR	*			YUL-175-24	*	*	
		<													>
				Ro	ute Parts]						Acknowledg	e Receipt		
Print	Routin	g Slip								Plan Work Order					

Figure 3.59 Managing Intershop Routing

- 2. Use the drop-down list box to specify the **Ref. Doc #** against which you wish to retrieve the routing details.
- 3. Use the drop-down list box to specify the part from which the part is removed in the **Removed From** field.
- 4. Enter the Part # / Serial # for which you wish to retrieve routing details.
- 5. Enter the basis on which you wish to retrieve routing details in the **Search On** field, and click the **Search** pushbutton to retrieve the search results in the multiline.

In the Part Routing Details multiline,

- 6. Select Ref. Doc. Type and enter Ref. Doc. #.
- 7. Enter the **Part #**, **Mfr. Part #**, **Mfr.#**, **Serial #**, **Qty.** and the other details in the multiline.
- 8. Use the drop-down list box to specify the **Disposition** to specify the type of work performed on the part.
- 9. Use the drop-down list box to specify the work center from which the part must be routed in the **From Work Center #** field.
- 10. Enter the To Work Center # to which the part must be sent for repair.
- 11. Select From Work Center Area and To Work Center Area.
- 12. Enter the agency to which the part must be sent for repair in the **To Repair** Agency **#** field.
- 13. Enter the remarks pertaining to the location of the part in the Location Remarks field and any information relating to the routed parts in the Routing Details field.

- 14. Click the **Route Parts** pushbutton to move the parts from one work center to another work center or repair agency.
- 15. Click the **Acknowledge Receipt** pushbutton to acknowledge receipt of the part in the current location.

To proceed further,

- Select the **Print Routing Slip** link at the bottom of the page to print the routing slip of the routed part.
- Select the <u>Plan Work Order</u> link at the bottom of the page to plan the work order details.

3.8 Recording part consumption and return

This activity provides a consolidated summary and detailed information about all the pending parts, returned parts and the issued parts within the shop work order. You can return the main core / removed cores / issued parts to a specific warehouse. You can record part consumption details/ reconcile parts. You can also close the work orders.

3.8.1 Recording part consumption and return details

The system displays a high-level tree structure which enables you to view the main core details, task details, customer order details, part disposition / movement details, certificate details, part removal details, part issue and return details, reconciliation details, etc in different sections.

You can also return the main core / removed cores / issued parts to the specified warehouse, record part consumption details and close the work orders.

1. Select the **Record Part Consumption & Return** link under the **Shop Work Order** business component. The **Record Part Consumption & Return** page appears. *See Figure 3.60.*

🗎 R	ecord Part Consumption & Return						Ē	I x	i ← ?
Search Cr	riteria					1			
	Display Option SWO # Task # / Description	All Returned Parts		Select the Dis display the co part details in	splay Option to prresponding the multiline	Part # / Serial # [q. Part # / Description [mer # / Cust. Order # [
	Search On					Work Center #	YUL-100-01	-	
	Display Option	Top Assly, Work Orders	All Work Orders						
				Search					
Consolid	lated Part Return Details Return Main Co	re Return Removed	Cores Return Unconsum	and Parts Record	Direct Part Consumption			Currency	CAD
onsoliu	Recuiri Metallis Recuiri Mail Cu	Neculi Kellioveu	Reculti OffConsult	ieu Parto Reculu	Direct Pare Consumption				
Consoli	idated Part Return Details								
1 - 5 /	5						All	T	Q
WO #	Core Excess Return Status	Event #	Primary Work Center #		Part # / Serial #	Mfr. Part a	# Mfr. #	Serial #	Lot #
	Returned Parts								
	Returned Main Core								
CWO- 108719- 1015	SWO-Task:: 1PART	CWO-008719- 2015	YUL-100-01		0105MS:MMPEC	0105MS	MMPEC	DFD0909	
CWO- 108720- 1015	SWO-Task:: 1PART	CWO-008720- 2015	YUL-100-01		04689:P2783	04689	P2783	S4-04	
2WO- 108742- 2015	SWO-Task:: 1PART	CWO-008742- 2015	YUL-100-01		0105MS:MMPEC	0105MS	MMPEC	Τ2	

Figure 3.60 Returning parts

- 2. Enter the **Search Criteria** and select one of the following radio buttons in the **Display Option** field.
 - ▶ Top Assly. Work Orders Select this radio button to retrieve only those shop work orders that have at least one child work order and do not have a parent work order.
 - ▶ All Work Orders Select this radio button to retrieve all the shop work orders that match the search criteria.
- 3. Click the **Search** pushbutton to retrieve the shop work orders matching the search criteria.
- 4. Select the <u>Consolidated Part Return Details</u> tab to view the consolidated report of the part return details.

- 5. Select the <u>Return Main Core</u> tab to return main cores.
- 6. Select the <u>Return Removed Cores</u> tab to return removed cores.
- 7. Select the <u>Return Unconsumed Parts</u> tab to return issued parts.
- 8. Select the <u>Record Direct Part Consumption</u> tab to record the direct part consumption details

Consolidated Part Return Details

This tab provides a summary of all the pending parts, returned parts and the issued parts within each shop work order, in a tree structure. The tree displays the details based on the display option selected in the search criteria. You can retrieve the details of either the root work orders or all the work orders based on the selection of the radio button in the search criteria.

1. The **Consolidated Part Return Details** tab appears by default, on launch of the **Return Parts** page. *See Figure 3.61.*

F	Record Part Consumption & Return						그	← ?
Search C	Triteria							
	Display Optio	All Returned Parts	•		Part # / Serial #			
	Consolidated	aart roturn		Req. Pa	rt # / Description			
				Customer #	# / Cust. Order #			
	details display	ed nere			Work Center # YUL-100	-01 💌		
		s	All Work Orders					
			Search	1				
							Currency	CAD
Consoli	dated Part Return Details Return Main	Core Return Removed	Cores Return Unconsumed Parts	Record Direct Part Consumption				
	lideted Dest Determ Deteile							
							-	0
1 U	Core Excess Return Status	Event #	Primary Work Center #	Part # / Serial #		Mfr #	Serial #	Lot #
	Returned Parts	Even #	rinnary from center #		hint for the		ochar #	Lot
	B Returned Main Core							
CWO- 008719- 2015	SWO-Task:: 1PART	CWO-008719- 2015	YUL-100-01	0105MS:MMPEC	0105MS	MMPEC	DFD0909	
CWO- 008720- 2015	SWO-Task:: 1PART	CWO-008720- 2015	YUL-100-01	04689:P2783	04689	P2783	S4-04	
CWO- 008742-	SWO-Task:: 1PART	CWO-008742- 2015	YUL-100-01	0105MS:MMPEC	0105MS	MMPEC	Т2	
<		On clicking the folder, relevan displayed with shop work ord	e rows under each t tab pages are the details of the er					>

Figure 3.61 Consolidated Part Return Details

The system displays a tree structure with the details of the parts returned or pending for return under different folders, based on the 'Display Option' selected in the search criteria. For e.g. if the 'Display Option' is set as "All Parts", a tree structure is displayed with "All Parts" as the first-level node. The system displays the following folders below the first-level node, if details are available:

- a. Pending Return:
 - **Pending Main Core Return**: The system displays all the shop work orders that have main core pending for return.
 - **Pending Core Return**: All the shop work orders that have removed core pending for return, are displayed under this folder.
 - **Pending Excess Return**: All the shop work orders that have issued parts pending for return, are displayed under this folder.

- b. Returned Parts:
 - **Returned Main Core**: All the shop work orders that have the main core returned are displayed under this folder.
 - **Returned Core**: All the shop work orders that have the removed core returned, are displayed under this folder.
 - **Returned Excess**: All the shop work orders that have the issued parts returned, are displayed under this folder.

The tree structure is as shown below:

- All Parts
 - Pending Return
 - + Pending Main Core Return
 - + Pending Core Return
 - + Pending Excess Return
 - Returned Parts
 - + Returned Main Core
 - + Returned Cores
 - + Returned Excess

On clicking the '+' symbol in each folder, the system displays the corresponding values in the rows of the multiline, for each SWO # - Task # combination. On clicking any node under any of the folders marked '+', the system displays the respective tab, with the details of the Shop Work Order # whose node you clicked in the "Consolidated Part Return Details" tab.

The system displays the following details in the "Consolidated Part Return Details" multiline:

- **SWO #** for which the consolidated part details are displayed.
- Core Excess Return Status A tree structure is displayed with the details of the parts returned or pending for return, under different folders, based on the 'Display Option' selected in the search criteria.
- Event # of the shop work order.
- Primary Work Center # of the shop work order.
- Part # / Mfr. Part # Mfr. #, Serial #, Lot #, Qty. of the main core part in the shop work order.
- ➤ Final Repair Disposition of the main core, indicating the type of the work i.e. repair, replace, exchange, etc. to be performed on the main core, during the final stage (for example, after work order generation).
- Main Core Condition.
- Final Movement indicating the location where the main core must be returned after the entire work is completed.
- ▶ BER / NFF? Indicates whether the servicing of the component is beyond economic repair (BER) or not, or / whether any fault is found during inspection of the part.
- **Ready For Closure** which indicates whether the shop work order is ready for closure.
- Customer Order # and Customer #.

- **CoM Status** which is the status of Certificate of Maintenance (CoM) issued to the shop work order.
- Child WO Count, Parent Work Order # and Top Assly. Work Order #.

Returning main core

This tab provides the details of the main cores that are pending for return or returned, based on the details available in the "Consolidated Part Return Details" tab. If details are displayed under the 'Pending Main Core' folder or 'Returned Main Core' folder, the system retrieves and displays the details of the shop work orders that are listed below both the folders in this tab.

You can view details such as main core condition, stock status, final disposition / movement details of main core. You can return pending main core parts to the warehouse and close the work orders.

On clicking any node under the folders 'Pending Main Core Return' and 'Returned Main Core' in the "Consolidated Part Return Details" tab, the system displays the "Return Main Core" tab, with the main core details of the Shop Work Order that was retrieved under 'Pending Main Core' and 'Returned Main Core' folders in the "Consolidated Part Return Details" tab.



Consolidated Part Return Details Return Main Core	Return Removed Cores Return Unconsum	ed Parts Record Direct Part Consumption			
Main Core Details					
📢 🔞 [No records to display] 🕨 🍽 🛨 🗇 🗲	о Q Т Т,		🗄 🍽 🛡 🖷 🖩 🖩 🖬 🛛 🗛	v	Q
# 🖹 SWO # Part # / Serial #	Mfr. Part # Mfr. # Serial #	Lot # Qty. Retu	Im Classification	Return Stage	Main Core
1 🗉			~	Interim 👻	
Cine work order	close the shop work	Clin return Parts	ck this pushbutton to urn the main core pa	rts to	•
Manage Employee Work	Edit Maintenance Peturn		reve Certificate of Maintenance		
Generate Return Document Report	Corc Maintenance Return		assoc Certificate of Maintenance		

Figure 3.62 Returning main core

In the Main Core Details multiline,

- 2. Specify the **Return Classification** of the returned main core part.
- Select the Return Stage as 'Interim' or 'Final' to indicate whether main core return happens before or after closure / completion of the shop work order. You cannot select the option 'Final', if the shop work order is in "Planned" or "In-Progress" status.
- Select the Certificate Type indicating the type of the Certificate of Maintenance (CoM) issued against the shop work order, Certificate #, Certificate Date, and Expiry Date of the CoM.
- 5. Select the **Return Warehouse** where the main core must be returned.
- 6. Check the **Close work order** box below the multiline, if you wish to close the shop work order.
- 7. Select the **Return Warehouse #,** if you wish to return all the main cores selected in the multiline.
- 8. Click the **Return Parts** pushbutton to return the main core part to the warehouse.
 - Note: The system creates Maintenance Return for the main core part. If more than one row is selected in the multiline, the system



returns all the parts available in the selected rows, with one Return Document for each Warehouse # selected.

