

# MRO Facility MTrak System

**Phase II – Implementation of Database Application in MS Access  
IEM 5723 - DATA, PROCESS, AND OBJECT MODELING**



Heartful thanks to Dr. Kamath for assisting us

## **Team Members:**

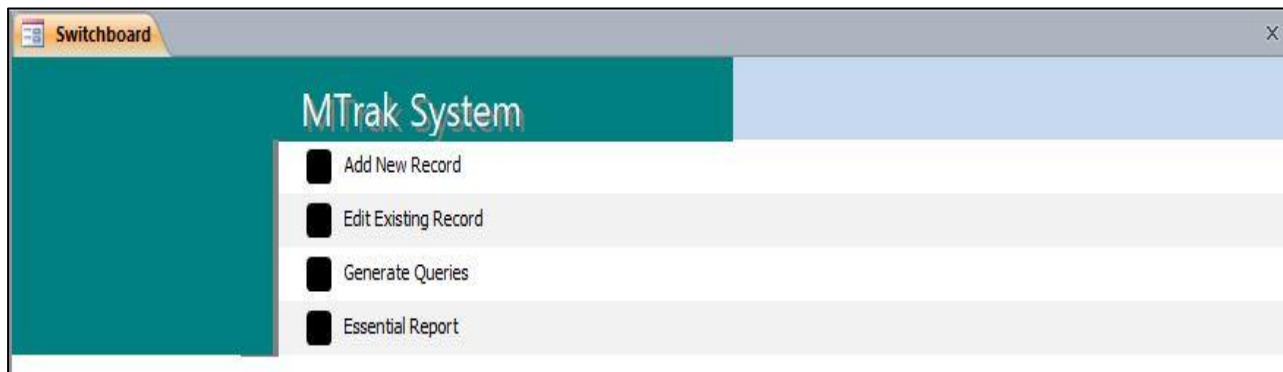
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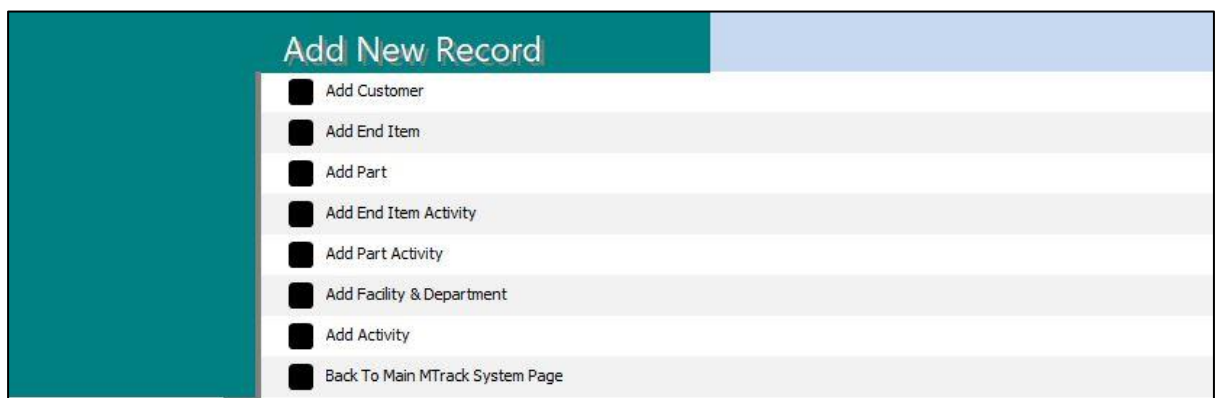
Date: 5/1/2020

## Quick Reference guide:

- An MTrak Application is created using the MS Access Database.
- Switchboard tool is used to create a user-friendly interactive layout for data input, Existing data modification and to generate essential reports from the database.
- The Account Manager Database Switchboard main window will look like image attached below.



- There are three selection in total for the main switchboard they are:
  - **Add New Records**: Helps to add new records in the database for new data related to customer, end item, part, activity, activity status, facility, department etc.
  - **Edit Existing Record**: Helps to modify existing data related to customer, end item, part, activity, activity status, facility, department etc.
  - **Generate Queries**: Helps to run some useful queries.
  - **Essential Reports**: Helps to generate important reports using the existing data.
- **Add New Records**: By Clicking on “Add New Records” a new window for dedicated new records forms will appear and it will look as the image shown below:



- **Add customer:** By clicking on this tab, we can add new information about new customer such as customer name, address, email id and id unique for each customer.
- **Add End item:** By clicking on this tab, we can enter new information about end item such as customer to which this end item belongs, item id, name, received date, status, time stamp, due date etc.
- **Add Part:** By clicking on this tab, we can enter new information about parts such as end item to which this end item belongs, part id, name, initial status, current status etc.
- **Add End Item Activity:** By clicking on this tab, we can enter new information about already existing end item, such as activities and department related to end item, start date, end date and activity status for particular end item
- **Add Part Activity:** By clicking on this tab, we can enter new information about already existing part, such as activities and department related to part, start date, end date and activity status for particular part
- **Add Facility and Department:** By clicking on this tab, we can enter new information about new facilities such as Facility ID, Facility name, address, contact and information about departments within that particular facility such as Department ID, Department Name, Department head etc.
- **Add activity:** By clicking on this tab, we can add activity information such as activity id, activity name that gets carried out in different departments within different facilities.
- Here, few actions buttons are used like delete record, save record, next record and previous record in each forms
- Also, if we wish to go back to the main switchboard window, “Back to Main MTrak system page” tab is to be used.
- The sample empty form for adding facility and department is shown in image below:

