Maintenance (Mx) and

Quality Control (QC) LOSA

Administrator Reference Manual

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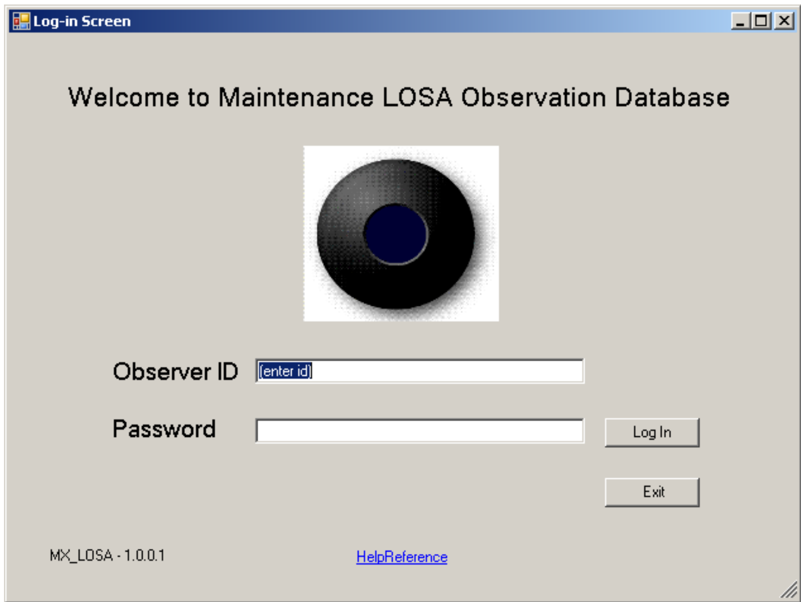
Logon

Double-click on the MX-LOSA desk top icon: 

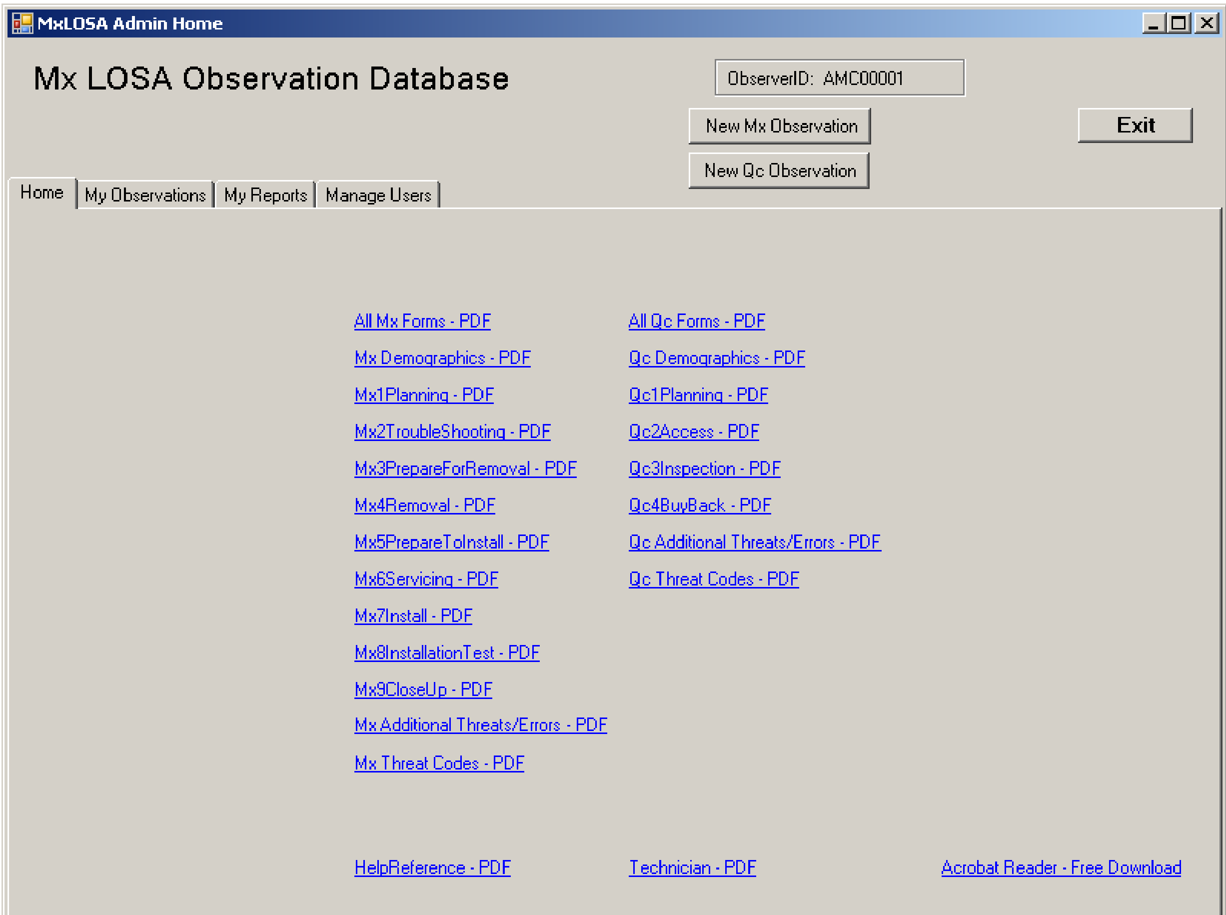


Enter your assigned ‘Observer ID’ and Password and click the Log In button to enter the Mx-LOSA application, or click Exit to close the application.

- If you do not enter an Observer ID or enter an incorrect ID, an error message will be displayed.
- If you do not enter a password, an error message will be displayed.
- If you enter an incorrect password, an error message will be displayed. *Please note that the Password is case sensitive and must be entered exactly, using capital and lower-case letters as provided.*

Administrator Home Tab

The Admin Home tab is displayed when an administrator-level ID is used to access the Mx-LOSA application. The current ID is displayed in a box at the top of the form. The function, or command, buttons (New Mx Observation, New QC Observation, and Exit) also located at the top of the screen are available for all tabs.



The Admin Home tab displays the following functions and tabs:

1) ‘New Mx Observation’ button: creates a new Mx observation (see New Observation section).
2) ‘New QC Observation’ button creates a new QC observation (see New Observation section).
3) ‘Exit’ button: logs out the current Observer and returns to the log in screen.
4) ‘Home’ tab: displays a list of all the forms included within the application. The forms are provided in Adobe Acrobat Reader® formats. Click on any form to display or print. If your computer does not have Adobe Acrobat Reader® software, click the link at the bottom of the Home tab to access Adobe’s website (requires internet connection) and install the Reader. (Installing software requires administrators’ rights on the computer being used).

