



Incident Reporter™

Risk / Quality Management & Cost Tracking Program



Product Information

Version 2

12.20.09

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Incident Reporter v2

Risk / Quality Management & Cost Tracking Program

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Incident Reporter v2

Risk / Quality Management & Cost Tracking Program

1. IR OVERVIEW

A. FUNCTIONAL REQUIREMENTS

Incident Reporter™ is a powerful and affordable hosted SMS software application that streamlines and simplifies your aviation risk and quality management processes. Now in its third year of development, IR version 2 is in use by more than sixty worldwide airports, air carriers, charter operators, EMS providers and corporate flight departments.



Incident Reporter v2 has been developed in accordance with aviation SMS risk management principles contained in:

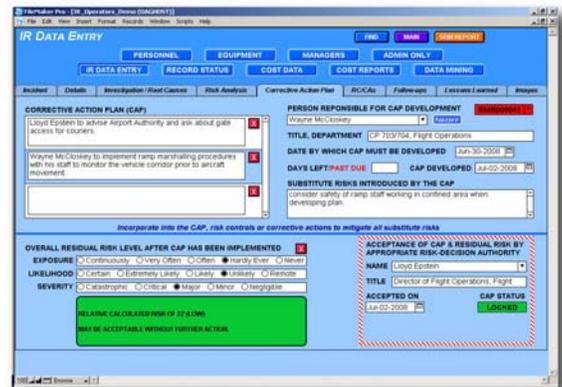
- ➔ ICAO Document 9859: Safety Management Manual
- ➔ IATA's Safety Management Systems; The Senior Airline Manager's Implementation Guide
- ➔ FAA's SMS Framework, SMS Assurance Guide (revs. 2 dated 07.15.09), AC 120-92, and AC 150/5200-37
- ➔ Canadian Aviation Regulations Part 1, Subpart 7: Safety Management System Requirements
- ➔ Transport Canada Advisory Circular AC-107-001: Guidance on Safety Management Systems Development

IRv2 meets all ICAO, Transport Canada, FAA and JAA / EASA functional requirements for risk assessment, accountability, documentation and controls.

B. POWERFUL RISK / QUALITY MANAGEMENT AND COST TRACKING TOOLS

Incident Reporter has been designed from the ground up to be intuitive and user-friendly. IRv2 is utilized in conjunction with Omni Air Group's SMS Manual, supporting programs, and Online SMS Training for a complete SMS solution, or may easily be integrated into existing Safety Management Systems. It's important to note that Incident Reporter IS NOT a Safety Management System in and of itself; the program will however become the "heart" of any SMS into which it is integrated, and is a highly effective risk and quality management tool.

Data is collected from Safety Assurance processes such as system / task analysis and employee reports. Hazards, near-accidents and other events are investigated, root causes are determined, and risk analysis is performed. Corrective Action Plans (CAPs) are developed and tasks assigned to appropriate managers, with target dates for the completion of each risk control or corrective action. Monitoring the implementation of these risk controls and corrective actions helps to ensure their effectiveness, and follow-up audits confirm satisfactory results.



Lessons learned from managing each event are then communicated to personnel and industry, further enhancing organizational safety.

All of these activities are documented and tracked in the IR database. Upon completion of the process, records are closed and “locked” to preserve their integrity. Controls built into the program prevent the closing of a record until all associated tasks have been accomplished and follow-up audit results are satisfactory.

2. INCIDENT REPORTER LICENSING AND ACCESS

Incident Reporter is licensed for use on a subscription basis by aviation enterprises as end-users. It is a “hybrid system”, in that it is accessible from supported web browsers, as well as a secure client-server application, [FileMaker Pro](#).

Online reporting is accessible to your employees through supported web browsers, from anywhere in the world. These reports populate the database and generate auto-email notifications to managers of reports received. Links within these emails permit managers to immediately access these reports via web browser (from an iPhone, BlackBerry, or other PDA if desired) and assign investigation responsibilities to appropriate department or base managers.

Managers also use their **FileMaker Pro** client-server applications to assign login names, edit Value Lists, perform data entry, and command IR’s powerful data mining, trend reporting and data export capabilities, including full integration with Microsoft Office. For more information, see the document: [How to Integrate FileMaker Pro with Microsoft Office](#)

A. DATABASE HOSTING

OAG employs the same state-of-the-art co-location facilities used by financial institutions to ensure your sensitive safety data is secure and delivered at 99.96% uptime reliability. Housed in a climate and humidity controlled, fingerprint secure “cleanroom” with multiple internet pipelines and backup generators, our servers have redundant power supplies, multiple redundant drives, firewalled with intrusion detection / protection and access logs at the user level. All communications with your IR database (both via web browser and the FM Pro client application) use SSL (Secure Socket Layer) protocol to ensure the highest level of security. Databases are backed up every 3 hours, and full system backups are performed each night and retained for six months. Advantages include high levels of physical security, intrusion detection/protection, automated backups, on-site support, and lifetime software upgrades.

B. CLIENT LICENSES

The FileMaker Pro client-server license permits department managers and administrators to access the full functionality of IR (including printing reports and data import/export), over a secure SSL internet connection. The FM Pro application is recommended for each manager who will be managing risk and quality issues within IR, and may be purchased from OAG for \$150.00 USD per license. Managers may also access the IR database via supported web browser for data entry and task assignment via email, from anywhere an internet connection is available. This includes access via BlackBerry, iPhone or other PDAs.

3. FEATURES AND EASE OF USE

Using Incident Reporter (IR) is easy. Here are just a few of IR's many features:

- ➔ Incident Reporter generates automatic emails when a report is received. From your iPhone or other PDA, you can receive the email, link back to IR and login with the touch of a button, and assign one of your people to investigate, in seconds!
- ➔ Menu choices are user-customizable, so you can define the types of events you want to capture, equipment utilized, stations served and other data that is unique to your operation.
- ➔ IR easily imports up to six photos or reference files / source documents per record.
- ➔ Tooltips direct users to **reference tutorials**, where written guidance and examples help users through various risk management processes, such as how to develop an effective Corrective Action Plan.

Familiarize yourself with Incident Reporter by viewing a 30-minute [demonstration video](#).

A. ONLINE REPORTING

ONLINE REPORTING FORM
Record Created: Jun 02 2008 @ 11:42:18 AM

If you do not want to submit a report at this time, please click CANCEL and close your Web browser to log out

DATE OF OCCURRENCE: TIME (24h):

TYPE OF EVENT: STATION:

EQUIPMENT INVOLVED (LIMIT: 4 ITEMS)

TAIL #	MANUFACTURER	MODEL	EQUIPMENT TYPE	SERIAL #	ATA CODE
<input type="text"/>					
<input type="text"/>					
<input type="text"/>					
<input type="text"/>					

EVENT OR HAZARD SUMMARY

DETAILED DESCRIPTION OF EVENT AND HAZARD

WAS IMMEDIATE ACTION TAKEN TO MITIGATE RISK? Yes No N/A

DESCRIBE IMMEDIATE ACTION(S) TAKEN

SUGGESTION(S) FOR CORRECTION

YOUR CONTACT INFORMATION (OPTIONAL)

NAME:

POSITION:

DEPARTMENT (OR COMPANY):

PHONE NUMBER: TYPE:

E-MAIL:

If you want a copy of this report for your records, print it now—using your Web browser's Print command—before you click on the SUBMIT button at right.

Incident Reporter supports *Instant Web Publishing*. This feature allows you to set up your IR database for Online Reporting. In addition to online reporting, managers and users may also perform data entry while in the field. Access to your IR database via the internet, whether for reporting purposes or for data entry, requires a supported web browser.

Windows web users need Microsoft Internet Explorer version 6.x or Firefox 1.x on Windows.

On the Mac OS, web users need Safari 1.2.x (Mac OS X 10.3), Safari 2.0.x (Mac OS X 10.4) or Firefox 1.x only. On both platforms, some earlier versions of Microsoft Internet Explorer and Safari are blocked.