To proceed further,

- Select the Manage Employee Work link to manage work for the employee.
- Select the Edit Maintenance Return link to modify the part return details.
- Select the <u>Issue Certificate of Maintenance</u> link to issue certificate of maintenance for the shop work order.
- Select the **Generate Return Document Report** link to generate the material return document report.
 - Note: You must select one record in the multiline. You cannot generate return document reports for multiple returns. If you select multiple records in the multi-line, the system will generate report only for the last record which has a Return # reference.

Returning removed cores

This tab provides the details of the removed cores that are pending for return or returned, based on the details available in the "Consolidated Part Return Details" tab. The system retrieves and displays the details of the removals happened against the shop work orders that are listed below under the 'Pending Core Return' folder or 'Returned Core' folder, in the "Consolidated Part Return Details" tab.

You can also record the part consumption details, close the work orders and return the removed cores that are pending for return, to the warehouse.

On clicking any node under the folders 'Pending Core Return' and 'Returned Core' in the "Consolidated Part Return Details" tab, the system displays the "Return Removed Cores" tab, with the removed core details of the Shop Work Order # retrieved in the "Consolidated Part Return Details" tab.

Cons	solida	ted Part Retur	n Details Return Main Core	Return Removed Cores	Return Unconsumed Parts R	ecord Direct Part Consumption		
-)-Co	ore P	art Details —						
44	•	1 - 5 / 5 🕨	* + - 0 % * *	T T			Al III Al	ي ک
#	[**]	Task #	Rem. Part #	Rem. Mfr. Part #	Rem. Part Mfr. #	Removed MSN Serial#	Removed MSN Lot#	Removed Qty.
1	E	NST-000145-	0-0440-4-0005:36361	0-0440-4-0005	36361	AM-1		
2	E	NST-000147-	0-0440-4-0005:36361	0-0440-4-0005	36361	S-1		
3	E	NST-000147-	0-0440-4-0005:36361	0-0440-4-0005	36361	SM-1		
4	E	NST-002929-	V-COM-SER-AC-REV-OFI			V-COM-SER-AC-REV-OFI-CS2		
5	E	NST-002929-	V-TOOL-LOT-AC-REV-OFI				LOT-007164-2015	
6	E							
					s pushbutton to			
		<	_	record the	s pushbutton to ne part consumption			>
		<	Decent D	click this record the details	s pushbutton to ne part consumption	Close work order		>
		<	Record Pa	ecord the details	s pushbutton to	Close work order	Return Parts	>
Manag	je Emp	< all a layee Work	Record Pa	art Consumption	s pushbutton to ne part consumption	Close work order n Warehouse #	Return Parts	>

1. Select the **Return Removed Cores** tab in the **Return Parts** page. *See Figure 3.63*.

Figure 3.63 Returning removed cores

In the Core Part Details multiline,

2. Enter the **Reconcile Qty.** indicating the quantity of parts that are expected to be returned to the warehouse, but not returned. You must not enter this field, on any of the following conditions, if:



- The parameter 'Allow Reconciliation of Parts' is set as either "Not Allowed" or "Allowed for Reconcile Excess" for the SWO Type in the Define Process Entities activity of the Common Master business component.
- ▶ The Control Basis of the removed part is 'Returnable'.
- 3. Enter the **Reconciliation Remarks**, if the 'Reconcile Qty' is specified.
- 4. Select the **Return Classification** of the part returned.
- 5. Select the **Condition** of the removed part, as 'New', 'Overhauled', 'Serviceable' or 'Unserviceable'.
- 6. Select the **Certificate Type** indicating the type of the Certificate of Maintenance (CoM) issued against the shop work order, and enter the **Certificate #, Certificate Date**, and **Expiry Date** of the CoM.
- 7. Click the **Record Part Consumption** pushbutton to record the part consumption details. On clicking this pushbutton, the system computes the 'Pending Return Qty', using the formula given below:

Pending Return Qty. = Removed Qty. - Returned Qty. - Reconcile Qty.

- 8. Check the **Close work order** box, if you wish to close the shop work order.
- 9. Select the **Return Warehouse #**, if you wish to return all the removed parts selected in the multiline.
- 10. Click the **Return Parts** pushbutton to return the removed parts to the warehouse.
 - Note: The system creates Maintenance Return for the removed core part. If more than one row is selected in the multiline, the system returns all the parts available in the selected rows, with one Return Document for each Warehouse # selected.

To proceed further,

- Select the Manage Employee Work link to manage work for the employee.
- Select the Edit Maintenance Return link to modify the part return details.
- Select the <u>Issue Certificate of Maintenance</u> link to issue certificate of maintenance for the shop work order.
- Select the Generate Return Document Report link to generate the material return document report.
 - Note: You must select one record in the multiline. You cannot generate return document reports for multiple returns. If you select multiple records in the multi-line, the system will generate report only for the last record which has a Return # reference.

Returning unconsumed parts

This tab provides the details of the issued parts that are pending for return or returned, based on the details available in the "Consolidated Part Return Details" tab. The system retrieves and displays the details of the parts issued against the shop work orders that are listed below the 'Pending Excess Return' folder or 'Returned Excess' folder, in the "Consolidated Part Return Details" tab.

You can also record the part consumption details, close the work orders and return the unused parts that are pending for return, to the warehouse.

On clicking any node under the folders 'Pending Excess Return' and 'Returned Excess' in the



"Consolidated Part Return Details" tab, the system displays the "Return Unconsumed Parts" tab, with the issued part details of the work orders available under 'Pending Excess Return' and 'Returned Excess' folders in "Consolidated Part Return Details" tab.

1. Select the **Return Unconsumed Parts** tab in the **Return Parts** page. *See Figure 3.64*.

Ex	cess	Part Details							
•	0	1 - 10 / 122 🕟 脉	+ - 0 % 0 0	T Tx				Q v	
#	E	Task #	Req. Part #	Req. Mfr. Part #	Reg. Part Mfr. #	Issued Part #	Issued Mfr. Part #	Issued Part Mfr. #	
		3-ROU-00-MPD-03382	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
		3-ROU-00-MPD-03384	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
		3-ROU-00-MPD-03386	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
	E	3-ROU-00-MPD-03453	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
	E	3-ROU-00-MPD-03597	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
5		3-ROU-00-MPD-03701	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
7		3-50C-00-CMM-01947	2N2222:35895	2N2222	35895	2N2222:35895	2N2222	35895	
		3-50C-00-CMM-01947	2N2222:35895	2N2222	35895	2N2222:35895	2N2222	35895	
•		3-ROU-00-MPD-03877	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
10	E	3-ROU-00-MPD-03961	0-0050845-0:5N982	0-0050845-0	5N982	0-0050845-0:5N9	82 0-0050845-0	5N982	
< Record Part Consumption					Click this pushbutton to return the excess parts to Return Warehouse		Return Parts		
nage nera	Empl	oyee Work aum Document Report		Edit Mainten	ance Return		Issue Certificate of Maintenance		

Figure 3.64 Returning unconsumed parts

In the Core Part Details multiline,

- 2. Enter the **Used Qty.** indicating the actual quantity of parts used. If the 'Used Qty.' is not modified manually, the system displays the value as follows:
 - If the 'Issue Basis' is "Core-Returnable" and 'Non-Returnable', Used Qty = Issued Qty.
 - If the 'Issue Basis' is "Returnable", Used Qty = 0.
 - Note: The 'Used Qty.' must not be modified as '0', if 'Attached?' is "Yes".
- Enter the Reconcile Qty. Core indicating the quantity of core-returnable parts and Reconcile Qty. – Excess indicating the quantity of returnable parts that are expected to be returned to the warehouse, but not returned. You must not enter these fields, if:
 - The 'Control Basis' of the issued part is "Returnable".
 - The parameter 'Allow Reconciliation of Parts?' is set as either "Not Allowed" or "Allowed for Reconcile Core" for the SWO Type in the "Common Masters" business component.
- 4. Enter the **Reconciliation Remarks,** if the "Reconcile Qty-Core" or "Reconcile Qty-Excess" is specified.
- 5. Select the Return Classification of the part returned.
- 6. Select the **Condition** of the removed part, as 'New', 'Overhauled', 'Serviceable' or 'Unserviceable'.
- 7. Enter the **Expiry Date** of the CoM.
- Click the Record Part Consumption pushbutton to record the part consumption details. On clicking this pushbutton, the system computes 'Pending Return Qty. - Core' and 'Pending Return Qty. - Excess' using the formulae given below:



- a. Pending Return Qty. Core = Used Qty Returned Qty Core Reconciled Qty Core.
- b. Pending Return Qty. Excess = Issued Quantity Used Qty Returned Qty Excess Reconcile Qty Excess.
- 9. Check the Close work order box, if you wish to close the shop work order.
- 10. Select the **Return Warehouse #**, if you wish to return all the removed parts selected in the multiline.
- 11. Click the **Return Parts** pushbutton to return the excess parts to the warehouse.
 - Note: The system creates Maintenance Return for the issued part. If more than one row is selected in the multiline, the system returns all the parts available in the selected rows, with one Return Document for each Warehouse # selected.

To proceed further,

- Select the Manage Employee Work link to manage work for the employee.
- Select the Edit Maintenance Return link to modify the part return details.
- Select the <u>Issue Certificate of Maintenance</u> link to issue certificate of maintenance for the shop work order.
- Select the Generate Return Document Report link to generate the material return document report.
 - Note: You must select one record in the multiline. You cannot generate return document reports for multiple returns. If you select multiple records in the multi-line, the system will generate report only for the last record which has a Return # reference.

Recording direct part consumption details

This tab facilities the mechanic to record the part consumption details for a work order. The system generates a material request and creates an issue document for the part after the direct part consumption details are recorded. The system thus automates material request generation, issue generation and issue confirmation. On confirm, MR is closed and issue is confirmed.

1. Select the **Return Direct Part Consumption** tab in the **Record Part Consumption** & **Return** page. *See Figure 3.65*.