New Observation

Create New Observation

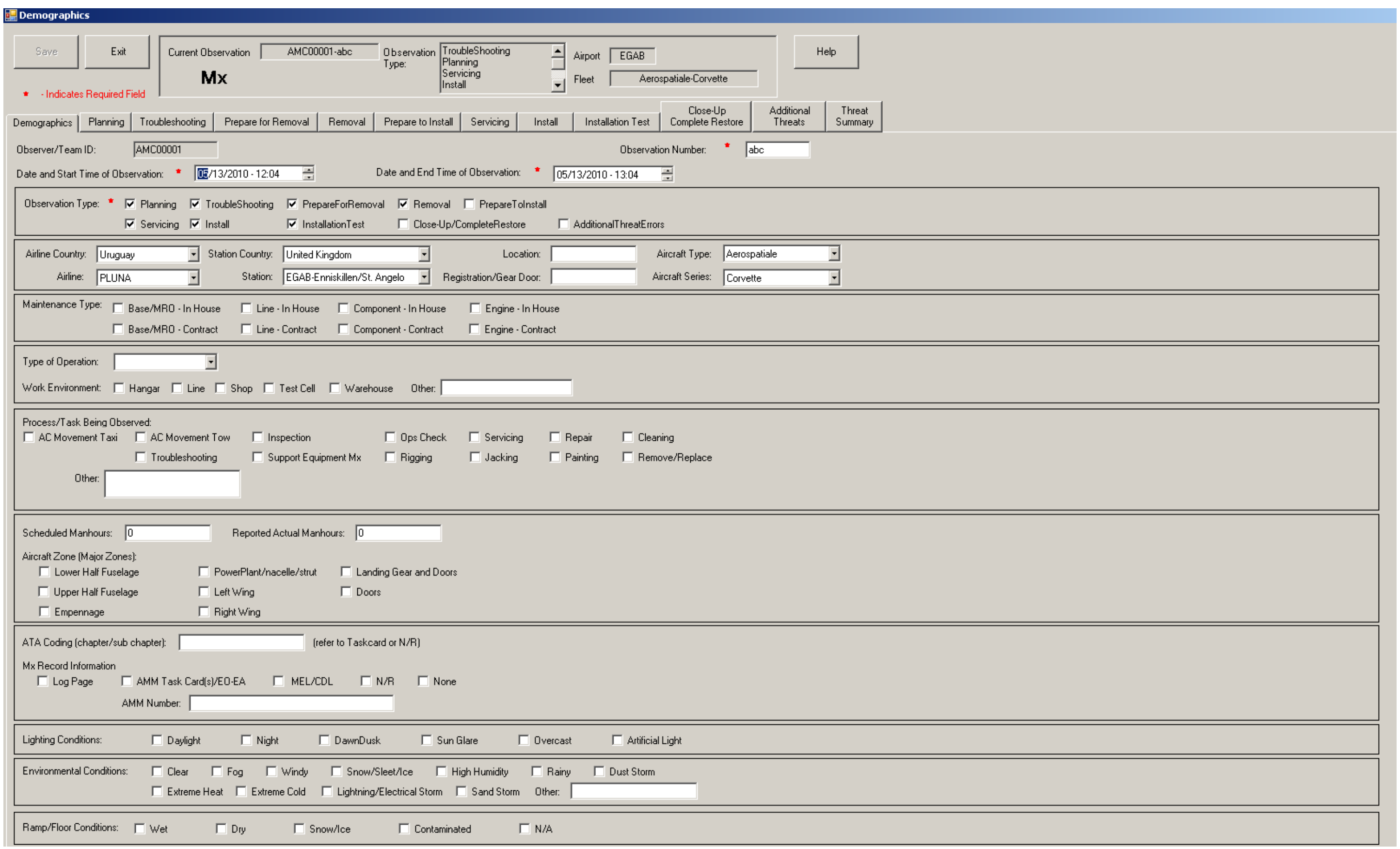
New observations can be initiated from any tab using the New Observations command button; however, only the My Observations tab allows you to view or edit existing observations.

1) Select either the 'New Mx Observation' or 'New QC Observation' button at the top of the screen: opens the Demographics form to input data.

Demographics tab (detail)

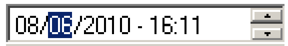
The Demographics form for new observations has several required fields as indicated on the form by red asterisks (*). These fields must be completed to save the new observation. Required fields include:

1) Observation Number*
2) Date and Start Time of Observation:* defaults to the date and time the observation was created.
3) Date and End Time of Observation:* defaults to date and time the observation was created. To save the form, the end time cannot be equal to or earlier than the start time.
4) Observation Type*
    a. Mx Observation (e.g., Planning, TroubleShooting, etc.)
    b. QC Observation (e.g., Planning, Access, Inspection, BuyBack)



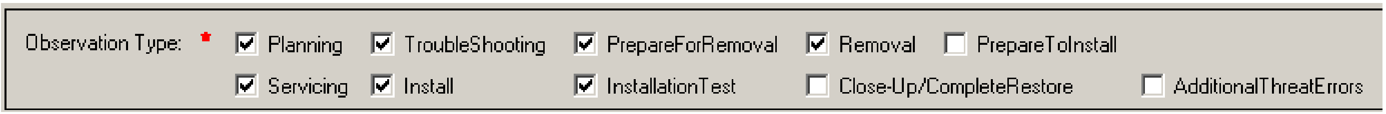
Observation Number:* This number is usually assigned by the team leader and can be any combination of valid characters (numbers, letters, national).

Date and Start/End Times of Observation:* Both the start and end date and time fields default to the creation time of the observation. Note that all the time fields are on a 24-hour, or military, clock, and can be changed by:

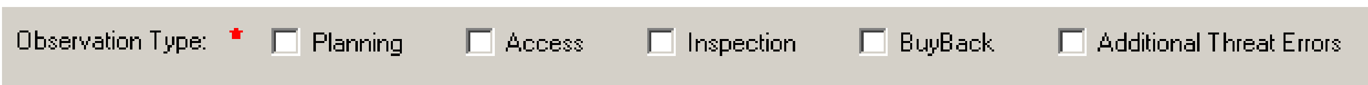
a. typing directly in the date/time box 

b. selecting mm, dd, yyyy, hh, or mm and using the up/down scroll arrows 

Mx Observation Type:* Lists ten types of Mx observations (e.g., Planning, Troubleshooting). All applicable types can be selected and are subsequently displayed at the top of the form after the form has been saved.



QC Observation Type:* Lists five types of QC observations (e.g., Planning, Access). All applicable types can be selected and are subsequently displayed at the top of the form after the form has been saved.

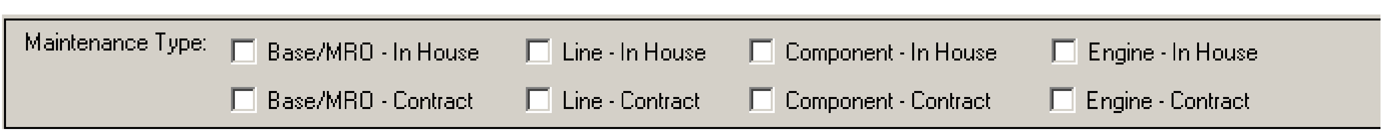


All required fields must be completed prior to saving. Once saved, a combination of the required fields will appear at the top of the form. For example, the current Observer ID and Observation Number will be shown in the ‘Current Observation’ box at the top of the screen, and Aircraft Type and Aircraft Series (although not required), are combined and shown in the ‘Fleet’ box. Saving the form will also activate all data collection tabs within the Demographics screen. For example, prior to saving an Mx observation, all tabs (e.g., Planning, Troubleshooting) are disabled (grey text); after saving, all tabs within the screen are active (black text).

The next panel asks for information about the Airline Country, Airline, Station Country, Station, Location, Aircraft Type and Series, as well as Registration/Gear Door.

1) Airline Country: defaults to USA and can be changed by selecting another country from the dropdown list. Only airlines for the selected country will be provided in the ‘Airline’ dropdown list.
2) Airline
3) Station Country: defaults to USA, can be changed by selecting another country from the dropdown list. Only the Four Letter Identifiers and airport names for the selected country will be provided in the ‘Station’ dropdown list.
4) Station
5) Location
6) Registration/Gear Door
7) Aircraft Type: Aircraft manufacturer. Only aircraft series for the selected Aircraft Type will be provided in the ‘Aircraft Series’ dropdown list.
8) Aircraft Series

Maintenance Type: Select all applicable Maintenance types.



Type of Operation/Work Environment: Select type of operation (scheduled, unscheduled) and all applicable work environment areas. Use the ‘Other’ text box to add additional information on work environment.

Type of Operation: [▾]

Work Environment: ☐ Hangar ☐ Line ☐ Shop ☐ Test Cell ☐ Warehouse Other: [ ]

Process/Task Being Observed: Select all applicable processes and tasks being observed. Use the ‘Other’ text box to enter additional information on the process/task being observed.

Process/Task Being Observed:
☐ AC Movement Taxi ☐ AC Movement Tow ☐ Inspection ☐ Ops Check ☐ Servicing ☐ Repair ☐ Cleaning
☐ Troubleshooting ☐ Support Equipment Mx ☐ Rigging ☐ Jacking ☐ Painting ☐ Remove/Replace
Other: [ ]

Scheduled Manhours: Enter the scheduled number of manhours and the actual manhours reported, respectively.

Scheduled Manhours: [ ] Reported Actual Manhours: [ ]

Aircraft Zone (Major Zones): Select all aircraft zones repaired or scheduled for maintenance or repair.

Aircraft Zone (Major Zones):
☐ Lower Half Fuselage ☐ PowerPlant/nacelle/strut ☐ Landing Gear and Doors
☐ Upper Half Fuselage ☐ Left Wing ☐ Doors
☐ Empennage ☐ Right Wing

ATA (Airline Transport Association) Coding (chapter/sub chapter): Enter the applicable chapter/sub-chapter of the ATA Coding book.