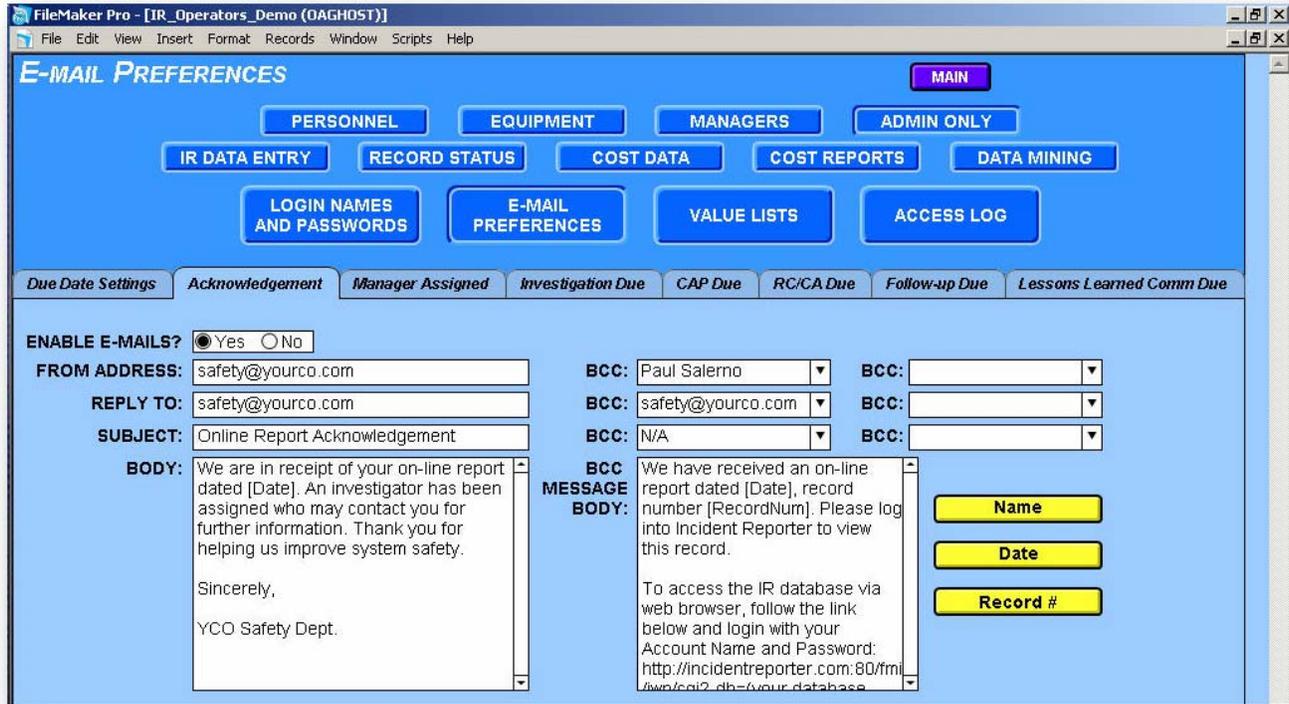
Other Mozilla family browsers are not blocked but are unsupported, and users will receive a dialog encouraging them to upgrade to a supported browser. *JavaScript must be enabled in the web browser.*

4. EMAIL NOTIFICATIONS

IR supports automatic and manual email notifications for various risk management processes throughout the program. For example, when an online report is received, an acknowledgement of receipt is sent to the reporter, *provided the reporter includes a valid email address in the report*. In addition, receipt-of-report notification may also be sent to up to six user-specified managers. This ensures timely notification to key managers that a report has been received.

Email notifications may also be manually sent, or set by administrators to automatically alert users of approaching due dates for various risk management processes, such as when:

- ➔ A manager is assigned to investigate an event or other safety issue
- ➔ Results of an investigation are due
- ➔ The development of a Corrective Action Plan (CAP) is due
- ➔ Implementation of a Risk Control (RC) or Corrective Action (CA) is due
- ➔ A follow-up audit is due
- ➔ A communication of Lessons Learned is due



For all of the above events (except report acknowledgement and when assigning a manager to investigate a report) you can set the number of days in advance of the due date that an automatic e-mail will be sent.

Note:

For more information regarding online reporting with Incident Reporter, see the document titled: *Online Reporting with IR*.

5. VALUE LISTS

To facilitate data entry into IR, most fields contain pop-up or drop-down menus. Users with admin authority may customize and add to the selections available in these drop-down menus by going to VALUE LISTS at any time. The types of events you wish to capture, airports served, types of missions, and other information unique to your operation is entered here. For maintenance and equipment reliability tracking, ATA codes are offered.

Irregularities, hazards, errors, quality escapes and other events may be tracked, measured, and reported under classes such as Safety, Security, Environmental Protection, Occupational Health, Customer Service, and other user-defined headings. Under these classes, events may be further defined within the TYPE OF EVENT category.

Changes or additions to value list entries automatically change the options available for selection on drop-down menus. One-time entries may also be made by clicking in a field. These features make data entry fast and easy, while reducing data entry errors.

NOTE:

Value List entries under the REPORTED VIA category permit sources of data from Safety Assurance activities to be tracked throughout the course of all Safety Risk Management processes. Associating each Risk Management Record (RMR) with an OPERATIONAL PROCESS permits managers to rapidly locate all risk controls associated with a process for performance of Internal Audits and Internal Evaluations.

6. IR DATA ENTRY

A. INCIDENT TAB

IR's Main Screen presents when the program launches. The main screen is customized with your organization's logo and graphics. Clicking on *IR Data Entry* reveals the Incident Tab:

The screenshot shows the 'IR DATA ENTRY' window with the following data:

- TYPE OF EVENT:** Flight Interruption
- CLASS OF EVENT:** Quality
- DATE OF EVENT:** Oct-01-2009
- TIME (24H):** 7:30 UTC
- RECORD:** RMR000368
- OPENED:** Oct-03-2009
- AIRPORT:** BFI
- LOCATION:** Taxiway
- WEATHER:** Icing Conditions
- VISIBILITY:** 1 Mile
- PIC:** Turcanik, Clint
- SIC:** Wright, James
- F/A:** Yip, Karen
- ACM:** N/A
- MISSION:** Charter
- FLIGHT #:** 6335
- PAX:** 32
- FLIGHT RULES:** IFR
- FLIGHT PHASE:** Cruise
- REPORTING SOURCE:** Employee
- via:** ERS - Online Report
- ACKNOWLEDGMENT:** Yes on Oct-03-2009
- OPERATIONAL PROCESS:** Maintenance QC

EQUIPMENT TYPE	TAIL #	REG # or FLEET #	MANUFACTURER	MODEL	SERIAL #	ATA CODE
Aircraft	23	N908FX	ATR	42	02341007	3230 Landing Gear

EVENT OR HAZARD SUMMARY
 Departed R33 YKM taking N908FX to GEG. Upon retracting the gear, the gear unsafe light illuminated. Tried recycling the gear - same problem and returned to YKM for maintenance to check. Landed without occurrence. Contacted dispatch and was released to take N368FX to GEG.

PSALERNO HAS LOGGED ON

This is the first of nine “tabs”, intuitively arranged from left to right in the order of data entry for IR’s various risk management processes. These nine tabs are used to record and track hazards, errors, safety concerns, incidents and other events. By clicking on a tab itself, users easily move from tab to tab, and blue navigation buttons near the top allow users to quickly navigate between screens. The record above is OPEN as indicated in red.

Users may enter data manually or import data with the *Import Records* command from an XML Data Source (such as a reporting form on your company website), from an Excel File (.xls), or from tab-separated or comma-delineated .txt files derived from electronic reporting forms created in MS WORD or in .pdf format. Data from IR may also be exported to these same formats.

NOTE:

An XML Data Source is XML code that is embedded into an HTML page. It requires the use of Microsoft’s XML Data Source Object (DSO), which is a Microsoft ActiveX control built into Internet Explorer 4 and higher. Using this object, it is possible to extract content from a web-based form and import the data into IR.

B. RECORD STATUS SUMMARY SCREEN

RECORD #	DATE OF EVENT	TYPE OF EVENT	CLASS OF EVENT	INVTGATION COMPLETED	CAP ACCEPTED BY	CAP ACCEPTED	RECORD CLOSED
RMR000014	Jun-18-2008	Cust. Service Concern	Quality	Jun-20-2008	Joyce Kohler	Jun-12-2008	Sep-09-2008
RMR000015	Jun-17-2008	Cust. Service Concern	Quality	Jun-23-2008	Don Condor	Jun-23-2008	Sep-09-2008
RMR000016	Jun-22-2008	Incident	Safety	Jul-22-2008	Wayne McCloskey	Aug-01-2008	Aug-01-2008
RMR000017	Jun-23-2008	Scheduling or Communication	Quality				
RMR000018	Jun-23-2008	Flight Delay	Quality	Jun-26-2008	Bob Leeland	Jun-26-2008	Jul-28-2008
RMR000019	Jun-26-2008	Hazard	Safety	Jul-16-2008	Jared Poser	Jul-16-2008	Jul-16-2008
RMR000020	Jun-26-2008	Accident (near)	Safety	Jun-26-2008	Wayne McCloskey	Jul-02-2008	
RMR000021	Jun-25-2008	Flight Delay	Quality	Jul-02-2008			
RMR000022	May-22-2008	Operational Process Deficiency	Safety	Jul-09-2008			

In the **Record Status Summary** Screen, administrators can quickly view the status of each record in the database. Closed records are displayed in green, and open records (those requiring action) are displayed in red. Records displayed in yellow tell database administrators that all risk controls have been completed, and that the record is ready to be closed. Clicking on a record number takes you directly to that record.