Consolidated Part Return Details	Return Main Core Return Removed Cores	Return Unconsumed Parts	Record Direct Part Cons	sumption			
Record Consumption Details ——							
(i) (i) (i) (i) (i) (i) (i) (i) (i) (i)	- 🗇 🛠 ¥ ¥.			2 🗎 × C 🖡	1 III AI	•	Q
# 🖻 <i>RS</i> SWO # 🔎	Seq. # Task # / Disc. # Ø	Part # 🔎 Mfr. Part	# 👂 Mfr. # 👂	Serial # 🔎	Mfr. Serial # 🔎	Lot # 🔎	Mfr. Lot # 🖇
1 🗉 AWO-000007-2012							
2							
<	cor	Confirm Consumption	rd Part Consumption				>

Figure 3.65 Returning unconsumed parts

In the Record Consumption Details multiline,

- 2. Enter the SWO # against which the part consumption is recorded.
- 3. Enter the **Seq #** of the task / discrepancy.
- 4. Enter the Task # / Disc. # against which the part is consumed.
- 5. Enter the Part #, Serial # and Lot # details.
- 6. Enter the **Used Qty.** of parts used while executing the shop work order.
- 7. Specify the Warehouse #, Zone #, Bin #, Stock Status and Condition of the part.
- 8. Enter any **Remarks** related to direct part consumption.
- 9. Check the **Confirm Consumption** box to confirm the part consumption.
- 10. Click the **Record Part Consumption** pushbutton to record the part consumption details.
 - 🎘 Note: You cannot modify / delete the records in "Confirmed" status.

3.9 Review part readiness log

This activity is a record of events which enables the shop supervisor to determine the TAT status for a given work order. He can also view and track details of its child work orders. The objective is to plan for completion of work within the scheduled project completion time and reduce the losses which might be incurred due to delay in completion of the work order.

In this page, you can update the status of the progress and modify work progress data like the Project Completion Date, user status and progress notes.

3.9.1 Reviewing part readiness log

1. Select the **Review Part Readiness Log** activity under the **Shop Work Order** business component. The **Review Part Readiness Log** appears. *See Figure 3.66.*



Figure 3.66 Reviewing part readiness log

In the Search Criteria group box,

- 2. Use the drop-down list box to specify the basis on which you wish to retrieve child work order details in the multiline whether, SWO# or Event #.
- 3. Click the **Get** pushbutton to retrieve the search results.

In the Progress Update group box,

- 4. Enter the date of completion of the work order in the **Proj. Completion Date** field.
- 5. Enter the **User Status** to indicate the level of completion of the work order and provide any comments pertaining to the progress of work in the **Progress Notes** field.

namo
6. Click the **Update Progress** pushbutton to save the details regarding work progression.

To proceed further,

• Select the Initiate Exchange / Swaps link to view exchange or swap details.

3.10 Managing teardown information

This activity provides a consolidated report on the details of the maintenance activities carried out on a part, details of the work order responsible for maintenance execution, customer instructions and observations, corrective action taken, if any, etc. The teardown report is generated only for work orders which are in "Completed" or "Closed" statuses. The report generated upon completion of the work order, is sent to the customer.

You can record details like reason for repair / removal of part as specified by the customer, repair summary details, corrective action active taken as part of maintenance execution, parameter details, warranty details of the part, modifications done on the part and other observations / findings reported for the part, apart from the reason specified by the customer.

You can also retrieve the details of the parts consumed and the parts attached / replaced / removed as part of the work order.

Note: You cannot generate a teardown report for the work orders with 'Job Type' defined as "Make".

You can retrieve the following details using this page:

- Work order details.
- Main core details.
- > Details of maintenance activities instructed by the customer.
- Actual Maintenance activities carried out on the part.
- Parameter details of the part.
- Reason for repair (RFR) of the part, as specified by the customer.
- Observations / findings reported for the part, other than those specified by the customer.
- Warranty details of the part.
- Reason for removal of the part.
- Details of corrective action recorded for the discrepancy reported against the work order.
- Details of the parts consumed.
- > Details of parts attached / replaced / removed as part of the work order.
- 1. Select the Manage Teardown Information activity under the Shop Work Order business component. The Manage Teardown Information page appears. See Figure 3.67.



Manage Teardown In	formation					🗐 그 🖶 다 🗲	? 🛛
- Work Order Details							
Work Orde	# # P AWO-000053-2016	Get Details	Primary Work Center # 1	35-20		Event # AWO-000053-2016	
Refer	ence #		Revision #			Tracking #	
Jo	b Type Compone		Customer #		Custon	ner Order #	
+ Main Core Details							
Customer Instructions	Specify	the work order		Maintenance Done			
	number	and click "Get					
Repair Process Code	Bench Ched Details"	nushbutton		Repair Process Code	Overhaul 💌		
_	Inspect			_	Inspect 📃 Repair 👿 Overhaul	Modify	
Confirm Customer RFR		 Other Findings 		- Warrant	y Details		
(Yes		Yes		Wty. Seal 💌	Wty Notes	
0	No No		No		Wty. Claim Denied 🔻		
Component Times	_		0				
<pre>{(() 1 -1/1) >>></pre>	+ 0 0 0 T T			と回回ス	E 🗄 🍽 🔮 🖷 🖷 🔳 🗛	T	Q
# 🗉 Parameter 🔎	Parameter Description	UOM	Since New Since Ovehaul	Since Repair	Since Inspection	Since Last Shop Visit	
1 🗉 FH	Flying Hour	HRS	420.00	120.00	0.00	0.00	
2							
			Ente	the details of			
<			Line				>
Customer Deserve for Demo			Corre	ctive action taken			
Customer Reason for Remo	VdI		adaii	nst discrepancy			
Reason for Repair Co	de 🛛 🔻	Tested prio	r to Tear Down Yes				
Customer Order Deta	ils						
Other Findings							
Other Findings Prima	ry 💌	Other Find	ings Secondary		Details		
Repair Summary Details —				Corrective Action			
- -	A			-			
Condition Found	0	Failure Description	•	Description		Certificate #	
				Exec Padility	Internal 🔹	Serviced by	
and the state				lest Equipment		lest Hours	
Mod Details	Click this pu	shbutton	 Document De 	tails			
	to print the t	eardown	Eng Doc #	Rev # Subject	MCR # Rev # Task #	Task Desc. Exec. Status	
	to print the t		~				
	recon						
Terry 11			Data and an a	. pag		www.Wernerky.Conf	
Issued by	00041383		Date 2016-27-05 18:26:2	2	N	ew warranty sear	
Approval #							
	Update		Print	View Par	rts	View Part Replacement Details	
	Created by DMUSER			Created Date			

Figure 3.67 Managing teardown report

In the Work Order Details group box

- 2. Enter the Work Order # for which you wish to generate the teardown report.
 - Note: You must enter only the work orders that are in "Closed" or "Completed" status.
- 3. Click the **Get Details** pushbutton to retrieve the work order details.

In the Main Core Details group box, the system displays the details of the main core part.

In the Customer Instructions group box,

- 4. Use the **Repair Process Code** drop-down list box to specify the repair process code that defines various maintenance activities to be carried out on a part, based on the instructions from the customer. The following check boxes appear checked selectively based on the **Repair Process Code** selected.
 - **Inspect** Indicates that the customer has instructed to perform inspection of the part.
 - **Repair** Indicates that the customer has instructed to perform repair of the part.
 - **Overhaul** Indicates that the customer has instructed to perform overhaul of the part.
 - **Modify** Indicates that the customer has instructed to modify the part.

In the Maintenance Done group box,

- 5. Use the **Repair Process Code** drop-down list box to specify the repair process code that defines various maintenance activities that are actually carried out on a part. The following check boxes appear checked selectively based on the **Repair Process Code** selected.
 - Inspect Indicates that inspection of the part has been carried out.
 - Repair Indicates that repair of the part has been carried out.
 - Overhaul Indicates that overhaul of the part has been carried out.
 - Modify Indicates that the part has been modified.

In the Component Times group box,

- 6. Select the **Parameter** of the part on which the work order is created.
- 7. Enter the **SV** indicating the cumulative parameters of the aircraft or component since its last visit in the shop.
- 8. Enter the **SO** indicating the cumulative parameters of the aircraft or component since its last overhaul in the shop.
- 9. Enter the **Total Time** until which the parameters are updated or computed.
- 10. In the **Confirm Customer Reason for Repair (RFR)** group box, select the radio button 'Yes' to confirm the reason specified by the customer for repair of the parts. Select 'No' if you wish to report observations / findings other than the reasons specified by the customer for repair of the parts.
- 11. In the **Other Findings** group box, select the radio button 'Yes' or 'No' to indicate whether observations / findings, other than the findings of the customer, are reported for the part or not.
- In the Warranty Details group box,
- 12. Use the **Wty. Seal** drop-down list and select the state of the warranty seal on the part delivered, as 'Intact', 'Broken' or 'No Seal'.
- 13. Use the **Wty. Claim** drop-down list to specify whether warranty claim is accepted, denied or not applicable for a part.
- In the Customer Reason for Removal group box,
- 14. Select the code identifying the reason for repair of the part in the **Reason for Repair Code** drop-down list box.
- 15. Use the **Tested prior to Tear Down** drop-down list to indicate whether the reason specified by the customer for the repair of the part, is verified before generating the teardown report. You can select "Yes" or "No".
- 16. Enter the **Failure Description** of the part, and enter the **Reason for Removal** of the part.

In the Other Findings group box,

- 17. Enter the **Other Findings Primary** and **Other Findings Secondary** indicating the primary and secondary observations reported for the part, other than the reason / observation specified by the customer.
- 18. In the **Repair Summary Details** group box, enter the **Condition Found** while executing the corrective action against the discrepancy reported for the work order.

In the **Corrective Action** group box,

- 19. Enter the **Description** of the corrective action taken against the discrepancy reported for the work order.
- 20. Use the **Exec Facility** drop-down list to specify the location where the work order is executed, as 'Internal' or 'External'.
- 21. In the **Serviced by** field, enter the name of the user who serviced the part, as specified in the correction action recorded against the discrepancy.
- 22. Enter the **Certificate #** issued for the work center in which the work order is executed.
- 23. Enter the **Test Equipment** used for performing the corrective action on the part and the **Test Hours**.
- In the Mod Details group box,
- 24. Enter the **Mod Embodied** indicating the details regarding the modification done on the part.
- In the Report Details group box,
- 25. Enter the **Date** and time at which the teardown report is issued.
- 26. Check the **New Warranty Seal** box to indicate that new warranty seal is provided for the part.
- 27. Enter the **Approval #** of the teardown report.

To proceed,

- 28. Click the **Update** pushbutton to update the teardown information.
 - Note: The system generates the tracking # for the teardown report, based on the numbering logic and the default numbering type identified against the transaction "Teardown Report" in the "Document Numbering Class" business component. If the tracking number is already generated, the system generates the Revision # of the teardown report.
- 29. Click the **Print** pushbutton to print the teardown report.
- 30. Click the **View Parts** link to generate the report containing the details of the parts consumed.
- 31. Click the **View Replacement Details** link to generate the report containing the details of the parts that are attached / removed / replaced.

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3.11 Issue certificates

This activity enables you to approve and print certificates. Also, you have the option to reprint approved certificates. With the help of this page, Certificate of maintenance, Certificate of Conformity and Certificate of Calibration can be issued. You can make use of the different tabs to tag a part regarding its condition like for example serviceable, LTU, scrap and so on.