ATA Coding (chapter/sub chapter): [ ] (refer to Taskcard or N/R)

Mx Record Information: Select all applicable responses. If AMM (Aircraft Maintenance Manual) Task Card(s)/EO-EA is selected, enter the AMM number.

Mx Record Information
☐ Log Page ☐ AMM Task Card(s)/EO-EA ☐ MEL/CDL ☐ N/R ☐ None
AMM Number: [ ]

Lighting Conditions: Select all applicable lighting conditions.

Lighting Conditions: ☐ Daylight ☐ Night ☐ DawnDusk ☐ Sun Glare ☐ Overcast ☐ Artificial Light

Environmental Conditions: Select all applicable environmental conditions. Use the ‘Other’ textbox to add environmental conditions not listed.

Environmental Conditions: ☐ Clear ☐ Fog ☐ Windy ☐ Snow/Sleet/Ice ☐ High Humidity ☐ Rainy ☐ Dust Storm
☐ Extreme Heat ☐ Extreme Cold ☐ Lightning/Electrical Storm ☐ Sand Storm Other: [ ]

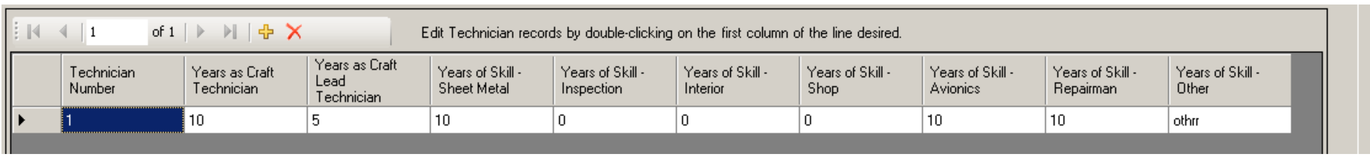
Ramp/Floor Conditions: Select all applicable ramp/floor conditions.

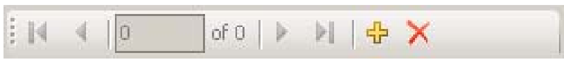
Ramp/Floor Conditions: ☐ Wet ☐ Dry ☐ Snow/Ice ☐ Contaminated ☐ N/A

Technician Data Grid

This data grid shows each technician for the current observation, and can be used to add new technicians, or edit or delete existing technician records. Technicians cannot be added to a new observation until all required items have been completed and the observation has been saved.

Columns of the data grid can be sorted and expanded. To sort, click anywhere in the column-name row. To expand, place the cursor on the vertical bar separating two columns on the column-names row, and double-click to automatically set the width to the longest record length, or click and drag to set the width manually.

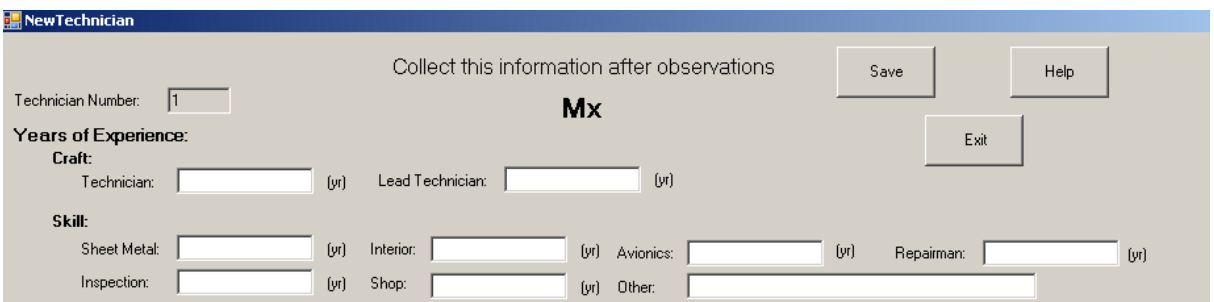


The navigation bar 

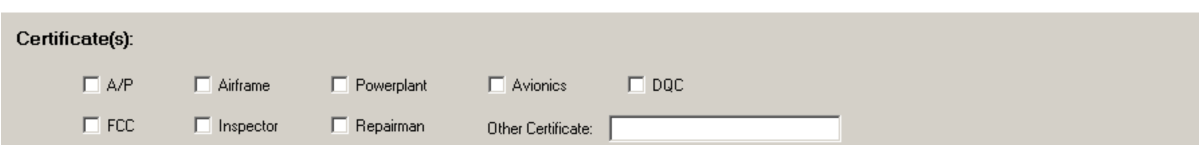
can be used to move forward or backward one record using the right or left arrow, respectively. The outside arrows with vertical lines can be used to navigate to the first or last records.

Add New Technicians using the data grid: click the plus sign in the navigation bar to open the New Technician form and add a new technician record. Technicians cannot be added to a new observation until all required items have been completed and the observation has been saved. Technician number is assigned automatically based on the order added. The information collected includes:

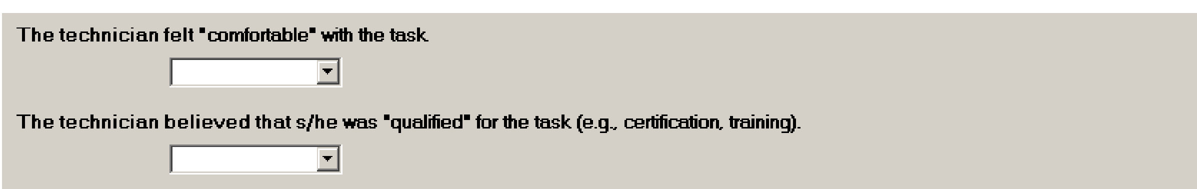
1) Years of Experience:
    a. Craft – enter years of experience as a technician (non lead) and years experience as a lead technician.
    b. Skill – enter years of experience with each of the listed skills (sheet metal, interior, shop, etc.).



2) Certificates: select all applicable certificates held by technician.



3) Technician Comfortable and Qualified: use the dropdown list to indicate 'Yes' or 'No'.



4) Regular Workshift

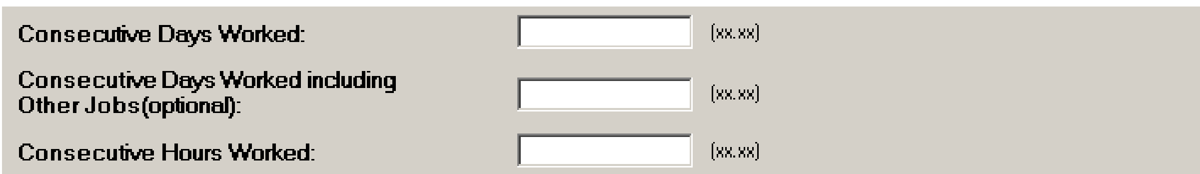
5) Time in Current Work/Bid Position: enter the number of months the technician has worked his/her current position.

6) Consecutive Days/Hours Worked:

   a. Days Worked: enter the number of days worked consecutively.

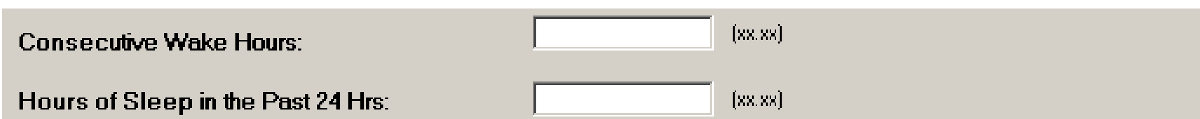
   b. Days Worked <u>including</u> other jobs (optional field): enter the number of days worked consecutively including all other jobs.

   c. Hours Worked: enter the total number of hours worked during current shift.



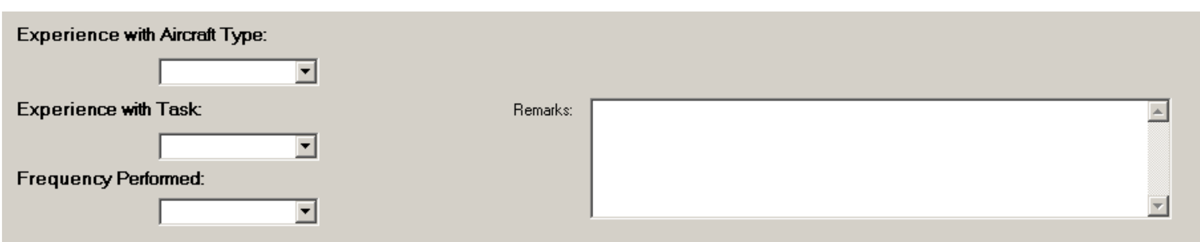
7) Consecutive Wake Hours: enter the number of hours since the last period of sleep.