C. DETAILS TAB

On the **Details Tab**, a description of the event may be entered or imported from the original reporting source document. This screen also documents whether any immediate actions were taken, and if so, a description of those actions.

IR DATA ENTRY

PERSONNEL EQUIPMENT MANAGERS ADMIN ONLY

IR DATA ENTRY RECORD STATUS COST DATA COST REPORTS DATA MINING

Incident Details Investigation / Root Causes Risk Analysis Corrective Action Plan RC/CAs Follow-ups Lessons Learned Images

DETAILED DESCRIPTION OF EVENT AND HAZARD RMR000393

New Maintenance shift tasked with rectifying some in progress snags. To troubleshoot snags engine runs were required. Aircraft was all closed up. Aircraft brought outside and engine starts carried out. Post engine run AME departed aircraft he could hear fuel pouring out of the RH Nacelle. There was a huge puddle of fuel on ground. Maintenance brought aircraft in hanger and opened RH engine cowling. RH engine fuel delivery line found loose with a piece of flagging tape attached. There was no information recorded anywhere to inform anyone of the loose line except if one might notice the flagging tape (only if cowling were opened). Task determined to be the cause of the loosened line " check RH aux fuel tank for possible leak" JC1103 NP. There was a hand written note on the bottom of task - " Needs to be leak checked". No mention of the loosened line found.

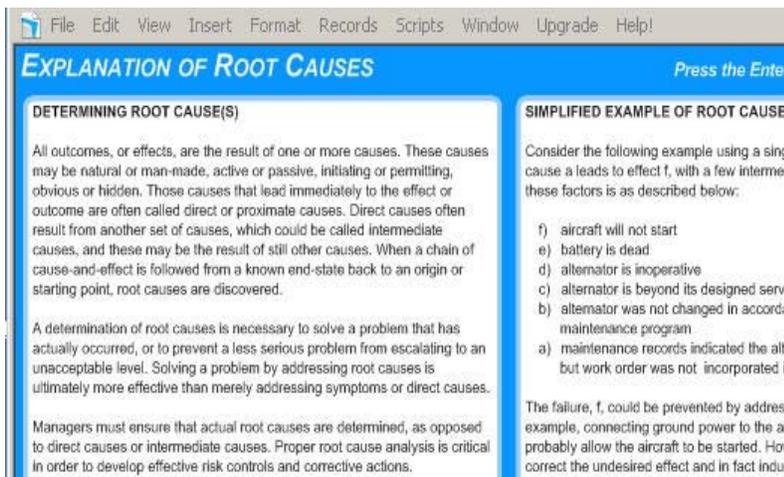
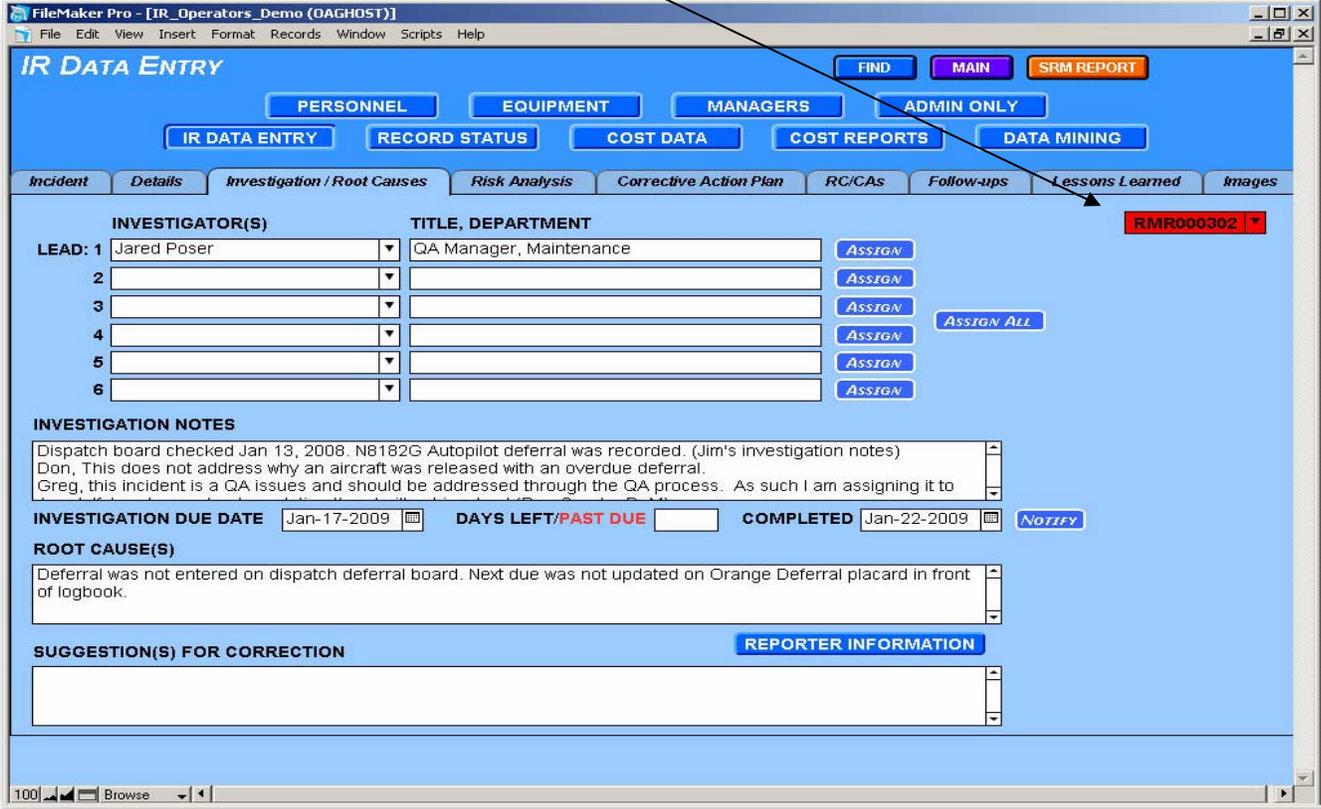
WAS IMMEDIATE ACTION TAKEN TO MITIGATE RISK? Yes No N/A

DE: **Certain incidents or events (such as severe weather phenomena) may be beyond the control of your company to prevent a recurrence. In such cases the event may be recorded in IR, a "NO" answer provided to the question here, and the record closed. No further action is required.**

IS FURTHER ACTION REQUIRED TO MITIGATE RISK OR PRECLUDE A SIMILAR FUTURE OCCURRENCE? (if no further action is required to mitigate risk, the record may be closed by first choosing "No." If further action is required, choose "Yes" and continue with Safety Risk Management processes) Yes No

D. INVESTIGATION TAB

On the *Investigation Tab*, assigned investigators record investigation notes and root causes. When due dates for the completion of tasks are not met, days remaining (displayed in black) become *days past due* and are displayed in red. Program controls prohibit closing of records for which all required tasks have not been accomplished. Open records always display in red.



Throughout IRv2, **reference tutorials** provide written guidance to users for proper accomplishment of the various risk management processes.

Here, users are assisted in their determination of root causes with a reference tutorial that explains the process and provides a basic example.

These reference tutorials greatly speed learning and result in higher quality process outputs from all users.

E. RISK ANALYSIS TAB

The **Risk Analysis** tab permits entering of risk statements and assessments of exposure, likelihood and severity, in order to determine **Relative Calculated Risk**. By assessing exposure, as well as likelihood and severity of the risk, more accurate risk assessments can be made than if likelihood and severity alone are used.

This reference tutorial explains how to develop risk statements.

Here, users are instructed to consider **contributing risk factors** when performing risk assessment.

Identification of contributing factors aids in accurate risk assessment and provides specific targets for corrective action.