3.11.1 Issuing certificates

1. Select the **Issue Certificate** activity under the **Shop Work Order** business component. The **Issue Certificate** page appears. *See Figure 3.68.*

Issue Certificates			÷ 🗧 🗕 ? 🗔
	and another and a thread and a structure		
Part Id Tag Certificate of Maintenance Certificate of C	onformicy Certificate of Calibration		
- Select Action			^
Oreate Tag Reprint Tag Replace Tag			
Reference Type	Work Order # V Reference # AWO-000004-2011	Get Details	
Part Tag Details			
Part Tag #	Printed?	Part Tag Status	
Numbering Type PTAG 💌	# of Copies	Replaced Tag #	
Main Core Details			
Part # / Serial # 0-0033466-0:2D671	Serial #		
Lot #	Qty. 10.00		
Component #	Multiple Cores? Yes	Part Description TERMINAL	
Reference Details			
Work Order # AWO-000004-2011	Order Description Remove for Maintenance	Event # CO-000105-2011	
Customer # 400007	Customer Order # CO-000105-2011	Customer PO # CPO-1	
Work Perfomed 🔍	Involved in Rework	Final Disposition 1-REPAIR	
- Additional Details			
Comments	<u>^</u>	Print Option All Items on one Certificate	
	~		
Specify the code	V		
Reason for Rejection	0	Click this link to view the	
Document Attach against the login user		associated document	
	Upload Documents View Associated Doc. Attachments	attachments	
- Authorization Details			
Employee Code Q 2024/202	Employee Name SENECHAL DOMINIC	Primary Worksantar # 100.00	
License # 00041	Authorization #	Authorization Ref #	
Skill Code 01	Issued Date 2016-27-05 18:30:54		
Save	Preview Approved & Print	Cancel	
Created by	Modified by	Approved by	
Created Date	Modified Date	Approved Date	~

Figure 3.68 Issuing Certificates

- 2. Select the Part Id Tag tab to tag the condition of the part.
- 3. Select the Certificate of Maintenance tab to issue Certificate of Maintenance.
- 4. Select the <u>Certificate of Conformity</u> tab to issue Certificate of Conformity.
- 5. Select the <u>Certificate of Calibration</u> tab to issue Certificate of Calibration.

In the Document Attachment Details multiline,

- 6. Enter the name of the file relating to the certificate in the **File Name** field.
- 7. Select the **Upload Documents** link to upload the documents.
- 8. Select the **View Associated Doc. Attachments** link to view the associated document attachments.

In the Authorization Details group box,

- 9. Enter the **Employee Code**, Primary Work Center, License #, and specify the Skill Code of the employee.
- 10. Click the Save pushbutton to save the certificate details.
- 11. Click the **Preview** pushbutton to preview the certificate before approval / printing.
- 12. Click the Approved & Print pushbutton to approve and print the certificate.
- 13. Click the **Reprint** pushbutton to reprint the certificate.
- 14. Click the **Cancel** pushbutton to cancel the certificate.

Part ID Tag

This section enables you to tag a condition to the part, whether the part is serviceable, unenviable, scrap, LTU and so on irrespective of the status of the work order. You can view source document details and customer details.

1. The **Part ID Tag** tab appears by default, on launch of the **Issue Certificates** page. *See Figure 3.66.*

In the Select Action group box,

2. Select the **Create Tag** radio button to create a tag for the part for which certificate is to be issued.

Or

3. Select the **Reprint Tag** radio button to reprint the certificate for the part.

Or

- 4. Select the **Replace Tag** radio button to replace a tag that is already created.
- 5. Use the drop-down list box to specify the reference against which you wish to retrieve details in the **Reference Type** field.
- 6. Enter the **Reference #** of the document for the shop work order and click the **Get Details** pushbutton to retrieve the search results.

In the Part Tag Details group box,

7. Use the drop-down list box to select the **Numbering Type** of the part for which certificate is to be issued.

In the Reference Details group box,

- 8. Use the drop-down list box to specify the Work Performed.
- 9. Check the **Involved in Rework** check box to indicate work other than those specified in the work order, example oil change, refurbishing etc
- 10. Use the drop-down list box to specify the work performed on the part in the final stage in the **Final Disposition** field.

In the Additional Details group box,

- 11. Enter any remarks associated with the part tag in the **Comments** field and provide the **SB/AD** and the **Reason For Rejection** fields.
- 12. In the **Print Option** drop-down list box, you can select 'All Items on one Certificate' to generate a single certificate containing all the Part Serials / Part



Lots available in the Work Order, or 'One Certificate per Item' to generate multiple certificates depending on quantity of the work order.

Note: The 'Print Option' drop-down list box is displayed only if Multiple Cores is set as 'Yes' for the work order.

Issuing certificate of maintenance

In this section you will be able to provide details of the certificate of maintenance, like reference and authorization details.

1. Select the **Certificate of Maintenance** tab in the **Issue Certificates** activity of the **Shop Work Order** business component. *See Figure 3.69.*

★ 🗎 Issue Certificates			과 를 다 ← ?		
Part Id Tag Certificate of Maintenance	Certificate of Conformity Certificate of Calibration				
Crasta Cartificata Report Cartificata De	alara Cartificata				
Create Ceruinate O Reprint Ceruinate O Re	eference Type Work Order # Reference #	Get Deta	ik		
- Issue Details		~ 000000			
Certificate #	Numbering Type	Certificate Stal	hie		
Printed?	# of Copies	Replaced Cert	t #		
Paper Doc #		×			
Main Core Details					
Part #	Indicates the number	of conies			
Mfr. #	of certificates printed a	Seria Seria	#		
Lot #	the shop work order	againer			
Mfg. Serial #	the shop work order.	C C C C C C C C C C C C C C C C C C C	2ty		
Component #		Part Descrip	tion		
Reference Details					
Work Order #	Order Description	Even	t #		
Customer #	Customer Order #	Customer PC) #		
Ref Doc #/Rev #	Ref Doc #/Rev # End Disposition 1-REPAIR T				
Shelf Life Exp Date Status Advance	ce Exchange	r Overhaul Modify Inspected/Te	ested New Prototype		
- Certificate Details					
Certifying Remarks		^			
		\sim			
Eligibility					
# Certificate Type Rend?	2	All + Certifying Authority	Pend?		
1 8130-3		1 Aveos	requ:		
2 AIR CARRIER 8130-3		2 CAAC	E		
3 ARWE	Indicates whether printing is	3 CASE			
4 As Per LaserFiche	required for the particular	4 EUROPEAN AVIATION SAFETY AGENCY			
5 CAAC AAC-038	type of certificate	5 FEDERAL AVIATION AUTHORITY			
	type of continents.				
+ Document Attachment Details					
Authorization Details					
Save	Preview Approved & P	rint	Cancel		
Created by	Modified by		Approved by		
Created Date	Modified Date		Approved Date		

Figure 3.69 Certificate of maintenance

In the Select Action group box,

2. Select the **Create Certificate** radio button to create a certificate for the part for which certificate is to be issued.

Or

3. Select the **Reprint Certificate** radio button to reprint the certificate for the part.

Or

- 4. Select the **Replace Certificate** radio button to replace the certificate for the part.
- 5. Use the drop-down list box to specify the reference against which you wish to retrieve details in the **Reference Type** field.



- 6. Enter the **Reference #** of the document for the shop work order and click the **Get Details** pushbutton to retrieve the search results.
- 7. Click the Get Details pushbutton to retrieve the search details.

In the Issue Details group box,

8. Use the drop-down list box to select the **Numbering Type** of the part for which certificate is to be issued and enter the **Paper Doc #**.

In the Reference Details group box,

- 9. Enter the **Ref Doc # / Rev #** associated with the component for which you wish to issue the certificate and the **Rev Date**.
- 10. Check the **Involved in Rework** check box to indicate work other than those specified in the work order, example oil change, refurbishing etc.
- 11. Use the drop-down list box to specify the work performed on the part in the final stage in the **Final Disposition** field.
- 12. Enter the storage life of the part in the Shelf Life Exp Date field.
- 13. Use the drop-down list box to specify the status of the work performed on the component in the **Work Status** field.
- 14. Select one or more of the following check boxes to indicate completion of maintenance work on the part.
 - Inspect
 - Repair
 - Overhaul
 - Modify
 - Inspected/Tested
 - New
 - Prototype
 - Tested
 - Default selection of checkboxes: If the process parameter "Autoselection of Work Status for work orders with Job Type 'Make' during issue certificates?" under the entity type Shop Work Order and entity User-Defined Values in the Define Process Entities activity of Common Master is '1', the Inspect, Repair, Overhaul, and Modify checkboxes remain selected on launch of the page depending on Work Status/Repair Process Code of the work order. However, if the process parameter is '0', these boxes will be unchecked on launch of the activity.
 - Note: 1) The maintenance work duly completed as indicated by check boxes will appear under Status/Work in the COM report. 2) You must select the New and Prototype checkboxes for shop work orders with the job type 'Make' only.

In the Certificate Details group box,

- 15. Enter **Certifying Remarks** associated with the certificate of maintenance and provide the **Eligibility** of the certificate for the associated component.
- 16. Check the **Reqd?** check box in the multiline to indicate whether printing is required for the particular type of certificate against the **Certificate Type**



displayed in the multiline.

Dual Authentication feature

You can enable Dual Authentication for the **CoM Issue** action in the **Configure Dual Authentication** activity of **Smart Card Interface**. If Dual Authentication has been enabled for the Issue CoM action, the Certificate of Maintenance tab will vary in the following way:

- ▶ In the Create Certificate and Replace Certificate modes, the following pushbuttons will be available, if CoM has not been created for the SWO or if CoM is in the Fresh status:
 - Save
 - Preview
 - Approve
 - Cancel
 - Print
- On the launch of the tab, all the above buttons except the **Print** button will be displayed in the tab.
- ▶ Upon authentication of the shop work order, the **Print** button alone will appear in the tab, since Print? will be 'No' at that point of time.
- ▶ In the **Reprint** mode, only the **Reprint** button will be available for users
- The Print Option drop-down list box will display "All Items on One Certificate" as the default option. The option "One Certificate per Item" will not appear in the drop-down list box, if "Multiple Cores?" is set as 'No' for the work order.
- The entire **Main Core Details** section will display regardless of the job type of the work order or data availability

User Authentication procedure

1. On click of the **Approve** pushbutton, the **User Authentication** popup opens up. *See Figure 3.70.*

User Authentication		-	₽	?	[ō	x
Employee # Emp. Name	00041383 S, DOMINIC					
Login Password PIN]	
Authenticate						

Figure 3.70: User Authentication popup

- 2. Enter the following login credentials for successful generation of the certificate.
 - The **password** for the login user of Ramco Aviation

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- The **PIN** as allotted to the employee in the "Set/Change PIN" activity.
 - Note: Based on Authentication Type set for the Application Group, Entity and Action combination in the "Configure Dual Authentication" activity of Smart Card Interface, you are required to enter either Login Password or PIN or both to proceed with task signoff and Issue of CoM. See table below

Authentication Type for desired Action	Field (s) available
Login Password	Login Password
PIN	PIN
Login Password & PIN	Login Password and PIN
Not Required	Not Applicable (The Dual Authentication window does not open up)

- 3. Click the **Save** pushbutton.
 - Note: However, in situations when the task sign-off/void requires dual authentication and PIN is not defined for Employee #, the Set/Change PIN screen opens up to facilitate the user to define dual authentication credentials. Subsequent to setting of PIN and password, the user can sign-off tasks. Modification/update of execution comments and corrective action may also require user dual authentication depending on the process parameter definition in the Define Process Parameter activity in Common Master. For further details on Dual Authentication, refer to online help for Smart Card Interface.