8) Hours of Sleep in the Past 24 Hrs: enter the number of hours slept in the previous 24-hour period.



9) Experience with Aircraft Type and Task: use the dropdown list to select the length of experience with aircraft type and task (None, 1-6 Months, 7-12 Months, 1 to <3 years, 3 to <5 years, 5 years or more).

10) Frequency Performed: use the dropdown list to select the frequency with which the task was performed (1st time, Daily, Monthly, Quarterly, Semi-Annually, Annually).



Delete Individual Technician records using the data grid: single-click the box to the left of the first column to highlight the record (do not double-click), and click the delete button in the navigation bar to delete the selected record. You will be prompted to confirm the record deletion.

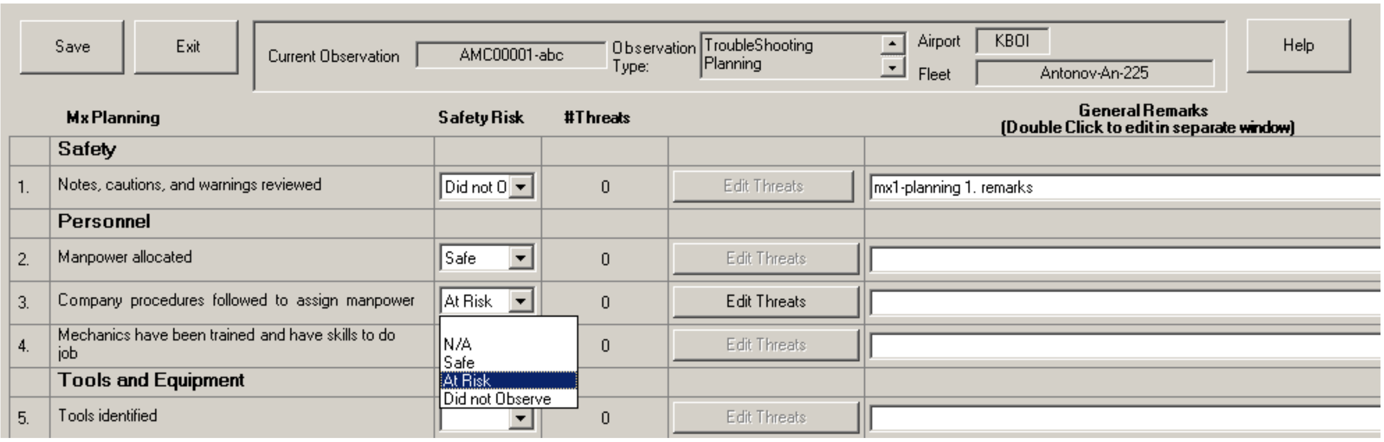
Data Collection tabs (detail)

Mx: Planning, Troubleshooting, Prepare for Removal, Removal, Prepare to Install, Servicing, Install, Installation Test, Close-up

QC: Planning, Access, Inspection, BuyBack

All data-collection tabs look similar and function in the same manner with the exception of the last two tabs, 'Additional Threats' and 'Threat Summary'. Each tab is a form with a series of associated tasks or behaviors (observable items) presented in a numbered list in the first column. The number of observable items varies across tabs.

1) Each observable item line presents a 'Safety/Risk' dropdown list, which defaults to blank and can be changed by selecting an option from the dropdown list:
    a. No selection (default)
    b. N/A: not applicable
    c. Safe: action was observed and determined to be safe.
    d. At Risk: action was observed and determined not-safe. This option will enable the 'Edit Threats' button for that item.
    e. Did not Observe: action may have been performed, but was not observed.

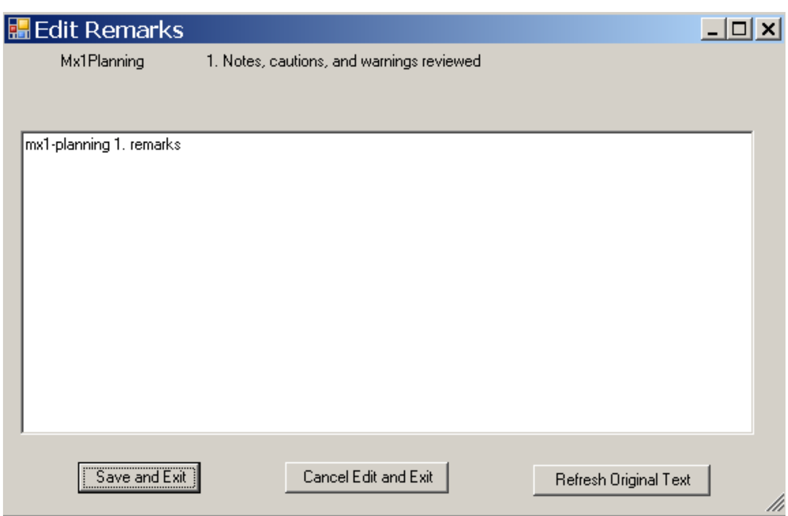


2) #Threats: message box indicating the number of Threats associated with each observable item.

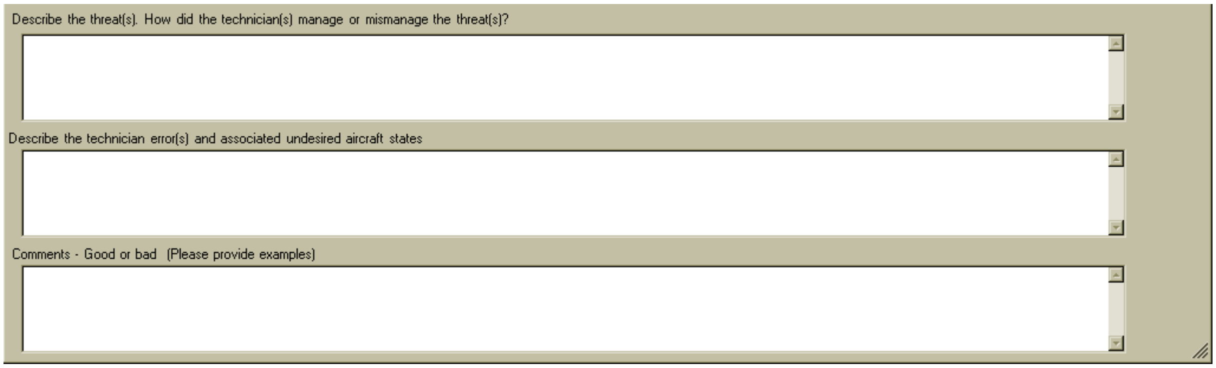
3) Edit Threats: button is enabled <u>when</u> 'Safety/Risk' has been set to 'At Risk.'

    a. If no Threats exist for the item, clicking the 'Edit Threats' button will open an input form to Threat Records.
    b. If Threat records exist for the item, clicking the 'Edit Threats' button will open the 'Threat data grid' to view all existing Threat records. Edit an existing record by double-clicking the box to the left of the first column of the record (a row indicator arrow will appear in this box when you click anywhere on the row).

4) General Remarks: textbox to enter comments about the observable item. A comment may be entered regardless of Safety Risk status (i.e., N/A, Safe, At Risk, Did not Observe). Remarks can be entered by:
    a. typing directly into the textbox
    b. double-clicking in the textbox to open a separate text input form.



5) Description and Comment textboxes: textboxes to enter descriptions of threats and technician errors, and general comments. Comments may be entered regardless of Safety Risk status (i.e., N/A, Safe, At Risk, Did not Observe) or identified threats.