F. CORRECTIVE ACTION PLAN TAB

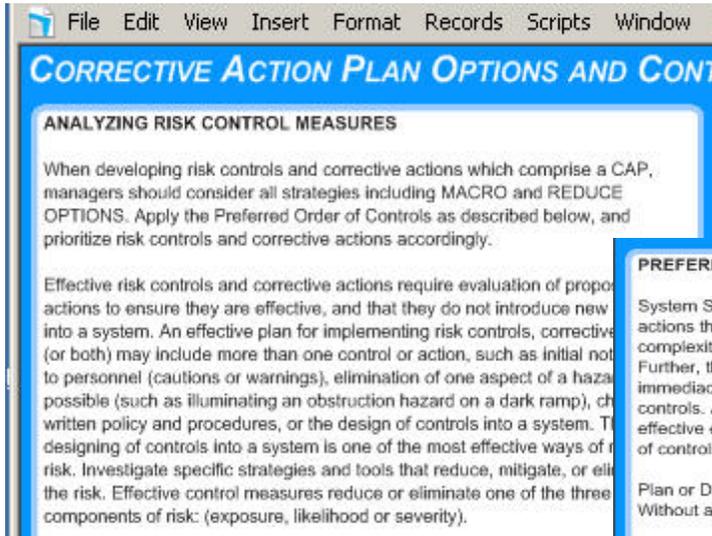
Responsibility for development of a Corrective Action Plan, or CAP (with assignment of due date), is recorded here. Appropriate managers may work individually or jointly on CAP development. The program permits multi-targeted CAPs for several departments, or for a global risk control or corrective action to be applied to all stations your company serves. In addition:

- ➔ Any substitute risks introduced by the CAP are recorded;
- ➔ Risk controls to mitigate substitute risks are developed and documented;
- ➔ An assessment of residual risk after CAP implementation is made;
- ➔ The CAP and residual risk are accepted by the appropriate risk-decision authority.

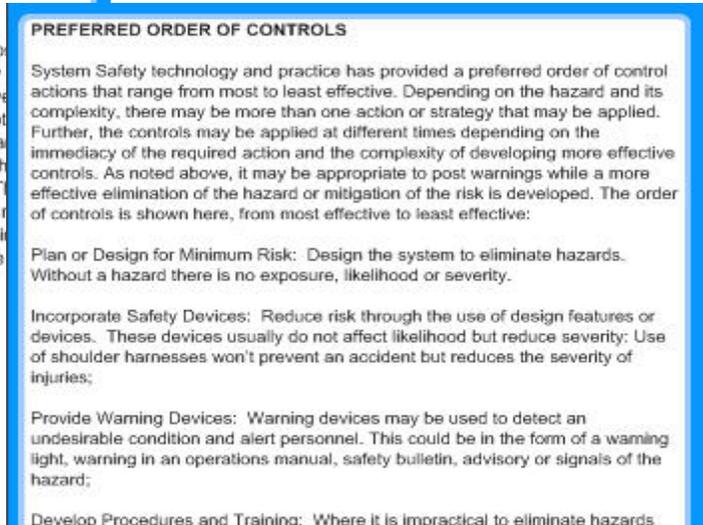
Program controls prohibit administrators from “locking” a cap until all investigation, risk analysis and Corrective Action Plan data is entered. Residual risk must also be assessed and the name and title of the person accepting the CAP must be entered. CAP LOCK further serves as its own control:

- ➔ To preserve the integrity of all data recorded as a result of investigation, risk assessment and Corrective Action Plan development processes;
- ➔ To assure the person accepting the CAP (such as a senior accountable executive or regulator) that the plan will be followed as presented.

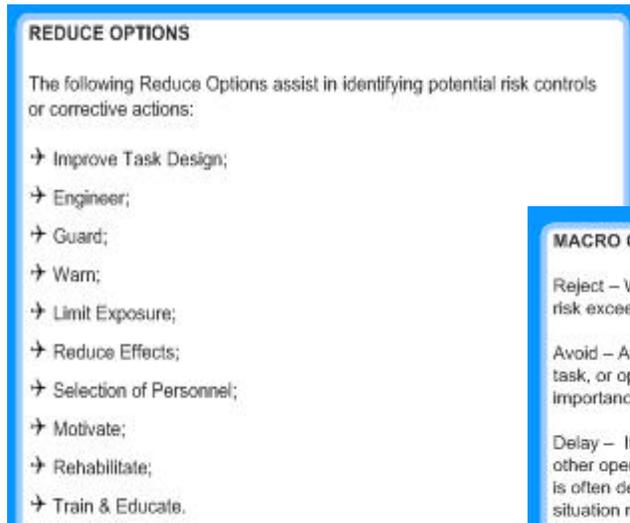
Corrective Action Plan development, assessment of substitute risks, assessment of residual risk, and CAP acceptance by the appropriate risk-decision authority are not complex processes, but unless managers receive adequate training and have ready access to written guidance, process outputs may lack quality.



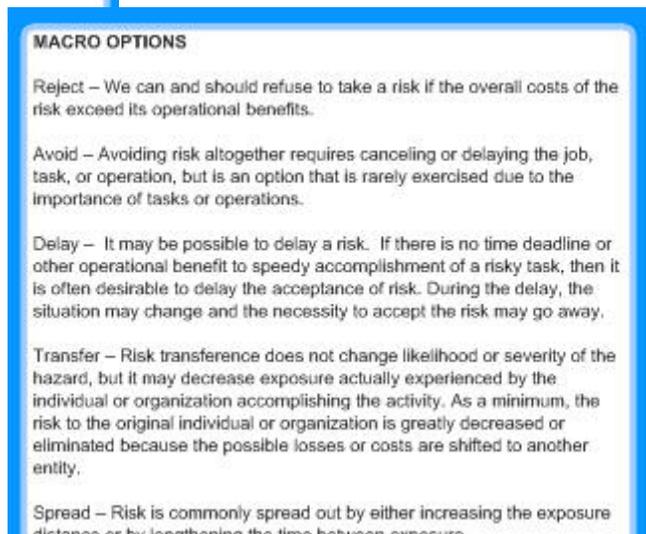
Again, users are assisted in their development of a quality Corrective Action Plan with the help of reference tutorials such as the one at left for analyzing risk control measures.

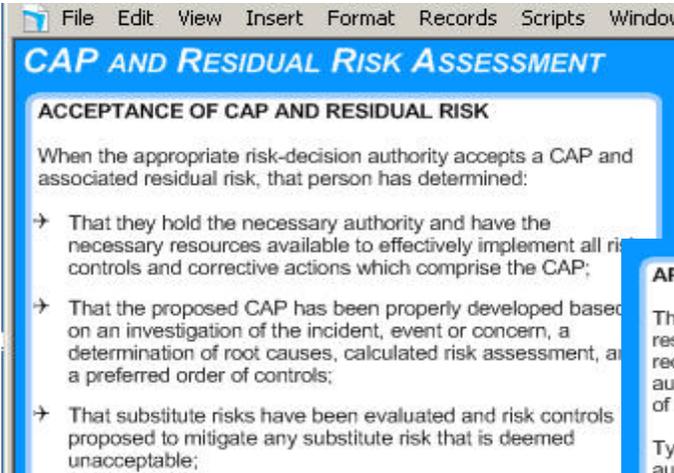


This reference tutorial explains how to use a **preferred order of controls** when developing individual risk controls and/or corrective actions that comprise the CAP.

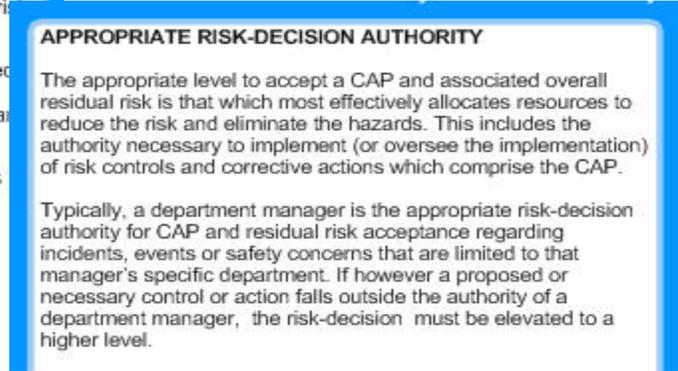


Macro options and reduce options are also provided to assist users in their development of effective risk controls and corrective actions.



