Risk management is usually the responsibility of risk managers/professionals in separate business units working with differing risk management systems. This contributes to multiple risk mitigation strategies resulting in a lack of risk information sharing and a lack of understanding of the key risks facing the organisation. Although business units may function in isolation, risks certainly don’t. Without an integrated approach to risk management, an organisation will never achieve optimum results.

Companies are looking for a risk management system that creates a transparent environment which lets you manage the process across the entire organisation - from identifying risk, to measuring, mitigating and monitoring it on an on-going basis. By centralising information, that often sits in separate systems, into one integrated risk management program, management and employees have access to real-time consolidated data. This empowers employees to successfully manage their areas of responsibility, enforcing compliance and driving sustainability.

NOSA has identified this increasing demand and the role software solutions can play in assisting companies to manage their Occupational Health, Safety, and Environmental exposures. Using our many years of experience in the industry, NOSA has leveraged technology to create a ground-breaking software and information technology solution that helps plan for and manage those risks more proficiently and effectively.

MIRACLES - Multiple Integrated Risk Assessment and Control Level Evaluation System - is a comprehensive and real-time risk management software system for the prevention of incidents and accidents within the work environment. The system proactively alerts key users on essential risk management activities and accurately predicts workplace incidents before they occur. MIRACLES thereby empowers risk professionals to pro-actively plan, implement and manage occupational safety, health, quality and environmental risks.

MIRACLES software can be applied in a vast array of organisations from small businesses to large mining groups. The system has a proven track record in both developing and developed markets with various successful implementations, both locally and internationally. It is compatible with industry standards such as ISO 9001, ISO 14001 and OHSAS 18001 as well as company ERP, HR, Financial, CRM and other software applications. MIRACLES helps companies monitor the value and significance of being hands-on and innovative in their approach to risk management.

MIRACLES allows management to develop a systematic approach to meeting legal obligations and to ensure employees are provided with a safe and healthy working environment. Overall, MIRACLES is the full package: a leading edge product with the critical expertise to drive your business’ success.

Key MIRACLES Benefits:

• Captures all relevant SHEQSL data in one risk management tool - Simplifies risk management, incident reporting and industry standard compliance into one, flexible and configurable solution.
• Listing of a 7 Level Organisational Hierarchy with various end user security levels - Ensures an enterprise wide risk management solution.
• Data consolidation on all organisational levels.
• Computer generated notifications for critical risk management activities.
• Customised audit protocols.
• Ability to generate numerous reports
• Improve business performance by managing risk effectively - Reduces incidents and therefore increases productivity.
• Promotes a risk management culture.
• Simple integration with other management systems.
• Preserves a clear audit trail.
• Standardize employee data management across multiple sites.
• The control of all documentation and records in one software solution.
BUSINESS INTELLIGENCE (BI) INTEGRATION

Company data is usually stored in a database or located on a server without ever adding any value to the organisation. Business intelligence (BI) is the ability for an organisation to collect, maintain and organise information and then interrogate that data with the simplest drag and drop techniques. This gives organisations the ability to discover new opportunities, in real-time, and make innovative, cost-effective, and life-saving decisions. NOSA’s collaboration with one of the most powerful BI platforms in the world, Qlikview, has turned the MIRACLES program into an interactive, analytical application giving users the capability to interact with data without limitations and develop insight in ways they have never imagined. All the data collected in the MIRACLES program is now consolidated into a single SHEQLS solution enabling better decision-making through interactive, web-based reports, dashboards, and analysis. It gives users access to the data they want to examine in a clean, intuitive interface. Users can make changes to their selections with only a few clicks.

Benefits of the MIRACLES – Qlikview Integration:

- Integrated, comprehensive data management.
- Powerful predictive analytics.
- User-friendly, simple, self-service reporting - Analyse and report of virtually any data tracked in the MIRACLES program.
- The ability to uncover hidden trends and make discoveries that reduce risk and save lives.
- Instant, associative results that let you see new connections and relationships across all data.
- Tailor analytical functionality to meet your organisation’s needs.
- Integrates operational and analytical functions so that information drives actions.

MIRACLES MODULES

MIRACLES software has a number of core modules that synergise to provide a transparent and holistic approach to risk management. They can be used as an integrated, enterprise-wide risk management system or individually, as standalone modules:

- Integrated Audit Wizard
- Risk Profile
- Personnel Compliance Planner
- Incident Register
- Job Card

Compatible with various industry standards, including ISO 9001, ISO 14001, OHSAS 18001, SA 8000, all NOSA system standards & HACCP, which guarantees maximum compliance. Users are able to build custom audit protocols, to suit their company specific operations. Incidents can be linked to audit protocol standards/elements giving management the capability to determine root causes.