Enter Facility And Department

Facility\_ID

Facility\_Name

Facility\_Address

Facility\_Contact

Department

Department_ID	Facility_ID	Department_Name	Department_Head
*			

- **Edit Existing Record**: By Clicking on “Edit Existing Records” a new window for dedicated existing records forms will appear to modify existing data and it will look as the image shown below

Edit Record

- Edit Customer Record
- Edit End Item Record
- Edit Part Record
- Edit End Item Activity Record
- Edit Part Activity Record
- Edit Facility & Department Record
- Edit Activity Record
- Back To Main MTrack System Page

- **Edit Customer Record**: By clicking on this tab, we edit existing information about particular customer such as customer name, address, email id and id unique for each customer.
- **Edit End Item Record**: By clicking on this tab, we edit existing information about end item such as customer to which this end item belongs, item id, name, received date, status, time stamp, due date etc.

- **Edit Part Record:** By clicking on this tab, we can edit existing information about parts such as end item to which this end item belongs, part id, name, initial status, current status etc.
- **Edit End Item Activity Record:** By clicking on this tab, we can edit existing information about already existing end item, such as activities and department related to end item, start date, end date and activity status for particular end item
- **Edit Part Activity Record:** By clicking on this tab, we can edit existing information about already existing part, such as activities and department related to part, start date, end date and activity status for particular part
- **Edit Facility & Department Record:** By clicking on this tab, we can edit existing information about new facilities such as Facility ID, Facility name, address, contact and information about departments within that particular facility such as Department ID, Department Name, Department head etc.
- **Edit Activity Record:** By clicking on this tab, we can edit existing Activity information such as activity id, activity name that gets carried out in different departments within different facilities.
- Also, if we wish to go back to the main switchboard window, “Back to Main MTraak system page” tab is to be used.
- Here also few actions buttons are used like delete record, save record, next record and previous record in each forms
- The sample empty form for modifying existing facility and department information is shown in image below:



- **Number Of Parts For a Particular End Item:** In this query, by entering particular end item name, it will give us the total number of parts associated with that particular end item.
- **Present How Many Parts Are In Process For a Particular Repair Shop:** In this query, by entering particular repair shop name, it will give us the list of parts which is under repair in that particular repair shop
- **List Of Activities On a Particular Part:** By entering part name in this query, we will get the list of the activities that has been carried on that particular part till date.
- **List of Parts In Particular Facility:** By entering facility name, this query will give us the information about parts such as part id, part name which has visited the particular facility.
- Also, if used wish to go back to the main switchboard window, “Back to Main MTrak system page” tab is to be used.
- Image shown below represent the details of parts pertaining to end item Tank main gun (“**From Details Of Parts For a Particular End Item**” query)

Details Of Parts For a Particular End Item				
End_Item_Name	End_Item_ID	Part_ID	Part_Name	Current_Status
Tank main gun				
	030618107400000000055F2	2F020344A424A3300001955A	BrowPad	Nondefective
	030618107400000000055F2	2F0203354384A34000002637	GunDepressionStop	Nondefective
	030618107400000000055F2	2F020334551423900000C4F2	FireGear	Nondefective

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- **Essential Reports:** By clicking on reports, we can get extract useful information pertaining to each report through window shown below.



- **Details of All Items Which Has Been Delivered After The Due Date:** This report shows information about all items such as item id, item name which has been delivered after the anticipated due date for delivery with customer id and name
- **List of Items That Are Repaired Till Date:** This report shows the list of all items which has been repaired thoroughly by MRO facility till date with customer details to whom this items belong
- **List of Activities Carried On Respective Part:** This report shows the information about all the parts with the list of activities carried out on each part in respective department till date
- **List of Activities Carried On Respective end Item:** This report shows the information about all the end item with the list of activities carried out on each part in respective department till date:
- **List of Activities On Part Which Are Completed Within 1 Week:** This report provides essential information about activities on each of respective parts which has got over within a week with respect to start date of that particular activity on particular part
- **List of Defective Parts Which Have Been Repaired:** This report provides essential information about each of part related to all end items which were originally defective and have been repaired till date.
- **Number Of Part In Storage:** This report provides essential information about total number of parts currently available in storage.
- Also, if we wish to go back to the main switchboard window, “Back to Main MTrak system page” tab is to be used.
- Image shown below shows list of List of Activities Carried On Respective end Item from report “**List of Activities Carried On Respective end Item**”



## List of Activities Carried on Respective End Item

End_Item_ID	End_Item_Name	Activity_ID	Activity_Name	Start_Date	End_Date	Activity_Status
0306181074000000000055F2	Tank main gun	A11	Receiving	3/22/2020	3/22/2020	Done
		A4	MROShippingToCustomr	4/11/2020	4/11/2020	Done
		A1	Disassemble	3/23/2020	3/23/2020	Done
22F120304E4642380000051B	Machine gun ammuniti	A11	Receiving	3/23/2020	3/23/2020	Done
		A1	Disassemble	3/24/2020	3/24/2020	Done
22F120304E4642380000053C	Road wheel	A11	Receiving	3/24/2020	3/24/2020	Done
		A1	Disassemble	3/25/2020	3/25/2020	Done