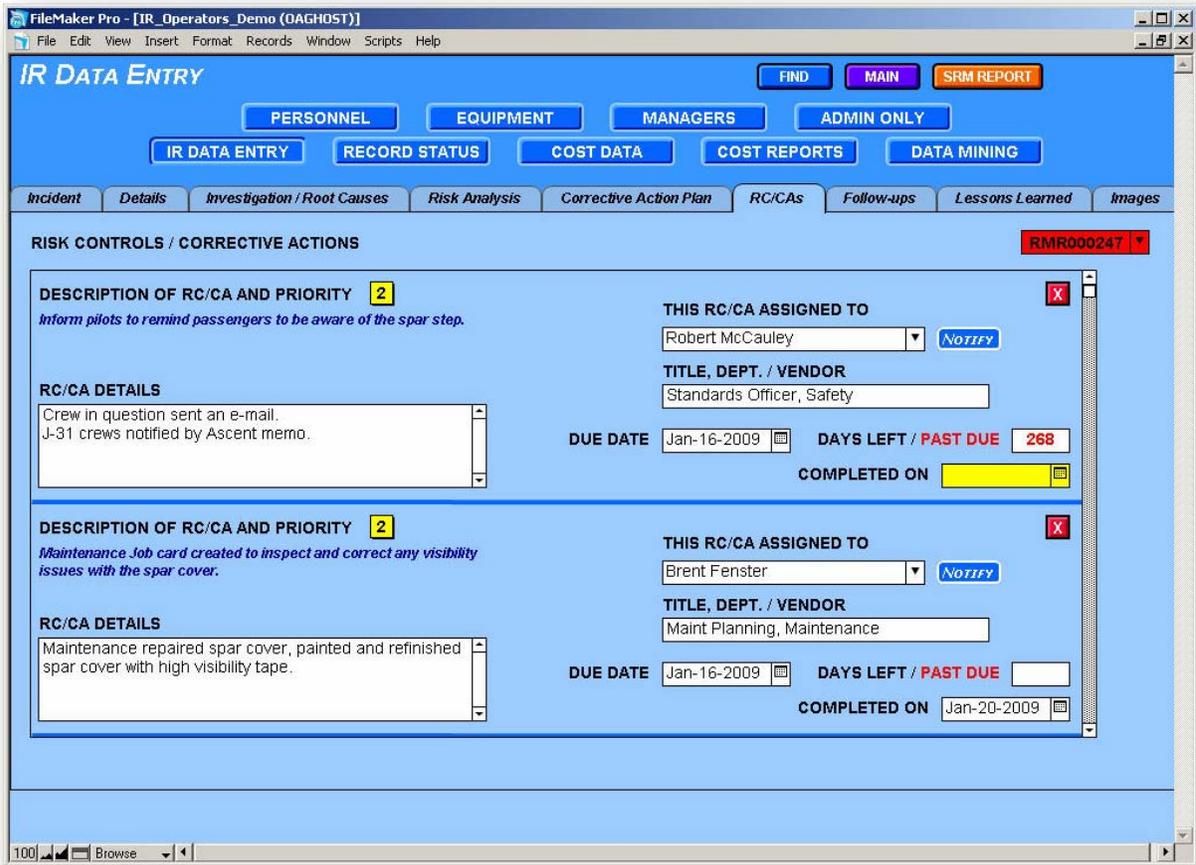


For a Corrective Action Plan to be effective, it should be accepted by the *appropriate risk-decision authority*. These reference tutorials explain to all users how this essential risk management process works, when they may accept a CAP, and when it should be elevated to a higher level of authority.



G. RISK CONTROLS / CORRECTIVE ACTIONS TAB

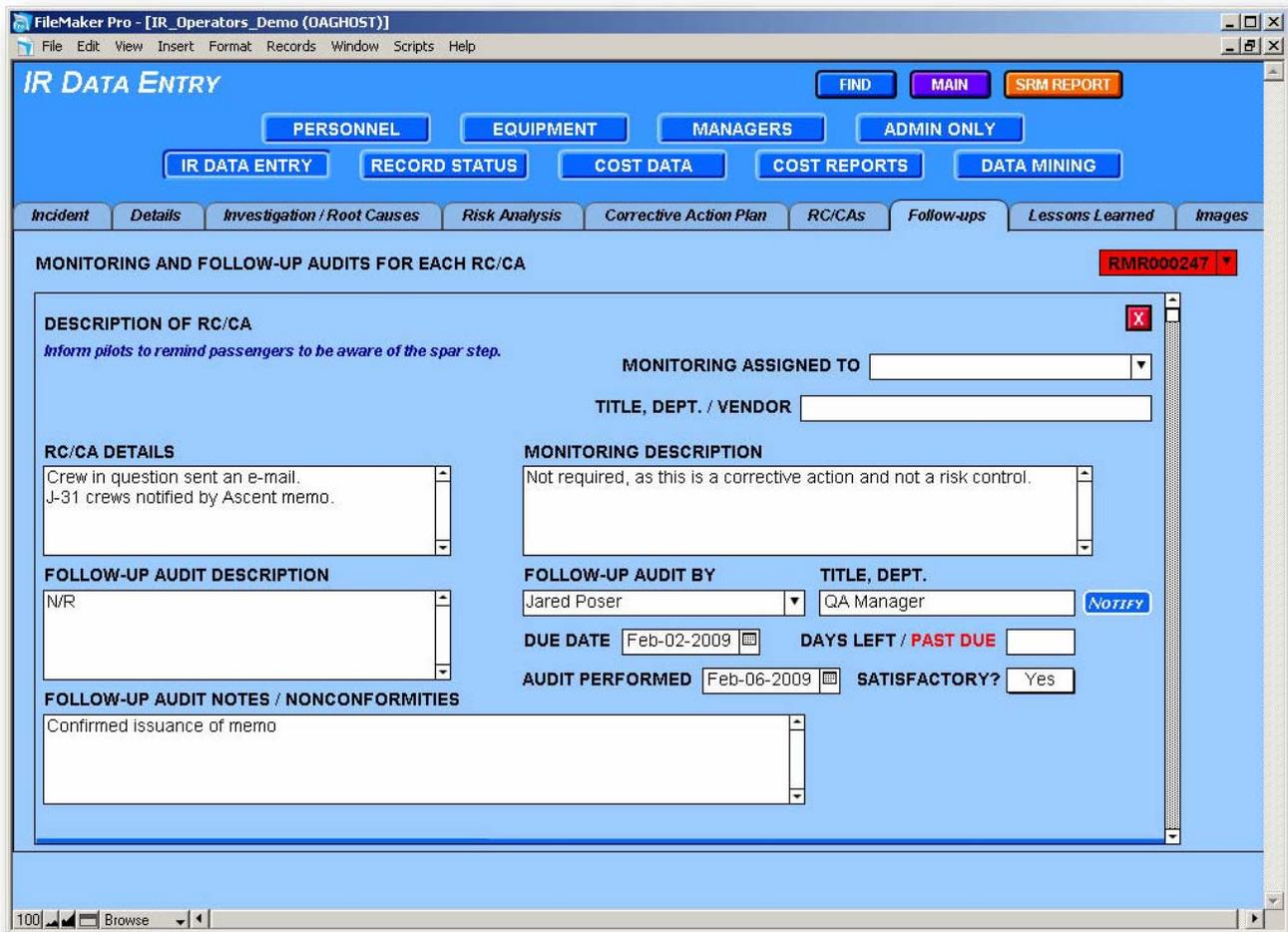
Risk controls and corrective actions are automatically broken out of the CAP and populate the RC/CAs Tab as separate controls or actions (shown in blue text). Additional details are then added to each control or action and assignments made to appropriate managers (or vendor points-of-contact) for implementation.



H. FOLLOW-UPS TAB

On this tab, responsibilities for monitoring of risk controls are assigned. IRv2 permits users to record as many risk controls and corrective actions as are necessary to effectively mitigate risk. All RC/CAs (in blue text) and associated details are again mirrored here for monitoring and follow-up.

Vendors and sub-contractors may also be assigned risk controls or corrective actions, as is necessary when a vendor audit produces unsatisfactory results. Provisions are made in IRv2 for recording the vendor's company name and Point-of-Contact, who is often the appropriate person to monitor a risk control that has been assigned to that vendor.



Follow-up audits are performed by the Director of Safety or trained company auditors to ensure that each risk control or corrective action conforms to specified standards, and is effective. Audit results and notes are recorded here. Audit Finding Reports (AFRs) may also be referenced and attached to an individual record on the Images Tab.