Covers seven disciplines: Safety, Health, Environment, Quality, Liability, Security and HACCP. Sets of hazards, risks and consequences are pre-loaded on the program ensuring comprehensive and precise risk assessments. Risk disciplines are automatically populated, guaranteeing accurate risk ratings. Risk control templates can be set up and linked to risk assessments so that controls are put in place for all identified risks, minimising the chance of incidents. The system provides functionality for risk activities to be revised; frequencies are set up as per user’s requirements and notifications are sent out as reminders.

Personalised electronic employee files are created and linked to all training certificates and documentation. The training needs analysis is designed to work off job type and appointment requirements, assisting management to ensure all employees are fully trained to fulfil their duties. Notifications are sent to a pre-set list of stakeholders as a reminder of permits, licences, medicals, updates on courses, inductions, etc. that are up for renewal.

User-friendly capturing of incident data from start to finish, of an investigation. Multiple incident investigation techniques are pre-loaded on the system ensuring root causes are determined, and incidents can be linked to risk assessment control measures so the primary control failure is identified. All preventative and corrective actions are captured as well as comprehensive tracking of those actions. Numerous reports are generated at a click of a button, for example:

- Age Group Analysis
- Root Cause Analysis
- LTIFR over Man Hours
- Recordable Case Rate (RCR)

The Job Card Module can be used to Plan Scheduled as well as unscheduled maintenance for the organisation. Job Cards can be allocated to specific Trades and Tradesmen in the organisation. Planned, completed and open Job Cards can be tracked to evaluate compliance and progress. Job Cards can be printed to be used as Hard Copies.
MIRACLES’ Content Management system is made up of 3 sub-modules aimed to aid an organization with the management of Governance Documentation, Records and a Legal Register. The Document Management tool makes provision for the development, approval and storing of governance documentation in order to comply with international standards in Health and Safety, Environmental and Quality Management. The module ensures that the latest approved documents are made available at the point of use for access by the relevant personnel.

Records generated in the day to day activities of an organization’s management systems are securely housed in the Record Management tool to ensure those important pieces of evidence are retrievable when required. The Legal Register provides a platform for an organization to maintain and house all relevant legalisation (national, provincial and local government) pertinent to their operations.

Different maintenance types can be set for the various types of equipment at different frequencies, ensuring that all equipment is in good working order at all times. If an asset is removed from circulation, corrective actions can be linked to that specific asset and the actions tracked. All maintenance costs are captured and records are kept for asset, guaranteeing the correct rotation or replacement of equipment. Pieces of equipment can be linked to incident investigations, helping to identify high risk activities and trends.

The MIRACLES solution operates through your company email system, sending out reminders to complete designated tasks within a specific timeframe. Tasks are assigned to employees, contractors, and project members or any relevant stakeholder who receive emails alerting them of their duties. Tasks are setup to accommodate most time spans or recurring patterns and to keep track of ad-hoc management tasks.

Reports and graphs are generated from all the data captured in the system. Various parameters and settings allow for customised reports to be generated according to company requirements. Industry related reporting and formats allow for accurate, informative risk management decisions.

- **MANAGEMENT REPORTS**

Reports can be customised according to management/organisational requirements. Filters are used to generate reports with selected data, e.g. Hierarchy Levels, Frequency Rates, Dates, etc. Management is able to view statistics that have been consolidated for either the entire organisation or specific sites. Comparisons can be made between various sites, departments or areas and trends identified.

- **GAUGE DASHBOARD**

Gauge dashboard functionality is provided to identify overdue tasks. All modules are included on the dashboard allowing you to monitor compliance throughout your risk management system.

- **TREND ANALYSIS**

Trends can be identified throughout your risk management system and hazardous activities can be minimised

Custom templates can be built to observe employee behaviour at work, thus identifying all unsafe actions. The identified risk behaviours can be linked to causes, preventing re-occurrence. Comprehensive reports can be generated for specific employees, areas or sites allowing management to focus on what employees do, why they do it and then apply an intervention strategy to eliminate ‘at-risk’ behaviour.

Data is captured from incidents, and findings (Lessons) are made and recorded in order to prevent re-occurrence. Automatic notifications are sent via email to all stakeholders ensuring the distribution of knowledge. The ‘lesson’ distributed includes information about the Area in which the incident occurred, Cause of the incident, Description of the Incident, Corrective/Remedial actions taken after investigation & all documents linked to the incident.