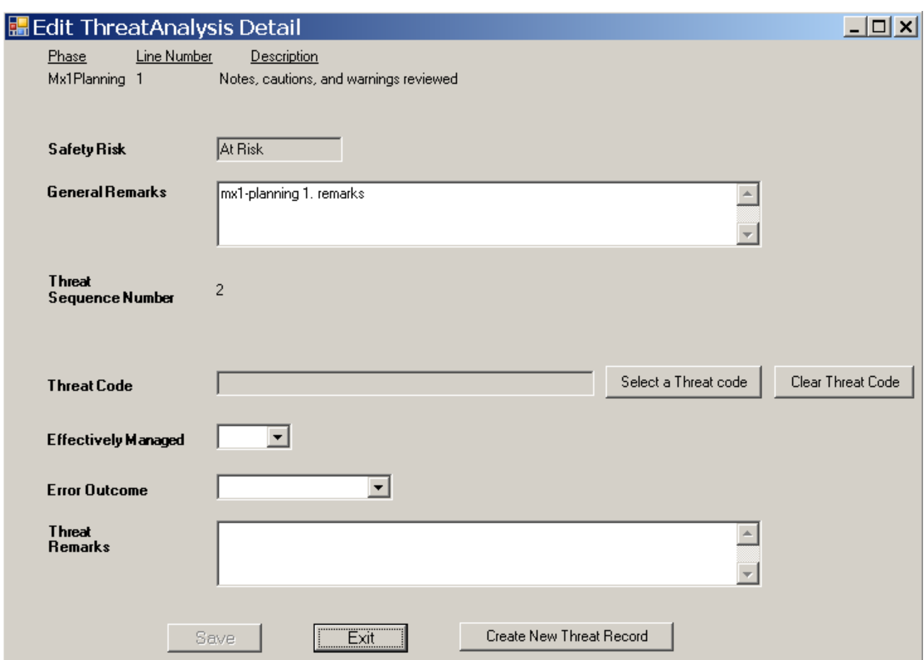


Threat Records

The number of threat records will appear in the '# Threats' message to the right of the 'Safety/Risk' column. The message will display '0' if no threats exist. Note: the Safety Risk must be set to 'At Risk' to add a threat.

1) Add records using 'Edit Threat Analysis Detail' form: if no current threat records exist for an item, clicking on the 'Edit Threats' button will open the 'Edit Threat Analysis Detail' form to add a new record.
2) Edit records using the 'Edit Threat' data grid: if an item has a current, or existing threat record, clicking the 'Edit Threats' button will open will open the 'Threat data grid' to view all existing Threat records. From the 'Edit Threats' window, you can edit an existing record by double-clicking the box to the left of the first column of the record (a row indicator arrow will appear in this box when you click anywhere on the row).
3) Add records using the 'Edit Threat' data grid: you can add a new threat record by clicking the plus sign in the toolbar of the 'Edit Threats' data grid form to open the 'Edit ThreatAnalysis Detail' form.

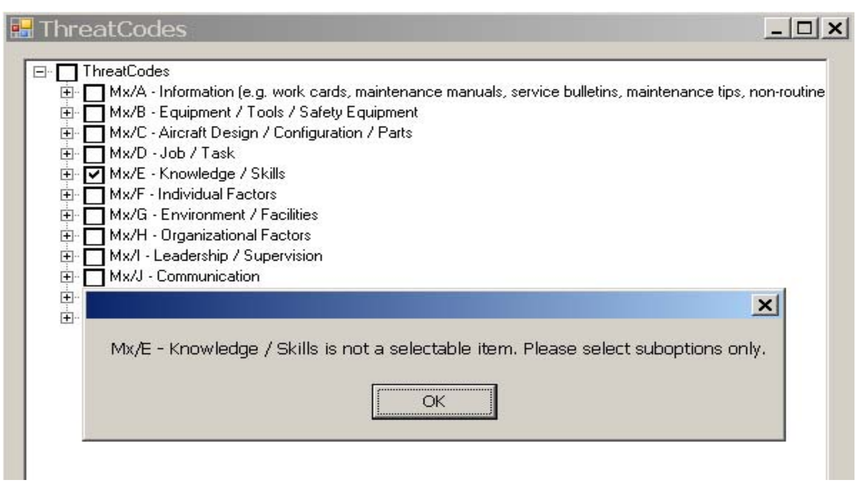
Threat Analysis Detail form: accessed by clicking the 'Edit Threats' button to add a new threat record when no records currently exist, or through the data grid using the plus sign button on the data grid tool bar when threat records exist.



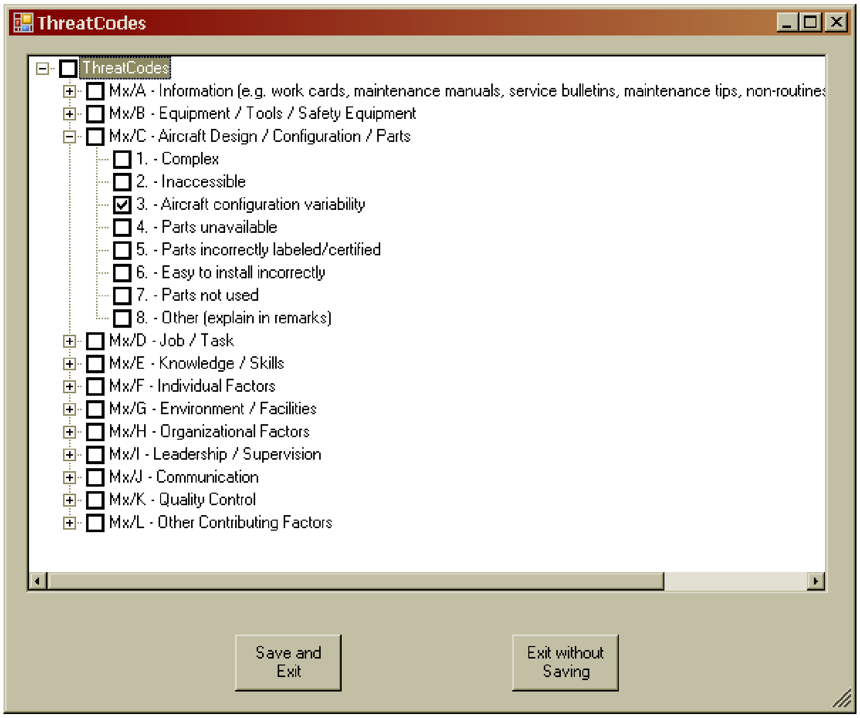
The top of the Edit Threat Analysis Detail form shows information for the item to which the threat is being added, specifically, the Phase (data-collection form); Line Number (observable item on the form), and Description (description for the observable item). Other information displayed and information collected includes:

1) Safety/Risk: this field is read only and cannot be changed from this detail form.
2) General Remarks: remarks about the observable item. Entered from the data-collection form, but can be changed in the Threat Analysis Detail form.
3) Threat Sequence Number: this field an internal counter of the number of threat combinations for the current item, and cannot be changed.
4) Threat Code: displays the threat code that was selected using the ‘Select a Threat Code’ button.
5) ‘Select a Threat Code’ button: clicking this button will display the Threat Codes form to select threat codes.
6) ‘Clear Threat Code’ button: clicking this button clears the selected threat code.
7) Effectively Managed: defaults to blank (no selection) and can be changed using the dropdown list. Note that if either ‘Yes’ or ‘No’ is selected, a threat or error code must be identified.
    a. No selection (default)
    b. Yes
    c. No
8) Error Outcome: defaults to blank (no selection) and can be changed using the dropdown list. Note that if either ‘Inconsequential’, ‘Undesired State’, or ‘Additional Error’ is selected, a threat or error code must be identified.
    a. No selection (default)
    b. Inconsequential
    c. Undesired State
    d. Additional Error
9) Threat Remarks: use to add remarks about the threat codes added. Note that if this field is not blank, a threat or error code must be identified.
10) ‘Save’ button: saves any changes made on the form.
11) ‘Create New Threat Record’ button: resets the detail form and adds a new Threat.
12) ‘Exit’ button: closes the Edit Threat Analysis Detail.

Threat Codes forms: Clicking the ‘Select a Threat Code’ button opens the Threat Codes form. The categories presented are NOT selectable and must be expanded to view the selectable codes. <u>ONLY</u> one threat code can be selected; selecting a category or selecting more than one code will result in an error.