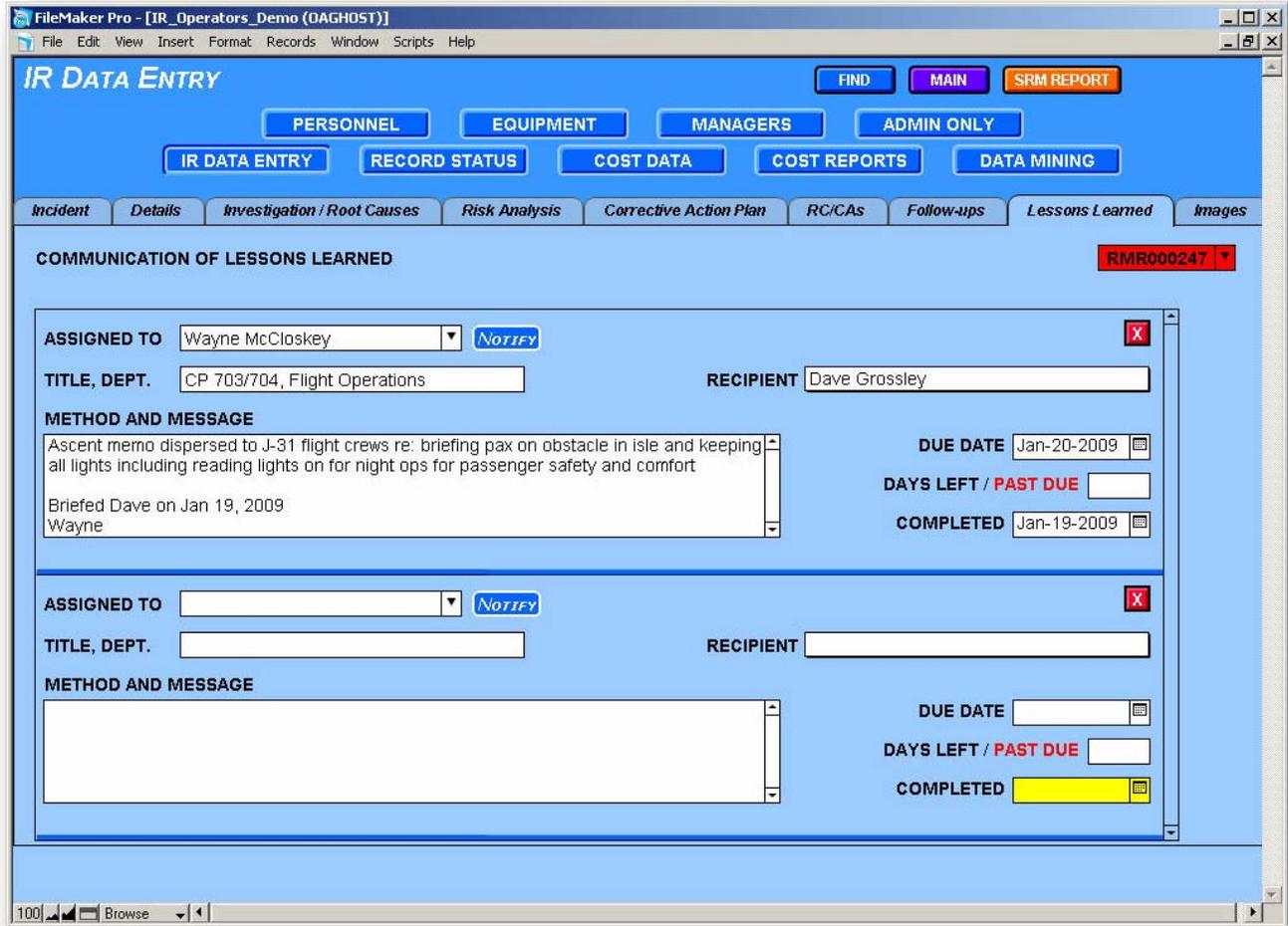
Note:

IRv2 contains built-in controls that prohibit closing of a record unless all tasks have been completed and all follow-up audit results have been recorded as satisfactory.

I. LESSONS LEARNED TAB

On this tab, responsibilities for communication of lessons learned are assigned, including communication methods, recipients and due dates.

Communication of lessons learned may be part of a Corrective Action Plan to control risk, or to share lessons learned with personnel or industry. Through this sharing of information, your company's risk management efforts may help others in their development of effective risk controls, and in preventing an accident.



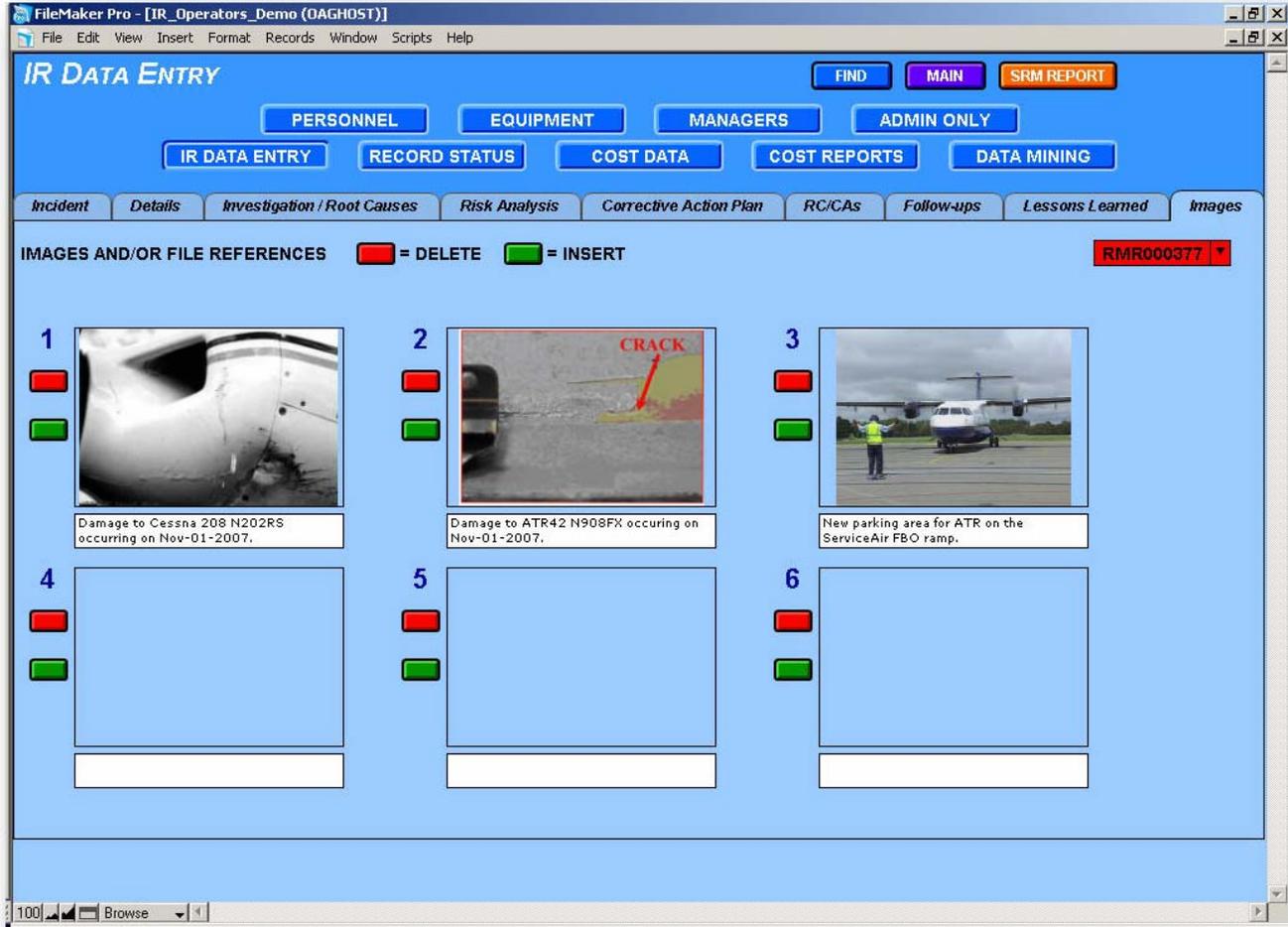
Submission of injury reports to OHS/OSHA, completion of voluntary disclosures to regulators and submission of comprehensive fixes, reports of suspected unapproved parts, and operational difficulty or mechanical reliability / interruption summary reports are but a few examples of communications that may be assigned and tracked in the IR database.

Operators may also choose to share lessons learned with industry trade associations or other operators of like equipment, to enhance safety not only within the company, but throughout the industry.

Communication of lessons learned also serves to promote the company's Safety Management System by demonstrating to all personnel that the system is working and producing positive results.

J. IMAGES TAB

Up to six images and/or file references may be added or linked to each record.



Examples of reference files that may be attached include:

- ➔ Original source documents such as reporting forms;
- ➔ OHS / OSHA reports;
- ➔ Audit Finding Reports;
- ➔ NASA ASRS reporting forms;
- ➔ Voluntary Disclosures;
- ➔ Mechanical Reliability / Mechanical Interruption Summary reports
- ➔ Flight Data Monitoring / Flight Operations Quality Assurance reports
- ➔ Continuing Analysis and Surveillance reports
- ➔ Cost estimates or bids;
- ➔ Invoices for work performed;
- ➔ Insurance claim forms.

7. REPORTS

A. SRM PROCESS REPORT

The Safety Risk Management Process Report captures the status of a record at any time during the life of the record, through all applied SRM processes, and produces a report in .pdf format which may be printed and taken to meetings, used for internal audit purposes, or emailed as an attachment. All information pertaining to the associated record is captured by the report. The SRM Report automatically updates as information is added to the record.