A program of data collection, communication and responses is set up to ensure that sustainability performance is monitored on an on-going basis. Data regarding paper, water and power usage, waste management, emissions and other information related to environmental sustainability is captured. Reports can be generated that reflect a site’s impact on the surrounding environment (Carbon Footprint) and are provided regularly to senior decision makers to shape company strategy and policy, and improve performance.

The sophisticated MIRACLES ‘help file’ guides users through each module, providing an overview of the entire system. The search engine helps users find information relating to their specific problem and informative answers are given to the most frequently asked questions. Help videos are pre-loaded on the program to assist users with navigation. They provide valuable assistance during training, navigating new users through the program step by step.
**MIRACLES IMPLEMENTATION**

Implementation is structured around three major phases, Installation, Training and Consultation. NOSA has all the resources required to implement the software successfully, ensuring a complete system fit. Every MIRACLES roll out is unique, depending on the size and structure of the organisation and the number of end users. A customised roll out plan is developed specifically for each project, taking into account all client specific factors.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
<th>Time Frame</th>
</tr>
</thead>
</table>
| **MIRACLES** Installation | The complete MIRACLES installation and system setup:  
  • Configuration of the client server to enable successful access to the MIRACLES application.  
  • Setup all users and import data made available by the client. | Dependant on project roll-out scope & selected IT architecture                                |
| **MIRACLES** Training | Selected employees are chosen to attend the MIRACLES course and given an in-depth understanding of the software system. They are then equipped to manage the MIRACLES solution and assist with training of users.  
  Workshops are then conducted by NOSA trainers for all users on any of the MIRACLES modules:  
  • Integrated Audit Wizard  
  • Risk Profile  
  • Personal Compliance Planner  
  • Equipment Inspection Register  
  • Job Card  
  • Content Management  
  • Task Scheduler  
  • Reporting Tool  
  • Behaviour Based Safety  
  • Lessons Learned  
  • Sustainability Module  
  • Data adaptor | 5 Day Course  
  3 Day Workshops |
| Consultation   | NOSA consultants spend time on site to ensure the system is working and being used effectively. | 1 Day site visits |

Our support centre is staffed by fully trained professionals at the NOSA head office that focus on providing timely and professional IT support. This means that your contact within the support centre can effectively respond to your system questions and quickly access the resources needed for the rapid resolution of any issues. All support and generic software development is included in your monthly software fee, thus any support commissioned through the NOSA Technologies support centre is free of charge.

**DATA ADAPTOR**

The MIRACLES data adaptor ensures that the system integrates with company ERP, HR, Financial, CRM and other software applications ensuring up to date employee records. This integration means that all employee records can be managed in the organisations internal systems and will be automatically updated in MIRACLES. All overdue actions will be reflected in the gauge dashboard and emails will be sent out as notifications before certificates or permits, etc. expire.

---

0861 11 NOSA (6672)  info@nosa.co.za  www.nosa.co.za  Miracles V1.0
MIRACLES TRAINING

We believe in the full and complete empowerment of all our clients and their staff and understand the importance of getting your people up and running as soon as possible. As a result, our training package gives you double the knowhow. The MIRACLES training course is divided into two sections, a methodology section followed by a practical component. This ensures each participant understands and grasps the MIRACLES theory and enables them to work with the program easily and effectively.

MIRACLES Methodology

• General principles and theory of risk assessment
• Occupational hazard identification and quantification
• Risk identification and SHE risk consequences
• The mechanics and technicalities of risk assessment
• The four dimensional risk assessment model
• Risk assessment process and practical

MIRACLES Practical

• Risk assessment
• Incident control
• Personal compliance planner
• Equipment inspection register
• Industry standard compliance
• Integrated audit wizard
• Reporting tool
• System setup & administration
• Job Card
• Content Management

Each student who successfully completes the MIRACLES course receives 3 CPD credits from the Engineering Council of South Africa. The course received a NQF level 5 rating.

MIRACLES CLOUD COMPUTING

MIRACLES can be accessed through cloud computing, allowing global accessibility on various devices. The MIRACLES software is hosted by NOSA or the client and made available to users via a network, or the internet. This saves time and money through effortless administration, safe and secure data management and automatic updates; and ensures compatible and consistent use of software, by all users. It also ensures global accessibility from the following internet enabled devices:

• Desktop Personal Computer
• Laptops
• Tablets

MIRACLES PRICING STRUCTURE

The adoption of web-based applications delivered through SaaS (Software as a Service) models is quickly being recognized as the most cost effective solution. MIRACLES, as a SaaS application, is sold on a subscription basis that includes upgrades, maintenance and client support. The subscription service eliminates large up-front costs and assists businesses to track operational expenses. The licensing agreements can be adapted to suit company requirements.