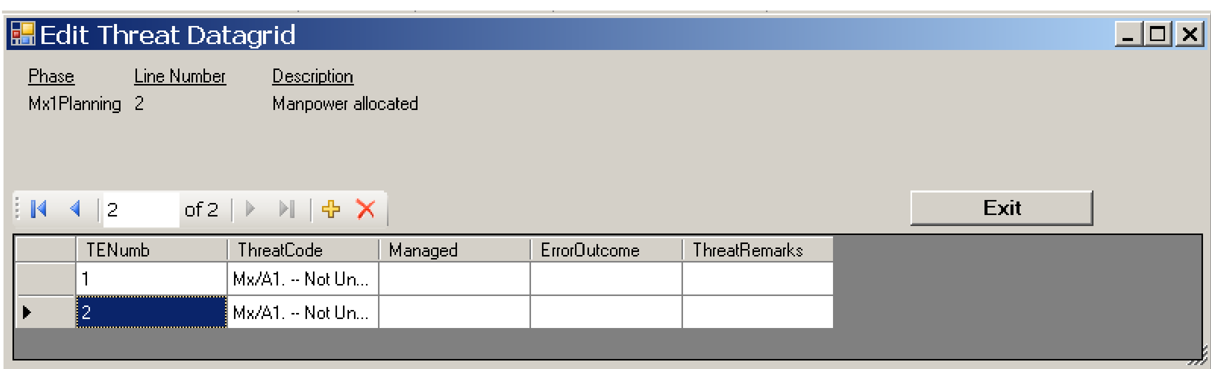


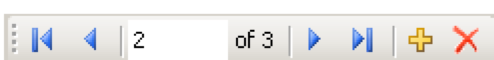
Click the plus (+) sign to the left of each category to expand each branch of code options. Only numbered codes are selectable.



Threat data grid: This form opens automatically after a threat has been added. This data grid shows each threat for the current observable item and can be used to add new codes, or edit or delete existing codes. The current observable item is displayed at the top of the form under Phase, Line Number, and Description.

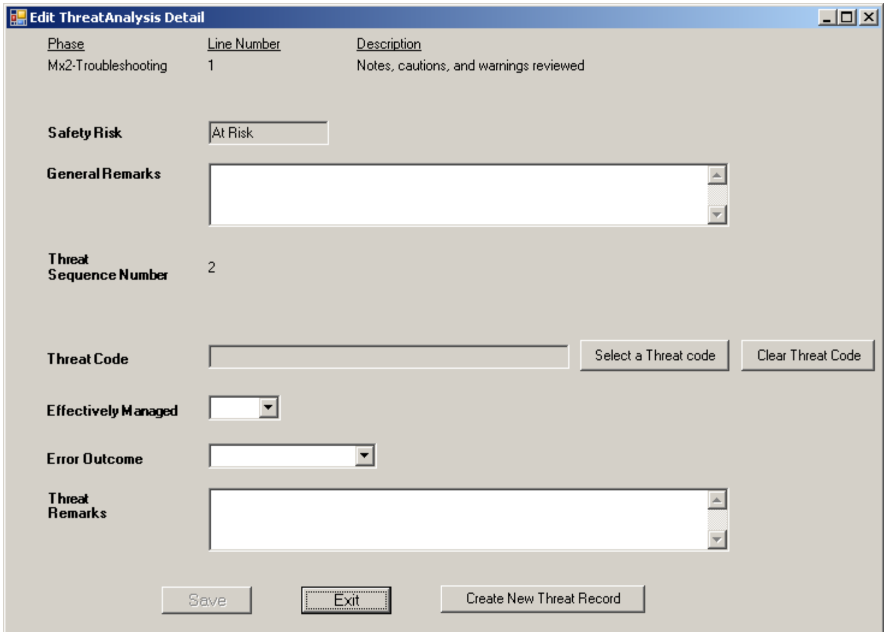
Columns of the data grid can be sorted and expanded. To sort, click anywhere in the column-name row. To expand, place the cursor on the vertical bar separating two columns on the column-names row, and double-click to automatically set the width to the longest record length, or click and drag to set the width manually.



The navigation bar 

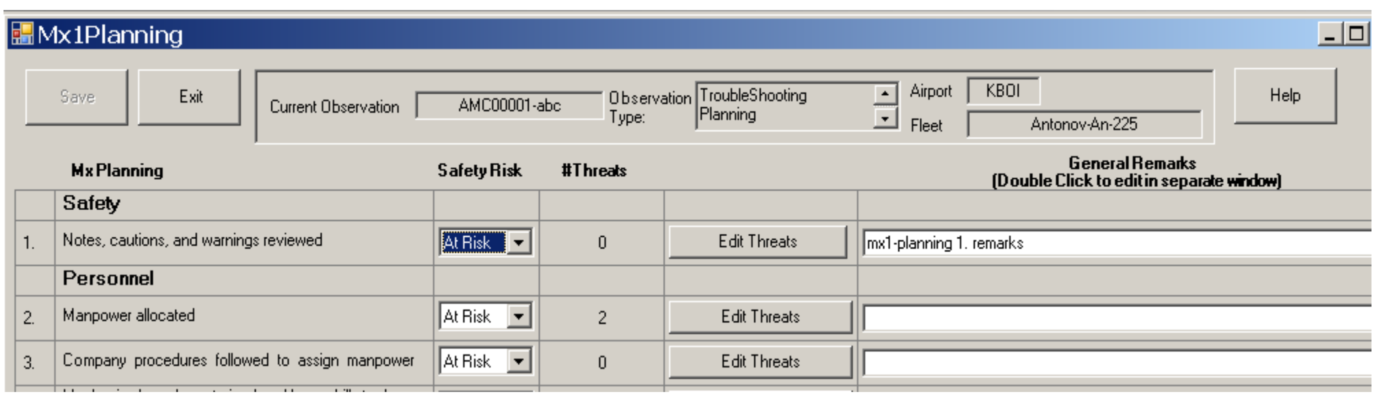
can be used to move forward or backward one record using the right or left arrow, respectively. The outside arrows with vertical lines can be used to navigate to the first or last records.

Add New Threat Codes using the data grid: click the plus sign  in the navigation bar to open the Threat Analysis Detail form and add a new threat code.

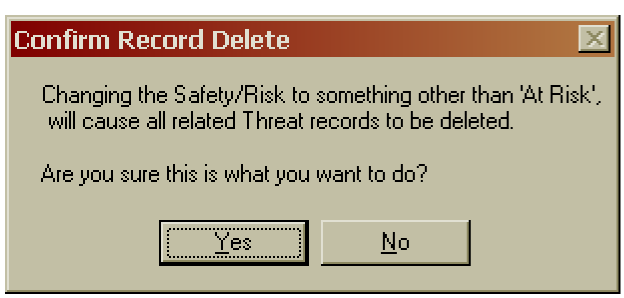


Delete Individual Threat Codes using the data grid: single-click the box to the left of the first column to highlight the record (do not double-click), and click the delete  button in the navigation bar to delete the selected record. You will be prompted to confirm the record deletion.

Delete ALL Threat records associated with an individual observable item: use the Safety Risk dropdown list to change the safety risk to an option other than 'At Risk' to delete ALL threats associated with a particular item.



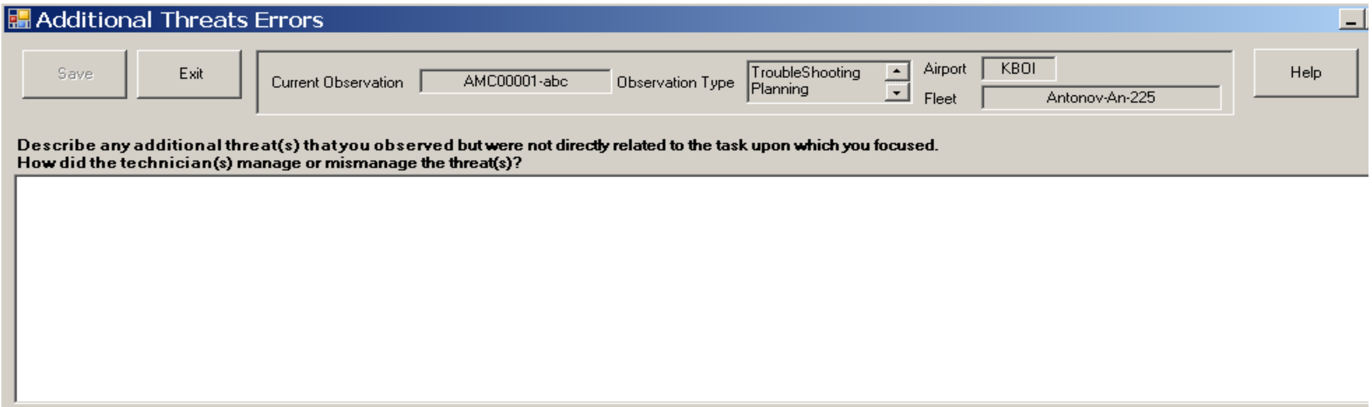
Changing the 'Safety Risk' to any option other that 'At Risk' displays a delete confirmation message. Selecting 'Yes' will delete ALL associated threat/error records for that item.