Record Number: RMR000368	
SRM PROCESS REPORT	
EVENT	
Date of Event: Oct-01-2009, 7::30 UTC	Record Opened: Oct-03-2009
Type: Flight Interruption	Reporting Source: Employee
Class: Quality	
Airport: BFI	Reported Via: ERS - Online Report
Location: Taxiway	Acknowledgement Sent to Originator: Oct-03-2009
Mission: Charter	PIC: Turcanik, Clint
Flight Rules: IFR	SIC: Wright, James
Flight Phase: Cruise	
Flight #: 6335 PAX: 32	F/A: Yip, Karen
Weather: Icing Conditions Visibility: 1 Mile	ACM: N/A
OPERATIONAL PROCESS: Maintenance QC	
EQUIPMENT INVOLVED	
Tail # — Registration # — Equipment Type — Manufacturer — Model # — Serial # — ATA Code	
23 — N908FX — Aircraft — ATR — 42 — 02341007 — 3230 Landing Gear Retract/Ext. System	
EVENT OR HAZARD SUMMARY	
Unsafe gear indication resulted in air tumback.	
DETAILED DESCRIPTION OF EVENT / HAZARD	
Departed R33 YKM taking N908FX to GEG. Upon retracting the gear, the gear unsafe light illuminated. Tried recycling the gear - same problem and returned to YKM for maintenance to check. Landed without occurrence. Contacted dispatch and was released to take N368FX to GEG.	
WAS IMMEDIATE ACTION TAKEN TO MITIGATE RISK? Yes	
IMMEDIATE ACTION(S) TAKEN	
Recycled gear, returned for landing.	
IS FURTHER ACTION REQUIRED TO MITIGATE RISK?	
INVESTIGATOR(S) (TITLE / CO.)	
Brent Fenster, (Maint Planning, Maintenance)	
RECORD IS STILL OPEN	
Printed: 11-Oct-2009	RMR000368
	Page 1 of 1

B. SAFETY RISK PROFILE REPORT

The Safety Risk Profile Report may be accessed from any record in the IR database, and produces a report in .pdf format which may be printed and taken to meetings, or emailed as an attachment. This report lists the ten or twelve highest-risk activities in which the company engages, and includes responsibilities for risk controls to mitigate risk.

SAFETY RISK PROFILE

(Significant Safety Issue List)

Record Number: **RMR000222**

Priority: 2

ACTIVITY: In-flight mechanical failure

RISK ASSESSMENT: Calculated Risk: Likelihood = Unlikely / Severity = Critical / Exposure = Often—Relative Calculated Risk: 39 (Moderate)

RISK CONTROLS:

Monitoring of maintenance related Cadors [Priority Level: 3]
Assigned to: Brent Fenster Due: Completed:
Details: Maint. Planning will monitor and distribute applicable CADORS info.
Monitoring Assigned to: Brent Fenster Title, Dept. or Vendor: Maint Planning, Maintenance
Monitoring Description: CADORS to be reviewed weekly and pertinent info. disseminated to all concerned maint. personnel

Reliability analysis program adherence by QA [Priority Level: 3]
Assigned to: Jared Poser Due: Completed:
Details: QA will follow weekly requirement for reliability analysis
Monitoring Assigned to: Title, Dept. or Vendor:
Monitoring Description:

Training program review and implemented in next budget year
Duties and responsibilities of floor supervisors clarified and implemented - training and oversight [Priority Level: 2]
Assigned to: Dennis Golf Due: Completed:
Details: TBD
Monitoring Assigned to: Title, Dept. or Vendor:
Monitoring Description:

Maint management - responsibilities and reporting structure changed [Priority Level: 3]
Assigned to: Jared Poser Due: Completed:
Details: Under development
Monitoring Assigned to: Title, Dept. or Vendor:
Monitoring Description:

OBJECTIVE: reduce in flight mechanical problems/failures
GOAL: improve aircraft and component reliability
MEASUREMENT: fewer pilot reports per 100 hrs

Printed: Oct-11-2009

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C. CLL REPORT

The Communication of Lessons Learned Report may be accessed from any record in the IR database, and produces a printable report using select data from the record being viewed. This includes the event summary and details, investigation notes, root causes, and risk controls to prevent reoccurrence. The CLL Report may be printed and posted, attached to an email, or embedded in a company memo.

Record Number: RMR000020

COMMUNICATION OF LESSONS LEARNED

EVENT

Date of Event: Jun-26-2008, 19:22 LCL
Type: Accident (near)
Class: Safety

OPERATIONAL PROCESS: Ground Handling

EVENT OR HAZARD SUMMARY

Near collision between Purolator van and ATR.

DETAILED DESCRIPTION OF EVENT / HAZARD

N3422Y was departing when a unmarked UPS cub van cut in front of him causing him to slam on his brakes. The van also tried to stop but realized that if he did he would definitely be hit by the ATR. He then continued past.

IMMEDIATE ACTION(S) TAKEN

I drove over to Purolator and stopped the driver making sure he realized how close he was to causing a very major accident. I explained that if the beacon lights are on and both props are moving the a/c has the right of way.

INVESTIGATION NOTES

Discussed this with David Helander. Walked out to the ramp to get a better picture of layout. ATR's were parked with their noses facing North. ATR involved was furthest to the east with at least one on it's left side. Engine start completed and "thumbs up " given by ramp staff who then moved to area behind aircraft as there is not room to safely marshall the aircraft forward.

Pilots view to the west likely blocked by the other aircraft and a clear view not available until moving forward. Likewise the view of the van driver would be of the other aircraft not yet running.

Ramp congestion in the morning is compounded by the roadway at the north end of the ramp.

ROOT CAUSE(S)

Ramp congestion on the north ramp compounded by the roadway which must be left clear for access vehicles. Requests have been made to have courier traffic access Purolator via ground side vs. air side. Airport Authority to establish access has not been completed.

INDIVIDUAL RISK CONTROLS / CORRECTIVE ACTIONS (RC/CAs)

Wayne McCloskey to implement ramp marshalling procedures with his staff to monitor the vehicle corridor prior to aircraft movement. [Priority Level: 1]

Details: Make sure staff are aware of new procedures to ensure road traffic is clear prior to aircraft departures

Lloyd Epstein to advise Airport Authority and ask about gate access for couriers. [Priority Level: 2]

Printed: Nov-12-2009

RMR000020

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8. TREND ANALYSIS AND COST REPORTS

Clicking on **Data Mining** from the main screen takes users to the Data Mining screen:

The screenshot shows the 'DATA MINING' interface with the following sections and fields:

- Navigation:** ALL CLOSED, ALL OPEN, SHOW ALL, FIND, CONSTRAIN; PERSONNEL, EQUIPMENT, MANAGERS, ADMIN ONLY; IR DATA ENTRY, RECORD STATUS, COST DATA, COST REPORTS, DATA MINING.
- EVENT DATA:** TYPE OF EVENT (safety - workplace / facilities), DATE OF EVENT (Sep-26-2008), TIME (12H) (8:30), RECORD # (RMR000163), DATE RMR OPENED (Sep-26-2008), DATE RMR CLOSED (Jan-23-2009), REPORTING SOURCE (AME apprentice), REPORTED VIA (Online Report), ACKNOWLEDGMENT (Yes), ACK SENT DATE (Sep-26-2008), MISSION, FLIGHT #, PAX #, FLIGHT RULES, AIRPORT, LOCATION, WEATHER, VISIBILITY, EVENT SUMMARY (Northeast Fire extinguisher in), EVENT DESCRIPTION, IMMEDIATE ACTION, ACTION TAKEN (Ramp was informed), OPERATIONAL PROCESS.
- RISK ANALYSIS:** RISK STATEMENTS (Lack of access could impact timely), EXPOSURE (Hardly Ever), LIKELIHOOD (Unlikely), SEVERITY (Minor), RA CALC (Relative Calculated Risk: 9 (Low)), RISK PRIORITY, ACTIVITY, OBJECTIVE, GOAL, MEASUREMENT, CAP TEXT (Ramp staff responsible to assist in), PRSN RESPONSIBLE (David Whiten), TITLE, DEPT., DUE DATE (Dec-09-2008), DEVELOPED (Dec-02-2008), SUBSTITUTE RISK (none), EXPOSURE (Often), LIKELIHOOD (Unlikely), SEVERITY (Major), RR CALC (Relative Calculated Risk of 28 (Low)), CAP ACCEPT NAME (Greg Knowlton), CAP ACCEPT TITLE, CAP ACCEPT DATE (Dec-02-2008).
- RISK CONTROLS / ACTIONS:** RC/CA PRIORITY, RC/CA DETAILS (David, please issue a memo or speak), ASSIGNED TO (David Whiten), TITLE, DEPT., DUE DATE (Dec-09-2008), COMPLETED ON (Dec-16-2008).
- EQUIPMENT INVOLVED:** REGISTRATION #, TAIL #, MANUFACTURER, EQUIPMENT TYPE.
- CORRECTIVE ACTION PLAN:** (Empty fields for activity, objective, goal, measurement).
- FOLLOW-UP AUDITS:** MONITORING ASSIGNED TO (David Whiten), TITLE, DEPT., MONITORING DESCRIPTION, FOLLOW-UP AUDIT BY (David Whiten), TITLE, DEPT., AUDIT DESCRIPTION (Ramp staff have been informed of), AUDIT DUE DATE (Dec-25-2008), AUDIT PERFORMED ON (Dec-16-2008), AUDIT SATISFACTORY (Yes), FOLLOW-UP AUDIT NOTES.
- LESSONS LEARNED:** ASSIGNED TO (Jim Whales), TITLE, DEPT., RECIPIENT (Chris Goldfinger), METHOD / MESSAGE (Jim, please review this RMR with), DUE DATE (Dec-28-2008), COMPLETED DATE (Jan-20-2009).