Issuing certificate of conformity

This section enables you to provide a confirmation of working of the parts serviced just like a warranty. This section enables you to provide an assurance that the serviced part will meet certain given specifications.

1. Select the **Certificate of Conformity** tab in the **Issue Certificates** activity of the **Shop Work Order** business component. *See Figure 3.71*.

★ 🗎 Issue Certificates			☆ 클 ☆ ← ?					
Part Id Tag Certificate of Maintenance Certificate of	Conformity Certificate of Caller							
- Select Action	Indicates w	vhether multiple						
Create Certificate Reprint Certificate Replace Certific	ate parts are a	ssociated to the						
Reference Typ	work Order # 👻 Same work	Get Details						
- Issue Details								
Certificate #	Printed? # of Copies	Certificate Status Peplaced Cert #						
Main Core Details	# Of Copies	Replaced Cert #						
Part #	Serial #		Select to generate					
Mtr. #	Mfr. Part #	Senal #						
Mfg. Serial #	Mfg Lot #	Otv	Conformance for a					
Component #	Multiple Cores?	Part Description	component that is					
Reference Details			repaired or for new part					
Work Order #	Order Description	Event #						
Customer #	Customer Order #	Customer PO #						
Ref Doc #/Rev #	Rev Date	Type of Work	Advance Excha					
Issued to Customer PO # 🔻	Issue Doc #	Final Disposition	1-REPAIR 🔻					
New	Prototype	Modified	Fabricated					
- Certificate Details								
Certifying Remarks		\bigcirc	Print MRO C of C Print Part 21 C of C					
Document Attachment Details								
File Name 👂	Upload Documents View Associated Doc. At	tachments						
Authorization Details								
Employee Code 👂 00041383	Employee Name SENECHAL, DOM	INIC Primary Workcenter #	10 💌					
License # 00041	Authorization #	Authorization Ref #						
	Issued Date 2017-07-07 12:3	54:44 IIII	Cancel					
Save Created by	Approved & Pl Modified by		Approved by					
Created Date	Modified Date		Approved Date					
	Houned bate							

Figure 3.71 Certificate of conformity

In the Select Action group box,

2. Select the **Create Certificate** radio button to create a certificate for the part.

Or

3. Select the **Reprint Certificate** radio button to reprint the certificate for the part.

Or

- 4. Select the **Replace Certificate** radio button to replace the certificate for the part.
- 5. Select the **Reference Type** and enter the **Reference #** of the document for the shop work order and click the **Get Details** pushbutton to retrieve the search results.
- 6. Use the drop-down list box to specify the **Numbering Type** of the part for which certificate is to be issued in the **Issue Details** group box.

In the Reference Details group box,

- 7. Enter the **Ref Doc # / Rev #** associated with the component for which you wish to issue the certificate and the **Rev Date**.
- 8. Use the drop-down list box specify the type of work performed in the **Type of Work** field and the reference document based on which the document is issued, in the **Issued To** field.
- 9. Enter the number identifying the document issued in the **Issue Doc #** field.
- 10. Use the drop-down list box to specify the work performed on the part in the final stage in the **Final Disposition** field.
- 11. Select the checkboxes in the "Reference Details" group box to indicate the

work status of 'Make' shop work orders.

- Note: You must select the following checkboxes for shop work orders with the job type 'Make' only.
 - New
 - Prototype
 - Modified
 - Fabricated
- 12. Enter **Certifying Remarks** pertaining to the certificate of conformity in the **Certificate Details** group box.
- Select the radio button 'Print MRO C of C' if you wish to generate "Certificate of Conformance (MRO)" for a component that is repaired or the radio button 'Print Part 21 C of C' to generate "Certificate of Conformance (Part 21)", when a new part manufactured.

Issuing certificate of calibration

This section enables you to record Certificate of Calibration issued to the customer as per regulatory requirements DGCA (Director General of Civil Aviation) and FAA (Federal Aviation Administration).

1. Select the **Certificate of Calibration** tab in the **Issue Certificates** activity of the **Shop Work Order** business component. *See Figure 3.72*.



Part Id Tag Certificate of Maintenance Certificate of G	Conformity Certificate of Calibration		
Select Action			
) Create Certificate 🔘 Reprint Certificate 🔘 Replace Certific	cate		
Reference T	VPE Work Order # Reference # CWO-000067-2011	Get Details	
Issue Details			
Certificate #	Printed?	Certhcate Status	
Numbering Type COC	# or copies		mher
		identified for	
Part # / Serial # 238D1016-509:51563	Serial # K59		Jouping
Component # C3012	Multiple Cores? No	Part Description OIL QTY INDICATO	
Reference Details			
Work Order # CWO-000067-2011	Order Description GI-000205-2011	Event # CO-000105-2011	
Customer # 400007	Customer Order # CO-000105-2011	Customer PO # CPO-1	
Model #	Customer Asset #		
Calibration Information			
Calibration Date 2011-09-12	Recommended Due Date		
Environmental Conditions	Last.		
-			
A Descrived Condition	Relative Humidity 30% to 60%		
Chen Eindings	As Returned Condition IN-TOLERANCE		
Shop rindings			
Conditions Found	Corrective Action	^	
	\checkmark	\checkmark	
lditional Comments			
	\checkmark		
Measurement Standards Used			
📢 🖣 [No records to display] 🕨 🗰 🕂 – 🗇 🐇 ł	O O T T.		Q
# Facility Object # Description	Cal Date Cal.Due Date		
	1		
I he date on which the			
facility object part was	S (
Document Attachme calibrated	S		
Document Attachment at	S Upload Documents View Associated Doc. Attachments		
Authorization Details	S Upload Documents View Associated Doc. Attachments		
Authorization Details	S Upload Documents View Associated Doc. Attachments Employee Name SENECHAL, DOMINIC	Primary Workcenter # 100-03	
Ine date of which the calibrated Document Attachme facility object part was calibrated Authorization Details Employee Code P Licence # 00041383	S Upload Documents View Associated Doc. Attachments Employee Name SENECHAL, DOMINIC Authorization #	Primary Workcenter # 100-03 Authorization Ref #	
Authorization Details Employee Code P 00041383 Licence # 00041 Sidi Code 01 •	S Upload Documents View Associated Doc. Attachments Employee Name SENECHAL, DOMINIC Authorization # Issued Date 2016-27-05 18:42:57	Primary Workcenter ≠ 100-03 ▼ Authorization Ref ≠	
Authorization Details Employee Code P 00041383 Licence # 00041 Skill Code 01 \v	S Upload Documents View Associated Doc. Attachments Employee Name SENECHAL, DOMINIC Authorization # Issued Date 2016-27-05 18:42:57 IIII Preview Approved & Print	Primary Workcenter # 100-03 Authorization Ref # Cancel	
Authorization Details Employee Code P 00041383 Licence # 00041 Skill Code 01 • •	S Upload Documents View Associated Doc. Attachments Employee Name SENECHAL, DOMINIC Authorization # Issued Date 2016-27-05 18:42:57 Preview Approved & Print Modified by	Primary Workcenter # 100-03 Authorization Ref # Cancel Approved by	

Figure 3.72 Certificate of calibration

In the Select Action group box,

2. Select the **Create Certificate** radio button to create a certificate for the part for which certificate is to be issued.

Or

3. Select the **Reprint Certificate** radio button to reprint the certificate for the part.

Or

- 4. Select the **Replace Certificate** radio button to replace the certificate for the part.
- 5. Use the drop-down list box to specify the reference against which you wish to retrieve details in the **Reference Type** field.
- 6. Enter the **Reference #** of the document for the shop work order and click the **Get Details** pushbutton to retrieve the search results.
- 7. Use the drop-down list box to specify the **Numbering Type** of the part for which certificate is to be issued in the **Issue Details** group box.

In the Reference Details group box,

8. Enter the **Model #**, identifying the base aircraft model on which the task can be performed.

9. Enter the **Customer Asset #**, identifying the reference asset from the customer, example Facility Object.

In the Calibration Information group box,

- 10. Enter the date on which the last task was compiled on the main core in the **Calibration Date** field.
- 11. Enter the next due date of the task performed on the main core for calibration in the **Recommended Due Date** field.
- In the Environmental Conditions group box,
- 12. Enter the **Temperature** and **Relative Humidity** in which the calibration was done.
- 13. Enter the As Received Condition and As Returned Condition of the component.
- In the Shop Findings group box,
- 14. Enter the **Condition** of the main core part associated with the work order.
- 15. Enter a description of the action to be taken, to resolve the discrepancy in the **Corrective Action** field and provide any **Additional Comments** pertaining to the certificate of calibration.
- In the Measurement Standards Used group box,
- 16. Enter the **Facility Object** used for executing maintenance jobs on the component and provide a **Description** of the facility object.
- 17. Enter the date on which the facility object part was calibrated in the **Cal Date** field.
- Enter the next due date of the facility object part for calibration in the Cal. Due Date field.

3.12 Reviewing work execution

This activity provides a consolidated report of all the details of the shop work order, its child work orders and the associated tasks. You can select the shop work order for which you wish to retrieve the details, by selecting the part # / serial #, customer # / customer order #, execution status of task / work order, estimation status of task / work order, job type, etc in the "Shop Work Order" business component.

You can acquire a detailed view of the following information about the work order / task, in this activity:

- Main core details, workscoping details of the work order.
- Work order execution details.
- Part disposition / movement details.
- Contract details.
- Warranty details.
- Part estimates / actuals recorded against the tasks.
- Resource estimates / actuals recorded against the tasks.
- Removed Part status
- Employee timesheet details.
- Observations / discrepancies recorded against the tasks in the work order.
- Comments e.g. sign-off comments, workscoping comments, employee comments and execution related comments recorded against all the tasks in the work order.
- Status log details of the task / work order.
- Attachment / removal / replacement of parts.
- Certificates issued against the work order.
- Parameters recorded against the part # / serial # on which the task is executed.
- Details of additional cores associated to the existing main core.
- Hold details of task / work order.
- Associated purchase order details.
- 1. Select the **Review Work Execution** link under the **Shop Work Order** business component. The **Review Work Execution** page appears.
- 2. Specify the Search Criteria.
- 3. Select the **Display Option** as 'Top Assly. Work Orders' if you wish to retrieve only those shop work orders that do not have a parent work order, or 'All Work Orders' if you wish to retrieve all the shop work orders that match the search criteria.
- 4. Click the **Search** pushbutton to retrieve shop work orders in the multiline.

3.12.1 Viewing work order details

1. Select the hyperlinked SWO # in the multiline in the Review Work Execution page. The View Work Order Details page appears. See *Figure 3.73*.





Figure 3.73 viewing work order details

Work Order Tree

The system displays the "Work Order" section in which the work order and its child work order are displayed in the following format:

- 1. SWO # :: Work center # :: Order Desc. :: Part # :: Serial # :: Part Desc. :: Status
 - 1.1 SWO # :: Work center # :: Order Desc. :: Part # :: Serial # :: Part Desc. :: Status

1.1.1 SWO # :: Work center # :: Order Desc. :: Part # :: Serial # :: Part Desc. :: Status

- 1.2 SWO # :: Work center # :: Order Desc. :: Part # :: Serial # :: Part Desc. :: Status
- 2. Select a in the tree to retrieve and display the work order details in the respective tabs in the right pane.