Additional Threats tab (detail)

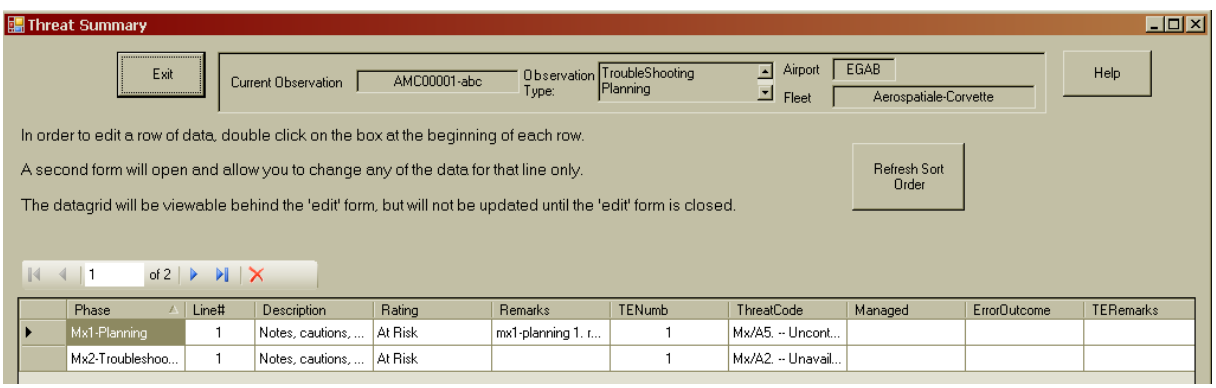
This tab displays an input form to collect information regarding threats observed that were not directly related to your task. The Additional Threats form displays the current observation at the top of the form (Current Observation, Observation Type, Airport, Fleet). The form collects the following types of information:

1) Technician management of threat(s)
2) Describe observed technician errors
3) Comments



Threat Summary tab (detail)

The Threat Summary tab displays a data grid summary list of all 'At Risk' items observed in the data collection forms for the current observation. Only items containing data are shown in the summary table. The current observation is displayed at the top of the form (Current Observation, Observation Type, Airport, Fleet).



1) 'Refresh Sort Order' button: Columns of the data grid can be sorted by clicking anywhere in the column-name row. To reset the order, click the Refresh Sort Order button.

The navigation bar 

can be used to move forward or backward one record using the right or left arrow, respectively. The outside arrows with vertical lines can be used to navigate to the first or last records.

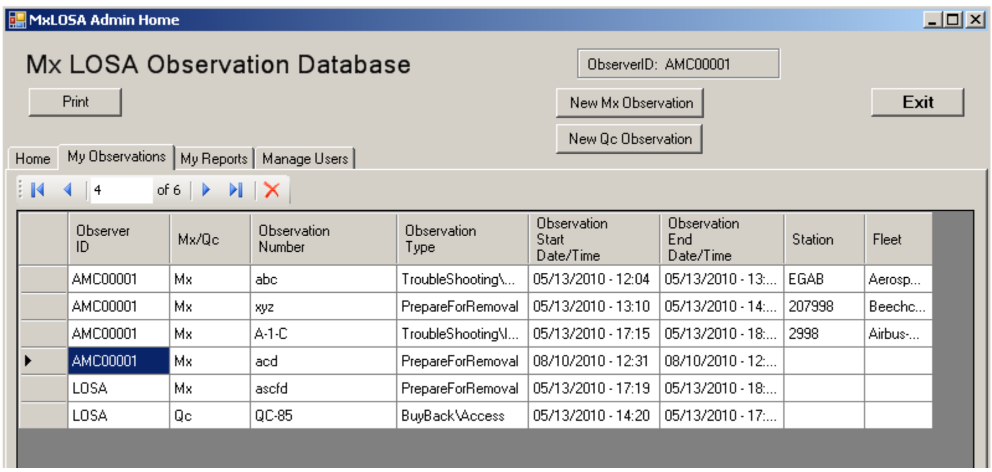
Columns may be automatically expanded by placing the cursor on the vertical bar separating two columns on the column-name row and double-clicking, or manually by clicking and dragging the column separator to set the width.

Delete a threat record using the Threat Summary data grid

Single-click the box to the left of the first column to highlight the record (do not double-click), and click the delete  button in the navigation bar to delete the selected record. You will be prompted to confirm the record deletion.

My Observations Tab

This tab displays a list of existing observations for *all observers*. Viewing all observers is an administrator-level function. Non-administrative observers can view only observations created using their specific Observer ID.



Existing Observations

Columns of the data grid can be sorted and expanded. To sort, click anywhere in the column-name row. To expand, place the cursor on the vertical bar separating two columns on the column-names row, and double-click to automatically set the width to the longest record length, or click and drag to set the width manually.

The navigation bar 

can be used to move forward or backward one record using the right or left arrow, respectively. The outside arrows with vertical lines can be used to navigate to the first or last records.

View or edit an existing observation

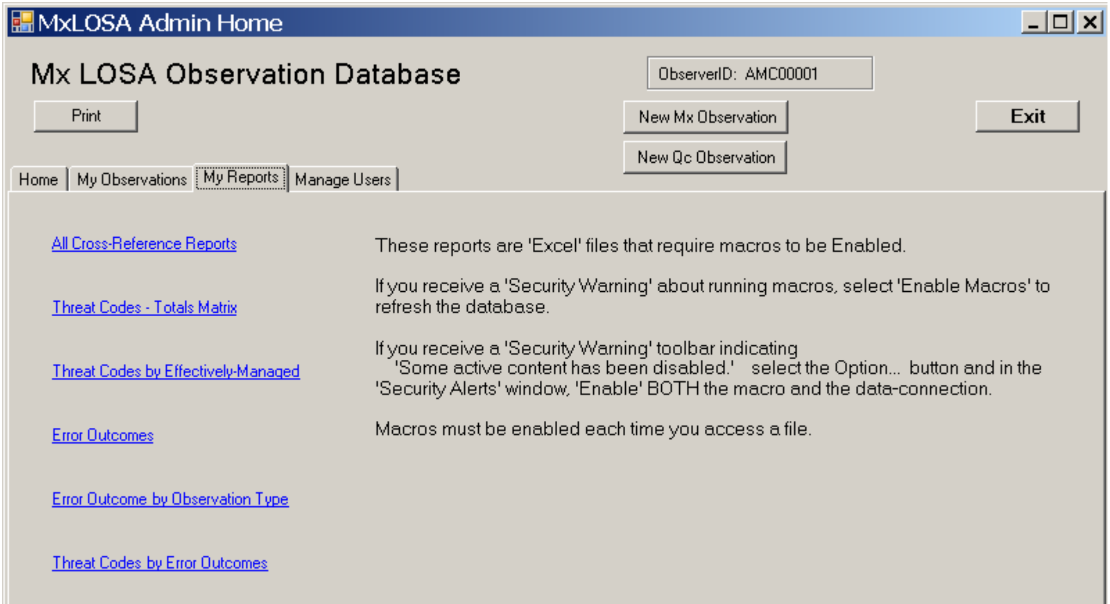
To view or edit an observation, double-click the box to the left of the first column of the desired observation (a row indicator arrow will appear in this box when you click anywhere on the row). The observation will open in the Demographics data-collection form and all subsequent forms will be accessible.

Delete an existing observation (administrator only option)

To delete an observation, single-click the box to the left of the first column of the desired observation (a row indicator arrow will appear in this box when you click anywhere on the row), and click the delete  button in the navigation bar to delete the selected record. You will be prompted to confirm the record deletion.