A. TREND ANALYSIS

One of the most powerful features of Incident Reporter v2 is the program's ability to identify trends by any parameter, such as:

- ➔ Airport / Location
- ➔ Equipment type / Manufacturer / Model number / Tail number
- ➔ Aircraft System / ATA code
- ➔ Type of event / Class of event
- ➔ Mission / Operational Process
- ➔ Department / Vendor

Search for a manager's name, title, or department to identify records in the database that pertain to a specific manager, title, or department. These finds are used during Safety Assurance processes of internal audits and evaluations, to identify all risk controls that pertain to a specific department.

B. GRAPHS , PIE AND BAR CHARTS

Use IR's powerful find commands (including multiple constrained finds) in the Data Mining screen, or in any field throughout the program, to drill down and find exactly the data you're looking for. Then export selected fields to Excel for creation of pie / bar charts and other graphical representations of data.

C. STATISTICAL CONTROL CHARTS

After finding specific data within IR over various time frames, selected fields may be exported to Excel. Using an inexpensive add-on program such as [SPC for Excel Software](#), a variety of statistical tools can be utilized for data analysis, including:

- ➔ Pareto diagrams
- ➔ Histograms
- ➔ Attribute Control Charts
- ➔ Variable Control Charts

...and many more. Visit **BPI Consulting, LLC** online for more information and training regarding the use of Statistical Control Charts.

D. COST REPORTS

Clicking on *Cost Reports* takes users to the Cost Reports Switchboard. Here, Cost Reports may be sorted by cost type or record number within a specific date range.

The screenshot shows the 'Incident Reporter v2.0' application window. The main area is titled 'COST REPORTS SWITCHBOARD' and contains several navigation buttons: 'IR DATA ENTRY', 'SUMMARY REPORTS', 'COST DATA ENTRY', 'COST REPORTS', and 'VALUE LISTS'. A central panel allows filtering by 'COST REPORT BY...' with options for 'ALL' and 'ONE'. Below this are dropdown menus for 'COST CATEGORY', 'COST TYPE', 'DATE RANGE', and 'RECORD NUMBER'. There are 'ABORT' and 'GO' buttons. A printed report is overlaid on the bottom right, titled 'COSTS BY COST TYPE', showing a table of cost data for 'Aircraft Repair Outsourcing (2)'. The report includes columns for 'COST DATE', 'RECORD #', 'COST AMOUNT', and 'NOTES'. The data shows two records: one for Sep-17-2009 (RMR000001) with a cost of 350.00, and another for Aug-04-2009 (RMR000003) with a cost of 320.00, totaling \$670.00. A 'GRAND TOTAL' is also shown as \$670.00. The report is dated 'Printed Oct-11-2009' and is 'Page 1 of 1'.

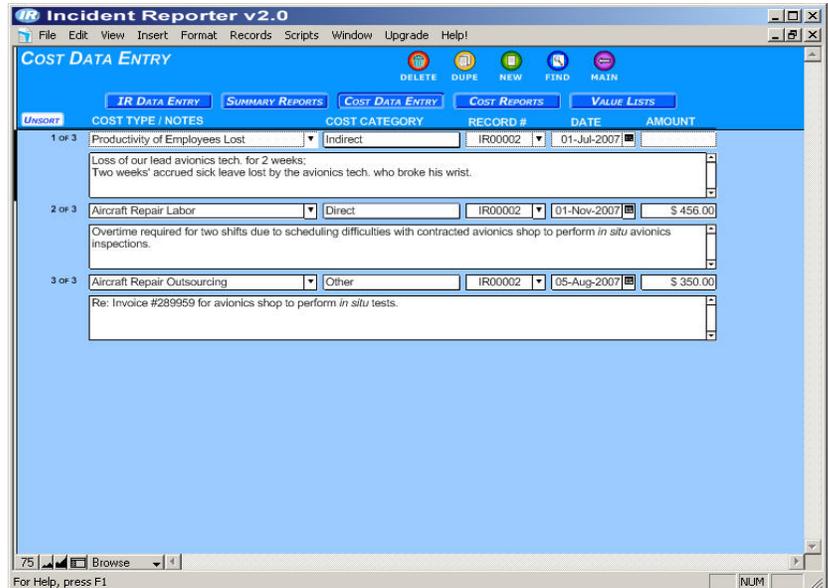
COST DATE	RECORD #	COST AMOUNT	NOTES
Aircraft Repair Outsourcing (2)			
Sep-17-2009	RMR000001	350.00	Re: Invoice #28959 for avionics shop to perform <i>in situ</i> tests.
Aug-04-2009	RMR000003	320.00	Re: Invoice #AR007314 from AMS for C-208 wing repair
		\$ 670.00	
GRAND TOTAL		\$ 670.00	

E. COST DATA ENTRY

Costs associated with a safety-related event are entered in the Cost Data Entry screen. Management may assign user access to one or more persons in accounting, in order to enter cost data associated with incidents or other events.

Cost types are tailored to each company's accounting system with the same user-customized value lists provided for IR Data entry (see value lists below).

Costs may be categorized further as *direct* or *indirect*. indirect costs are non-quantifiable, and may be related to the company in general, a specific department, station or an individual employee. Management may want to record such information to get a better picture of the true impact of an incident or other irregularity. Examples of indirect costs might include the loss of a customer due to a failure to meet minimum performance standards, or lost productivity or wages by personnel.



9. ADDITIONAL RESOURCES

The following white papers and resources contain additional information regarding Incident Reporter:

- ➔ OAG Quality SMS
- ➔ Online Reporting with IR
- ➔ Incident Reporter Demonstration Video

Contact Susan Tolle at 1+206.949.1470 for copies of these white papers, or visit Omni Air Group online at www.omniairgroup.com

10. FREQUENTLY ASKED QUESTIONS

“Why should I choose Incident Reporter as my SMS risk management software?”

Because Incident Reporter:

- Is powerful, fast, and easy to learn;
- Can be accessed via web browser from anywhere in the world;
- Requires no IT resources and can be set up in less than a week;
- Serves as an Employee Reporting System and risk / quality management database;
- Has built-in controls to ensure the completion and recording of all risk management activities;
- Contains **reference tutorials** to ensure consistent quality of risk management processes;
- Has powerful data mining and export functions for trend analysis and pie / bar charts and graphs;
- Allows you to attach documents and images to records, and track costs;
- Constantly saves your data so even if your system shuts down, your records are safe and intact;

“Is there a trial version of IRv2 available?”

Yes! A free 30-day trial version of IR is available, hosted on OAG’s secure servers. The trial version is fully functional with online reporting and email notifications, so you can see how IR can streamline your reporting, communication and responsibility assignment processes.

“How much does Incident Reporter™ cost?”

Incident Reporter is offered as part of the OAG Quality SMS for only \$500.00 per month. Call Susan Tolle at 1+206.949.1470 for more information regarding Incident Reporter.

“How is the support;...what else is included?”

- IRv2 connects to a full-color online User Manual (also available for download from omniairgroup.com);
- Lifetime support and upgrades are included at no additional cost;
- Online training (included) teaches your people fast and effective use of the program;
- Continued telephone and email support is offered for the life of all IR products.

Omni Air Group also offers professionally developed SMS Manuals and online SMS training for personnel and managers. Call us to find out how we can help you ensure the success of your SMS.

“What about tech support?”

We’re responsive. If you send an e-mail you’ll receive a response back within a day; call and you’ll either receive an answer on the spot or if an answer isn’t readily available, we’ll get one to you as soon as possible (usually within one business day). We’re available by phone from 8:00 am to 4:30 pm pacific time, here on the west coast of the United States.

“What’s your contact info?”

Susan Tolle, Director Sales and Marketing Tel. 1+206.949.1470 Susan.Tolle@omniairgroup.com

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