Tabs in right pane

- 3. Select the <u>Order Details</u> tab in the right pane, to view the work order details.
- 4. Select the Order Execution Details tab to view details regarding the execution of the work order.
- 5. Select the <u>Part Disposition & Movement Details</u> tab to view disposition and movement details of the part.
- 6. Select the <u>Reference Details</u> tab to view customer order and other details of the work order.
- 7. Select the <u>Contract Terms & Conditions</u> tab to view the contract information of the work order.
- 8. Select the <u>Removal & Warranty Details</u> tab to view details regarding removal of the part, warranty, and other ownership details of the work order.

Display Option

- 9. Check the **Display Child Orders check box** in this section, to display the task details of child work orders, along with the task details of the main work order in the multiline.
- 10. Click the **Get Details** pushbutton to retrieve the multiline details relevant to link selected in the left pane.

Multiline links in left pane

The system displays the following links in the left pane, which can be invoked to display various details of the shop work order, in the respective multiline in the right pane.

- Select the View Order Details link to view the order details in the multiline.
- Select the View Part Estimates vs Actuals link to view the part estimates / actual details.
- Select the <u>View Resource Estimates vs Actuals</u> link to view the resource estimates / actual details.
- Select the View Removed Part Status link to view the status of the removed parts.
- Select the <u>View Employee Timesheet Records</u> link to view the employee timesheet records.
- Select the <u>View Shop Findings</u> link to view the observations and discrepancies recorded against the work order.
- Select the <u>View Comments</u> link to view the details of any comments recorded against the tasks in the work order.
- Select the <u>View Sign-Off Details</u> link to view details of the sign-off comments recorded against the tasks in the work order.
- Select the View Status Log link to view the status log details.
- Select the View Replacements link to view the replacement details of the main core.
- Select the <u>View Work Exec. Certificates</u> link to view the details of the certificates issued against the work order.
- Select the <u>View Parameters Recorded</u> link to view the parameters details of the part / serial.
- Select the <u>View Addl. Main Cores</u> link to view the additional main core details associated to the work order.
- Select the View Work Hold link to view the hold details of the tasks in the work order.
- You can also select the additional link **View Associated Service Purchase Orders** link if you wish to view the associated purchase order details.

Important Dates

The system displays the following dates in this section:

- Plan St. Dt, Plan End Dt., Actual St. Dt and Actual End Dt.
- Projected Completion Date, Target Date, Prom. Del. Date and Cust. Receipt Date.

Viewing order details

You can view the following details of the shop work order in this tab.

- Order Details SWO #, Order Description, Status, Job Type, Primary Work Center, Event #.
- Main Core Details Part # / Mfr. Part # Mfr. #, Serial #, Component #, Multiple Cores?, Main Core Status, Stock Status, Part Description.

- Part/Serial/Lot modification details Modified Part #, Modified Mfr. Part #, Modified Mfr. #, Modified Serial #, Modified Lot #.
- Workscoping Details Workscoping Status, Revision #, Action on Revision, Comments.

Viewing order execution details

In this tab, you can view the execution of the work order, as shown below:

- Execution Details Order Category, Order Priority, User Status, CoM Req?, Plan Start Date / Time, Plan End Date / Time, Work Requested, Repair Process Code, Order Class, Repair Classification.
- Accounting Details Expense Type, CAPEX #.

Viewing part disposition and movement details

In this tab you can view disposition and movement details of the main core. You can view initial and final disposition details indicating the type of the work to be performed on the part removed, whether any fault is found during inspection of the part, current location of the part, location where the main core must be returned after the work is completed, etc.

- ▶ Part Disposition Details Initial Repair Disp., Final Rep. Disp.?, Disposition Remarks, NFF?, BER.
- ▶ Core Movement Details Current Loc., Next Move, Final Movement, Movement Remarks.

Viewing reference details

You can track and view the customer order details, execution reference details, parent work order details, work requested details such as discrepancy references, job card references, etc.

- Customer Order Details Customer Order # / Rev #, Customer #, Order Desc., Source Cust. Order # / Rev #, Customer #, Contract #, Work Scope Code.
- ► A/C Execution Details Exe. Ref #, Aircraft Reg. #, Work Center #.
- ▶ Parent Work Order Details Parent SWO #, Root SWO #.
- ▶ Work Order Source Details Source Parent SWO #, Source Root SWO #, Source Cust. Order # / Rev #, Customer #, Org. Contract #.
- ▶ Work Requested Details Discrepancy References, Job Card References, Mod. Instructions, Cust. Work Requested.

Viewing contract terms and conditions

The contract details of the work order are displayed in this tab.

• Contract Details - Element, Description, Value, Auto Hold?, Hold Codes.

Viewing removal and warranty details

This tab displays part removal details, supplier and customer warranty details, and ownership details of the work order.

- Removal Details Rem. From A/C Reg # / MSN #, Removed from Part # / Serial #, Reason for Removal, Removal Date & Time, SOS Disposition, Initial Discrepancy Count.
- Supplier Warranty Details Under Warranty?, Warranty Agreement # / Supplier #, Warranty Ref. #.
- Customer Warranty Details Warranty Requested?, Warranty Resolution, Warranty Notes.
- **Ownership Details** Ownership / Owning Agency #, Exchange Contract?, PBH Coverage.

'View Order Details' multiline

On selecting the "View Order Details" link in the left pane, the system displays the task details of the selected work order in the multiline in the right pane. The parent task, intermediate tasks and the operation tasks in the work order are displayed in a hierarchical chain in the multiline. Details displayed are as follows:

- Child Work Order #, Seq #, O. Seq#, Task #.
- Exec. Status, Est. Status, Exec. Action, Workscope Notes.
- Work Center #, Exec. Priority, Plan Start / End Date / Time, Actual Start / End Date / Time.
- Repair Basis, Repair Process Code, Repair Agency #.
- Parent Task #, Root, Task #, Exec. Facility, Compliance Date, Est. Man Hours.
- ▶ Select the required task/discrepancy in the multiline and then click the "Print Task/Discrepancy Card" link to view the Task or Discrepancy card.

'Part Estimates vs Actuals' multiline

In this section, you can view the part estimates / actuals recorded against the task in the work order.

- Requested Mfr. Part #, Requested Part Mfr. #, Std. Qty., Est. Qty., Req. Qty., MR Qty, Issue Qty., Used Qty., New Part?, Need Frequency.
- Reconcile Qty Excess, Reconcile Qty Core, Pending Return Qty, Pending Return Qty Core, Returned Qty – Excess, Returned Qty – Core, Issue #, Issued Part #, Issued Mfr. Part #, Issued Part Mfr. #, Issued Lot #.
- MR Priority, Request Mode, Part Type, MR Source, Substitute Type, Substitute Part #, MR Status, Requirement Type.

'Resource Estimates vs Actuals' multiline

This section displays the resource estimates / actuals recorded against the task in the work order. The following details are displayed:

- Resource Type, Resource #, Resource Description, Est. Nos, Est. Time, Time Unit, Std. Nos, Actual Nos, Actual Time, Used Value, Used UoM.
- Std. Time, Reqd. Nos, Reqd. Time, Estimation Status, Hold Status, Repair Classification.

'View Removed Part Status' multiline

On selecting the "View Removed Part Status" link in the left pane, the system displays following details of the part removed.

- Rem. Part #, Rem. Serial #, Rem. Comp. #, Position Code, Work Order #, Disposition.
- ▶ Hold Status, Repair Agency #, Repair Order #, Attachment Status, NHA Part #, NHA Serial #, NHA Component #.

'Employee Timesheet Details' multiline

This section displays the timesheet booking details of the employee. All records of Booking Type "Direct", "In-direct" and "Workscoping" are retrieved and displayed here.

Emp. Name, Emp. #, Task #, From Time, To Time, Worked Hrs, Attendance Type, Booking Type, Timesheet Status.

'Shop Findings' multiline

The details of the observations recorded during execution of the task, details of the discrepancy reported and the corrective taken against the discrepancy, are displayed in the section. The corrective action is displayed in the descending order of date and time, in a tree structure in which the latest corrective action is displayed first.

- Finding Type, Finding Description, Finding #, Disc. Status, ATA #, Disc. Type, Reference #.
- Reported by, Reported Dt & Time, Corrective Action, Corrective Action Dt & Time, Corrective Action by.

'Comments' multiline

The "Comments" multiline displays all the comments e.g. sign-off comments, workscoping comments, employee comments and execution related comments recorded against all the tasks in the work order.

 Comment Type, Task #, Comments, Employee #, Employee Name, Updated Date & Time, Skill, Resource Group.

'View Sign-Off Information' multiline

This section displays sign-off comments recorded against all the tasks in the work order. Details, such as Sign-Off Status, Exec. By, RII Sign-Off, Addl Sign-Off, Sign Off Date & Time, Exec. Date & Time and Sign-Off Comments are displayed.

'View Status Log' multiline

The status log details of the task / work order, such as Entity Type, Entity #, From Value, To Value, Date & Time, Changed By, are displayed here.

'View Replacement Details' multiline

In this multiline, you can view the details of the parts attached, removed or replaced. The details are as follows:

- ▶ Off Part #, Off Part Serial #, Off Component #, Removal Qty., Initial Disposition, Attached Task #.
- On Part #, On Serial #, On Component #, Attached Qty., Serial Type, Removed MSN #, Removed Task #,
- Comp. Removal #, Comp. Attachment #, Removal Work Order, Attachment Work Order #, Generated Work Order.

'View Work Exec. Certificates' multiline

The details of the certificates issued against the shop work order, are displayed in this section.

'Additional Main Cores Details' multiline

This multiline displays the details of the additional cores associated to the existing main core. Details such as Mfr. Part #, Mfr. #, Serial #, Part Description, Lot #, Qty., Stock Status, are displayed here.

'Parameter Reading Details' multiline

On clicking the relevant link in the left pane, you can view the parameters recorded against the part # / serial # on which the task is executed.

 Parameter #, Parameter Description, Value, Exec. Remarks, Permitted Values, Update Dt. & Time, Updated by.

'View Work Hold Details' multiline

You can view the hold details of the task / work order in this multiline. The following details are displayed:

- Exe. Order Type, Exec. Order #, Customer Order #, Customer #, Customer Name.
- ▶ Hold Code, Hold Comments, From / To Date & Time, Duration, Release Comments, Delayed?, Response by, Response Dt & Time, Hold Category, Hold Type, Held Doc. Type, Held Doc #, Held Entity Type, Held Entity #, Initiated by, Released by.

4 COMPONENT REPLACEMENT

Component on the aircraft having unscheduled or scheduled maintenance problems can be made operational by removing the defective component and replacing it with a serviceable component. The aircraft is grounded only to the extent of the time taken for removal and attachment of the respective components. The defective component is later serviced and maintained as a standby component in inventory.

Component Replacement is the document containing information as to which part number and serial number must be removed from which position code and which component must be installed. The approval of visit package and a subsequent requirement of scheduled replacement, or a need for replacement as a consequence of snag processing, can result in component replacement. The **Component Replacement** sub process is used to track this replacement.