My Reports Tab

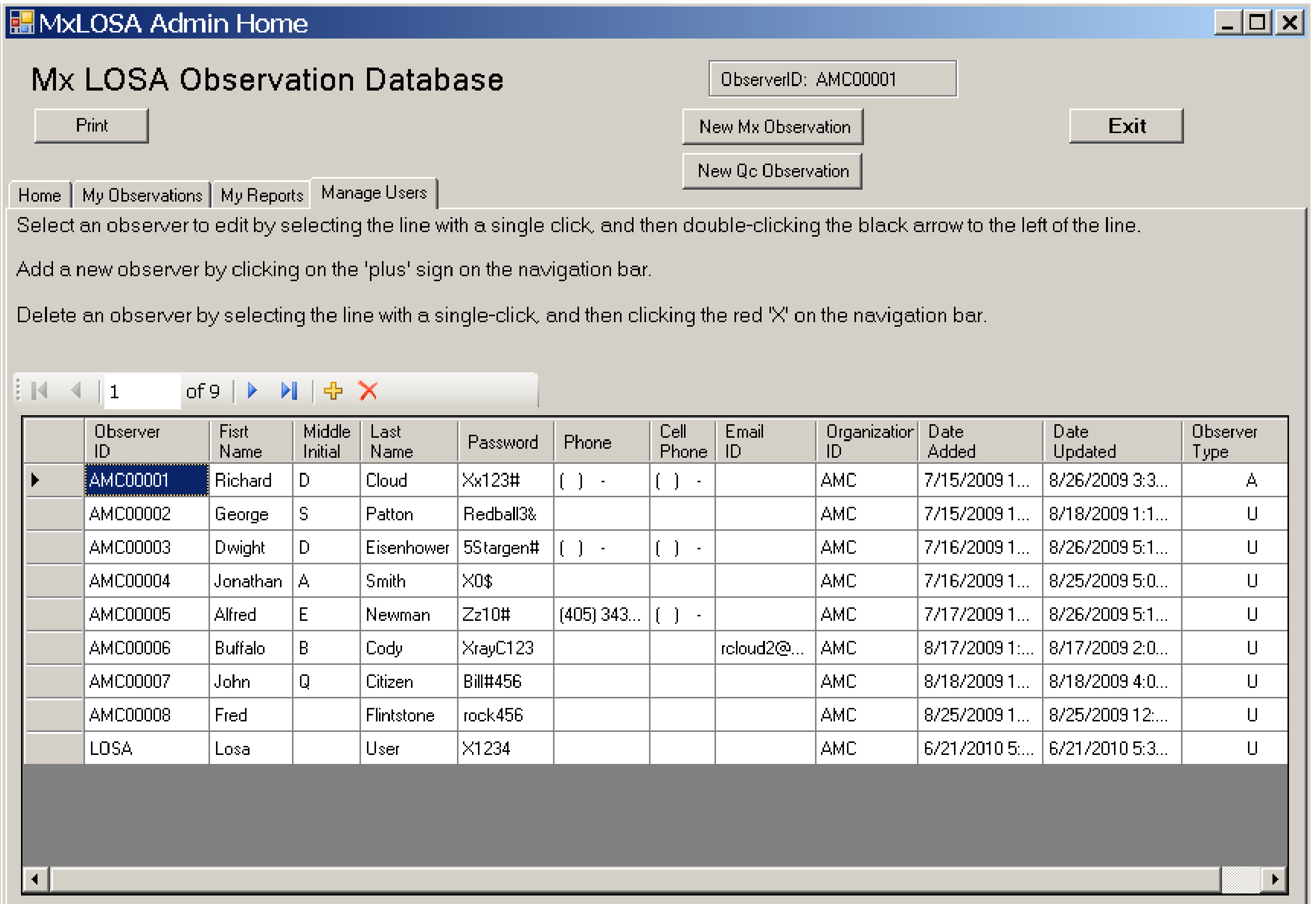
This tab displays a list of links to access Excel spreadsheet reports of data in this application. Excel macros must be enabled for reports to properly update and must be enabled each time the report is accessed.



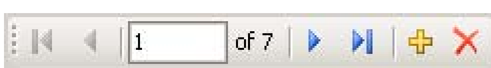
1) All Cross-Reference Reports
2) Threat Codes – Totals Matrix
3) Threat Codes by Effectively-Managed
4) Error Outcomes
5) Error Outcome by Observation Type
6) Threat Codes by Error Outcomes

Manage Users Tab

This tab allows administrators to add, modify, and delete LOSA users, both observer-level and administrator-level users.



Columns of the data grid can be sorted and expanded. To sort, click anywhere in the column-name row. To expand, place the cursor on the vertical bar separating two columns on the column-names row, and double-click to automatically set the width to the longest record length, or click and drag to set the width manually.

The navigation bar 

can be used to move forward or backward one record using the right or left arrow, respectively. The outside arrows with vertical lines can be used to navigate to the first or last records.

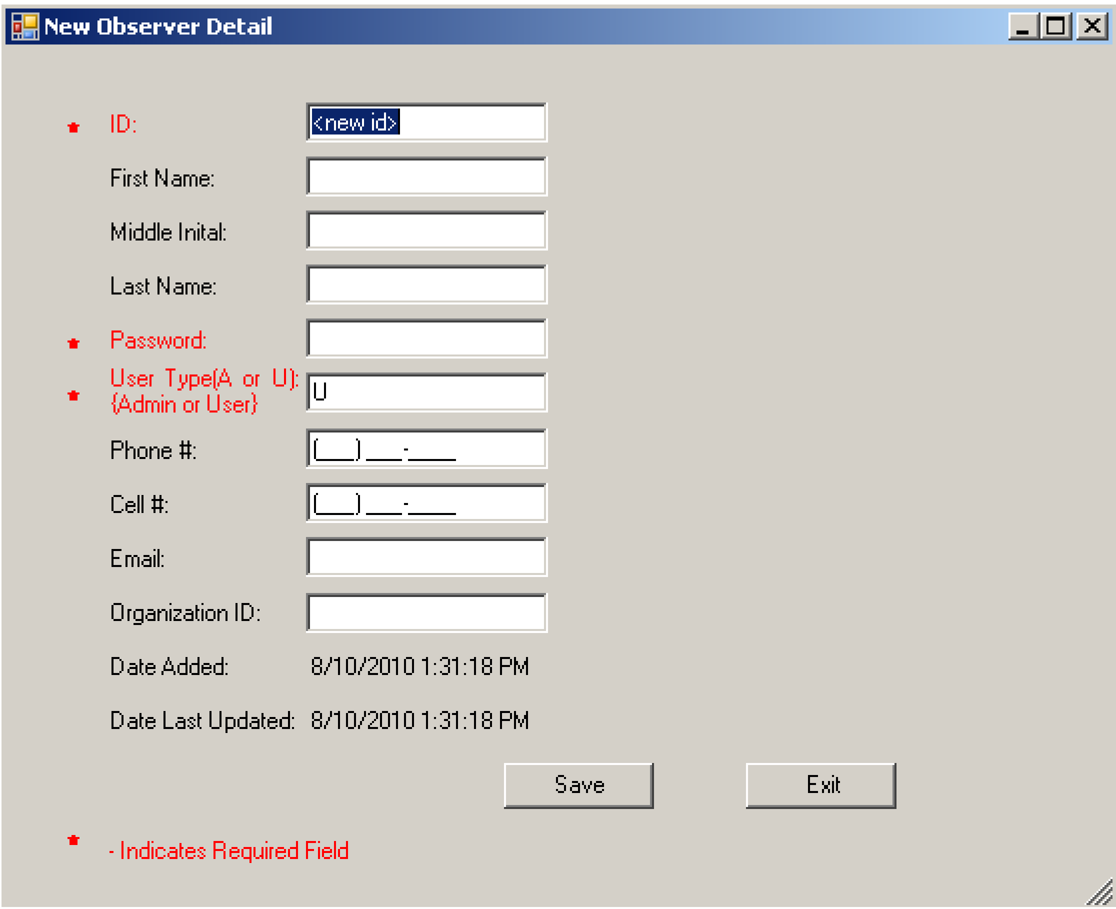
View or Edit Existing Observers

Double-click the box to the left of the first column of the desired observer (a row indicator arrow will appear in this box when you click anywhere on the row). The observer's information will open in the Edit Observer Detail form.

Add Observers

Click the plus button on the navigation bar to open the New Observer Detail form. The detail form for new observers has several required fields as indicated on the form by red text and asterisks (*). These fields must be completed to save the new observer. Required fields include:

1) ID*
2) Password*
3) User Type:* defaults to ‘U’ (User/Observer) and can be changed to ‘A’ (Administrator) by typing directly into the textbox.



Delete Observers

Click anywhere in the row of the desired observation and click the delete button in the navigation bar to delete the selected record. You will be prompted to confirm the record deletion.