The **Component Replacement** business component records the various stages of the component replacement process.

4.1 Setting options for component replacement

You can define the system parameters for automatic generation of warranty claim and default description of warranty claim. You can also specify whether error logging of component replacement transactions is permitted or not.

1. Select the **Option Setting** link in the **Component Replacement** business component. The **Set Options** page appears. *See Figure 4.1.*

* 🗎 Set Options	
	Date Format yyyy-dd-mm
Option Setting Details Automatic Generation of Warranty Claim Default Replacement Date Based on Source Document Check Whether Assembly Status is Complete Yes Default Description of Warranty Claim from CR Component Warranty Permit Error Logging of Component Replacement? Yes	
Set Options	
Record Statistics Last Modified by SKAR	ast Modified Date 2011-06-11

Figure 4.1 Option setting in component replacement

- 2. Select the Automatic Generation of Warranty Claim. Select "Yes" to generate automatic warranty claim for parts getting removed for service that are under the warranty period.
- 3. Set the **Default Replacement Date based on source document** field to "Yes" to set the "Removal Date" and "Removal Time" fields in the "Update Component Replacement Details" activity to the date and time specified in the source document.
- 4. Set the **Check whether assembly status is complete** field to "Yes" to check whether the assembly status of the installed part number and serial number is "complete" before replacing a component.
- 5. Enter the Default Description of Warranty Claim from CR.
- 6. Set the **Permit Error Logging of Component Replacement?** field to "Yes", if the errors encountered during component replacement transactions must be recorded. Set the field to "No" if the component replacement transactions must be executed without recording any errors.
- 7. Click the Set Options pushbutton to update the system parameter values.

4.1.1 Creating reasons for removal

You can define the reasons for removal of a component from an aircraft. A component can be removed from an aircraft for reasons, such as inspection, damage or developmental repair.

1. Select the **Create Reasons for Removal** link in the **Common Master** business component. The **Create Reasons for Removal** page appears. *See Figure 4.2.*



*		Create Reasons For Remo	val				24		•	? 🛯 🗖
-	- Reasons For Removal									
44	4	1 -1/1 > >> + - 🗇	× O C T T			ii x² ₽ ⊨ III All		Ŧ		Q
#		Reason #	Reason Description	Reason Ca	tegory	Reliability Analysis?		Removal	Туре	
1		A101	Technical snag during flight	1	~	Required	*	Schedule	d	~
2					*	Not required	*	Schedule	d	~
		4								•
	Create Reason #									

Figure 4.2 Create reasons for removal

- 2. Enter the unique number identifying the reason for removal of a component in the **Reason #** field.
- 3. Enter the description of the reason for removal in the **Reason Description** field.
- 4. Use the **Reason Category** drop-down list box to specify the category to which the reason belongs.
- 5. Click the **Create Reason #** pushbutton to create the reason for removal.
 - Note: The system creates the reasons for removal and sets the status as "Active". The system sets the "Created by" field to the name of the login user and "Created Date" field to the current server date.

4.2 Removing unserviceable component

Position codes are the identifications of the physical locations in the aircraft or component structure. These position codes help in tracking the replacement history of the components attached to it at various points in time. The removal or installation of a component is tracked with reference to the position code.

This section deals with recording the details of removal of a component. Components are removed from the aircraft for maintenance. A document recording the component replacement details is created for every part removed from the aircraft. On installation of the component, the document is updated with the details of installation of the part in the aircraft.

- 1. Select **Record Component Replacement Details** under Component Replacement business component. The Select Part # page appears.
- Enter the removed part number and serial number in the Removed Part #, Removed Serial # fields and select the Update Component Replacement Details link provided alongside. Or, specify the search criteria and click the Search pushbutton. Select the hyperlinked Serial # in the multiline. The Update Component Replacement Details page appears. See Figure 4.3.
 - Note: The component specified by the "Removed Part #" and "Removed Serial #" should satisfy the following conditions:

The component must be in "Active" status.

The component must not be attached to any aircraft with "Frozen" record status.

The component must be currently attached to a position code across all levels in the aircraft configuration.

The position code to which the component is currently attached must be in "Active" status.

- 3. Select the type of numbering for the component replacement number in the **Numbering Type** drop-down list box.
- 4. Select the **Record Mode** for the component replacement transaction. Set the field to "Yes" if the component replacement transaction must be executed normally, without recording any errors. Set the field to "With Error", if the errors encountered during the component replacement transaction must be recorded.
 - Note: The "With Error" option will be available only if the "Permit Error Logging of Component Replacements?" field is set as "Yes" in the "Set Options" activity of the current business component.
- Select the type of the source document that serves as a reference for the component replacement, in the Source Document Type drop-down list box. The source document could be "Line Work Order", "Hangar Work Order", "Component Work Order", "A/C Maint. Exe. Ref #"" or "Others".
- 6. Select the station where the replacement is to be done in the **Station** dropdown list.

4.2.1 Recording component removal

1. Select the **Removal/Installation Details** tab, to enter/modify the component removal details.



In the **Removal Details** group box, enter the **Component Condition**, **Removed By**, **Removal Date** and **Removal Time**.

- Note: The system stores the date and time entered in the above fields in the local and UTC time format. If the "Default Replacement Date and Time based on source document" option is set to "Yes" in the "Set Options" activity, the system defaults the removal date and time to the date specified in the source document.
- 2. In the **Removal Reason Details** group box, enter the **Reason #** and select the type of removal in the **Removal Type** drop down list box. The type of removal could be "Scheduled", "Unscheduled" or "Others".
- 3. Select "Yes" in the **Basic Removal** drop down list box when the component is removed due to a problem in the same component. Select "No", when the component is removed for accessibility reasons, that is, for removal of another component.
- 4. Enter the number identifying the reason for removal in the **Reason #** field.
- 5. Click the Create CR pushbutton, to store the component removal details.
 - Note: The system creates a component replacement number and the status of the transaction is set to "Fresh".

📄 Update Component Replacement Details		44 4 1 2 3 4	5 ▶ ▶ 2 /500 🗐 그려 🖶 🛱 🗲 ?
Component Replacement Details	The system generates a	Date & Time Format	yyyy-dd-mm hh:mm:ss
Component Replacement #	unique number to identify	Numbering T	/pe REPL V
Status	the CR transaction	Record M	ode Normal 🔻
Source Document Type		Source Documer	it #
Station AIR IN			
Next Higher Assembly Details	Use this tab to view the		Select the
Aircraft Reg # 1101	errors pertaining to the CR	Position C	
Component Type	transactions	AI	
NHA Pail #	liansactions	NHA Componen	
Removal / Installation Details		NHA Componer	generate the
Removal Details			component
Permoved Part #		Removed Serial #	replacement
Lise this tab to		Part Description	transaction number
optor the		Tag #	
UnServi	iceable 🔻	Attachment Status	Removed
component 2016-19	9-05	Removal Time	19:01:20 × 🗰
removal details		_	
- Removal Reason	Enter the reason for	Paris Removal	
Reason # 0	removal	Dasic Relitival	•
Remarks			
Installation Details			
Source of Installed Comp	•	Attachment Status	
Installed Part # 👂		Installed Serial # 👂	
Installed Component # 👂		Part Desc	
Installation Date & Time 2016-22	7-05 🗰 19:00:41 🗰	Installed By 👂	
Acceptance Ref.		Effectivity Notes	View Effectivity Notes
Comments			
	Create CR	Confirm Removal	Confirm Replacement Cano
CR Details	Amend CR Details	Manage Part Eff	ectivity
Component Information of Installed Component	Print Part Tag		

Figure 4.3 Recording the component removal details

- 6. Click the **Confirm Removal** pushbutton, to confirm the component removal details.
 - Note: The removal details of component replacement document cannot be edited if removal has been confirmed.



Note: Ensure that the removal date and time of the removed component is later than the parameter value of the removed component, as available in the parameter value history in the "Aircraft" business component.

If the **Record Mode** is set as "With Error" and if errors are encountered during the component removal transaction, the system updates the CR status to "Error-Removed".

- Note: You can use the Error Log tab, to view the errors (if any) encountered during the component removal transaction. Refer to the topic "Viewing errors pertaining to component removal transaction" for more details. If no errors are encountered during the component removal transaction, the system updates the CR status to "Removed".
- 7. Click the details **Confirm Replacement** pushbutton to amend a component removal detail.
 - Note: You cannot confirm the component replacement transaction in "Error-Removed" status.
 - Note: Ensure that the removal date and time of the removed component is later than the initialization date and time of the removed component parameter value available in the parameter value history, in the "Aircraft" business component.
 - Note: Also ensure that the installation date and time of the installed component is later than the initialization date and time of installed component parameter value available in the parameter value history, in the "Aircraft" business component.

If the **Record Mode** is set as "With Error" and if errors are encountered during the component replacement transaction, the system updates the CR status to "Error-Replaced".

- Note: You can use the *Error Log* tab, to view the errors (if any) encountered during the component replacement transaction.
- Note: Refer to the topic "Viewing errors pertaining to component replacement transaction" for more details.

If no errors are encountered during the component replacement transaction, the system updates the CR status to "Replaced".

If the part is under warranty and the user has selected the auto creation of warranty claim, the system creates a warranty claim on confirmation of the CR details.

- 8. Click the **Cancel CR** pushbutton, if you wish to cancel the component removal details.
 - Note: The transaction status is set to "Cancelled". Only transactions in "Fresh" status can be cancelled.

Further, you can do the following:

- View errors pertaining to the component removal transaction.
- Associate a proposed action on the part removed.

Viewing errors pertaining to component removal transaction

You can view the errors encountered during the component removal transaction.

1. Select the Error Log tab in the Update Component Replacement Details, Edit

ramco

Component Replacement Details or **View Component Replacement Details** page. The system displays the details of the errors encountered during the component removal/replacement transaction, in the **Error Log** multiline. *See Figure 4.4*

Update Component Replacement Details			4 4 1 2 3 4 5	▶ } ≥ /	500 🗐 🕫 🛊	⇒ + ?
Company Paperson Details			Date & Time Format yyy	y-dd-mm	hh:mm:ss	
Component Replacement #			Numbering Type	DEDI V		
Status			Record Mode	Normal V		
Source Document Type	T		Source Document #	Normal -		
Station AIR INDIA S	TATION					
Next Higher Assembly Details		_				
Aircraft Reg # 1101	You can view the		Position Code	POS-2		
Component Type			ATA #	20-00		
NHA Part #	errors encountered		NHA Serial #			
NHA Part Desc	during CR		NHA Component #			
Removal / Installation Details Error Log	transaction					
- Error Log						
🔫 🖣 [No reds to display] 🕨 🕨 🝸 🔨				All	•	Q
# Error Description		Status	Logged Date & Time		Processed Date & Time	
Use this tab to update the component removal/installati on details						
	Create CR		Confirm Removal	[Confirm Replacement	C

Figure 4.4 Viewing error log details for CR transaction

If the Record Mode is set as "With Error" in the main page, then the errors encountered during the component removal/replacement transaction will be updated with an Error ID in the Error Log multiline, with the status as "Pending" and "Logged Date & Time" as the date and time at which the CR transaction was recorded. If the existing errors are satisfied during any of the CR transactions, then the system will update the status of the error as "Closed" and the "Processed Date & Time" as the date and time at which the cR transaction was recorded.

If the Record Mode is set as "With Error" and no error is encountered during component replacement / removal transaction, the system updates the following in the multiline: (i) 'Error ID' as blank; (ii) 'Error Description' as "No Errors"; (iii) Status as "Closed"; and (iv) 'Logged Date & Time' as current date and time.

4.2.2 Installing serviceable component

- 1. Select **Record Component Replacement Details** link under Component Replacement business component. The **Select Part #** page appears.
- 2. Enter the removed part number and serial number in the **Removed Part #**, **Removed Serial #** fields and select the **Update Component Replacement Details** link provided alongside. Or, specify the search criteria and click the **Search** pushbutton. Select the hyperlinked **Removed Serial #** in the multiline.
 - Note: The component specified by the "Removed Part #" and "Removed Serial #" should satisfy the following conditions:

The component must be in "Active" status.

The component must not be attached to any aircraft with "Frozen" record status.

The component must be currently attached to a position code across all levels in the aircraft configuration.

The position code to which the component is currently attached must be in "Active" status.

3. Enter the **Component Replacement Details**. The **Update Component Replacement Details** page appears. *See Figure 4.5.*

Recording component installation

- 1. Select the **Removal/Installation Details** tab to enter/modify the component installation details.
- 2. In the **Installation Details** group box, select the source of the installed component in the **Source Of Installed Comp** drop down list box. The source could be "Inventory", "Cannibalization", "Swap" or "Others".
- 3. Enter the Installed Part #, Installed Serial #, Installed Component #, Installation Date, Installation Time and Installed By fields.
- 4. Enter the **Acceptance Ref.** which may be document or a text. This field is entered while attaching a part to aircraft.
 - Note: While attaching a part to an aircraft or a Component, the system ensures that the Part # of the installed Component is effective to the Aircraft / Component #. Some parts are identified as Effective to Aircraft or Component based on specific conditions. If the "Effectivity Status" of the installed part or the part # of the child component attached to installed part # / installed serial #, is set as "Conditional Effective" for any of the higher assembly maintenance object, then as authentication for verification of the conditions before attachment, system will mandate an Acceptance Reference.



★ 🗎 Update Component Replacement Deta	ils	(4) 4 1 2 3 4	5 🕨 🕨 2 /497 🍱 🖶 🗭 🗲 ? 🗔
		Date & Time Format	ld-mm-yyyy hh:mm:ss
Component Replacement Details			
Component Replacement #		Numbering Typ	e DFGH 🖤
Status		Record Mod	e Normal 💌
Source Document Type	•	Source Document :	##
Station	AIR INDIA STATION		
	10000		
Aircraft Reg #	10000	Position Cod	e P05-1
Component Type		AIA	# 20-00
NHA Part #		NHA Senal	
NHA Part Desc		NHA Component :	## ??
Removal / Installation Details Error Log			
Removal Details			
Removed Part #		Removed Serial #	
Removed Component #		Part Description	
ATA #		Tag #	
Component Condition	UnServiceable 🔻	Attachment Status	(deale
Removal Date & Time		Removal Time	Ē
Removed By 👂			
Removal Reason Details			
Removal Type	•	Basic Removal	~
Reason # 👂			
Remarks			
Source of Installed Comp	•	Attachment Status	
Installed Part # P		Installed Serial # 👂	
Installed Component # 👂		Part Desc	
Installation Date & Time	13-07-2016 19:14:17 11	Installed By 👂	
Acceptance Ref.		Effectivity Notes	View Effectivity Notes
Comments			
	Create	CR Confirm Removal	Confirm Replacement Cancel CR
Edit CR Details	Amend CR Details	Manage Part Effect	ivity
View Component Information of Installed Component	Print Part Tag		

Figure 4.5 Updating component replacement

- 5. Click the **Confirm Replacement** pushbutton to confirm the installation of part after servicing.
 - Note: Neither the removal nor installation details can be edited if the replacement has been confirmed.
 - Note: Ensure that the removal date and time of the removed component is later than the initialization date and time of the removed component parameter value available in the parameter value history, in the "Aircraft" business component.
 - Note: Also ensure that the installation date and time of the installed component is later than the initialization date and time of installed component parameter value available in the parameter value history, in the "Aircraft" business component.

If the **Record Mode** is set as "With Error" and if errors are encountered during the component replacement transaction, the system updates the CR status to "Error-Replaced".

Note: You can use the *Error Log* tab in the main page, to view the errors (if any) encountered during the component replacement transaction.

If no errors are encountered during the component replacement transaction, the system updates the CR status to "Replaced".

Further, you can do the following:

- View errors pertaining to the component replacement transaction.
- Associate a proposed action on the part removed.

Refer to the topics "Proposing an action on the removed component" for more details.

4.2.3 Viewing errors pertaining to component replacement transaction

You can view the errors encountered during the component attachment/replacement transaction.

Follow the steps listed under the topic "Viewing errors pertaining to component removal transaction", to view the error log details.

4.2.4 Amending a component replacement

- 1. Select Amend Component Replacement Details under Component Replacement business component. The Select Component Replacement # page appears.
- Enter the Component Replacement # and select the Amend Component Replacement Details link provided alongside. Or, enter the search criteria to search for a component replacement number and select the hyperlinked Component Replacement # in the multiline. The Amend Component Replacement # page appears. See Figure 4.6.
 - Note: Ensure that the component replacement number is not associated to any aircraft with "Frozen" record status. Also ensure that the component replacement transaction is not in "Error-Removed" or "Error-Replaced" status.
- 3. Specify the SOS Disposition, Removal Date and Removal Time of the part.
- 4. Modify the required details in the **Removal Reason Details** group box.
- 5. In the Installation Details group box, enter the Installation Date & Time. The system displays the Installed Part #, Installed Serial #, Installed Component #, Acceptance Ref., Effectivity Notes in this group box.
 - Note: The acceptance reference which may be a document or a text indicates that the installed part # or the part # of the child component attached to installed part # / installed serial #, is "Conditional Effective" for any of the higher assembly maintenance object.



Amend Component Replacement Details		44 4 1 2 3 4 5	▶ » 2 /500 🗐 ≭ 暮 🛱 🗲 ? 🗔 🗖
Component Replacement Detaile		Date & Time Format yyy	y-dd-mm hh:mm:ss
	EPEN-000003-2011	Status	Penlared
Source Document Typ	• Others	Source Document #	icepiecea
Station	Montreal		
Next Higher Assembly Details	Hond Cal		
Aircraft Reg	ŧ	Aircraft Model #	
NHA Part	[‡] 161T1000-625:81205	NHA Serial #	ENG-MPG-001
NHA Component	≠ C8	NHA Part Desc	LH MLG BUILDUP ASSEMBLY
Component Typ	Landing Gear	Position Code	129
Removal Details			
Removed Part	ŧ	Removed Serial #	
Removed Component	ŧ	Part Description	
ATA	ŧ	Tag #	
Component Conditio	1	Removed By	
Removal Date & Tim	2016-12-05 × 🕮	Removal Time	
Removal Typ		Basic Removal	Yes V
Reason # J	SCHEDLILED		
Bemark			
Comment		· · · · · · · · · · · · · · · · · · ·	
Installation Details		×	
Installed Part	f 161T1303-7:81205	Installed Serial #	ENG-MPG-001
Installed Component	¢ C11	Part Desc	FWD TRUNNION HOUSING
Installation Date & Tim	2011-14-11 🗰 11:24:32 🗰	Installed By	00016958
Source of Installed Com	Inventory	Acceptance Ref.	
Effectivity Note	5		
		Amend CR	
Propose Action	View Component Information of Installed Component		
Record Statistics			
Created b	/ JLEGARE	Created Date	2011-14-11
Rem Confirmed By	:	Confirmed Date	
Repl Confirmed By	ILEGARE	Confirmed Date	2011-14-11

Figure 4.6 Amending component replacement details

- 6. Click the **Amend CR** pushbutton to amend the component replacement details.
 - Note: Ensure that the removal date and time of the removed component is later than the initialization date and time of the parameter value of the removed component, as available in the parameter value history in the "Aircraft" business component.
 - Note: Also ensure that the installation date and time of the installed component is later than the initialization date and time of the parameter value of the installed component, as available in the parameter value history in the "Aircraft" business component.

4.3 Reversing a component replacement transaction

You can reverse a component replacement transaction.

- 1. Select Reverse Component Replacement under Component Replacement business component. The Select Component Replacement # screen appears.
- Enter the Component Replacement # and select the Reverse Component Replacement Transaction link provided alongside. Or, enter the search criteria to search for a component replacement number and select the hyperlinked Component Replacement # in the multiline. The Reverse Component Replacement # page appears. See Figure 4.7.

★ 🗎 Reverse Component Replacement #		44 4 1 2 3 4 5	▶ ▶ 3 /500 🗐 ≭ 🖶 🛱 🗲 ? 🗔 🗖
Component Replacement Details		Date & Time Format yyy	y-dd-mm hh:mm:ss
Component Replacement #	REPL-000003-2011	Status	Replaced
Source Document Type	Others	Source Document #	
Station #	Montreal		
Next Higher Assembly Details			
Aircraft Reg #		Position Code	129
Component Type	Landing Gear	ATA #	32-10
NHA Part #	161T1000-625:81205	NHA Serial #	ENG-MPG-001
NHA Part Desc	LH MLG BUILDUP ASSEMBLY	NHA Component #	C8
Removal Details		Dereved Cariel #	
Removed Part #		Removed Senai #	
Removed Component #		Part Description	
AIA #		Tag #	
Component Condition		Removed By	
Removal Reason Details		Removal lime	
Removal Type		Basic Removal	
Reason #		Remarks	
Comments			
Installation Details			
Installed Part #	161T1303-7:81205	Installed Serial #	ENG-MPG-001
Installed Component #	C11	Part Desc	FWD TRUNNION HOUSING
Installation Date & Time	2011-14-11 11:24:33	Installed By	000 16958
Source of Installed Comp	Inventory	Acceptance Ref.	
Effectivity Notes			
Reversal Details			
User Defined Detail 1		User Defined Detail 2	
Describe for Develop			
Remarks for Reversal		v	
		Reverse Installation Reverse Removal	
Created by	1 EGARE	Created Date	2011-14-11
Rem Confirmed By		Confirmed Date	
Real Confirmed By :	1 EGARE	Confirmed Date	2011-14-11
Reversal by		Reversal Date	
ice versus by		Kevel Sa Bate	

Figure 4.7 Reversing a component replacement transaction

3. Enter the reasons for reversal in the **Reversal Details** group box.

Reversing the installation of a component

4. Click the **Reverse Installation** pushbutton to reverse the installation details in the component replacement transaction.

Reversing the removal of a component

5. Click the **Reverse Removal** pushbutton, to reverse the removal details in the component replacement transaction.

If the component replacement has been confirmed then the installation has to be reversed first and then only removal can be reversed.

If any CWO or repair order has been generated on the removed part # or if any other CR has been generated on the removed part # after the removal, then CR removal cannot be reversed.

If any CR exists on the installed component with removal date after the installation date, such an installation cannot be reversed.

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