

# CASE STUDY: AMERICAN RADIATION SERVICES INTERNATIONAL

E-ISG AND VISUAL ASSET MANAGER AT  
WORK FOR LABORATORIES

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Services Group, LLC*

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## Client

American Radiation Services International (ARSI) assesses and regulates safety protocols for radioactive materials. ARSI provides their clients with the highest level of quality, expertise and service without compromising integrity and confidentiality.

Since 1993, ARSI has provided technicians, chemists, safety professionals and field personnel to the oil and gas industry as well as the federal government. ARSI boasts one of the most experienced and well-versed radiological testing teams in the country, employing over 50 team members based out of three offices in Louisiana, New Mexico and Tennessee. The staff, which is comprised of highly trained personnel who use the world's most advanced analytical instrumentation, provide quality data quickly and economically. Their safety officers and field personnel are technically skilled and knowledgeable of all regulatory issues.

Over the last few years, ARSI has responded to multiple requests from the federal government to meet an even wider range of needs. In the aftermath of Hurricane Katrina, ARSI diversified to provide decontamination and demolition services, as well as undertaking a facility management contract at one of FEMA's trailer cities, which provides temporary housing for thousands of people displaced by the storm.

Specifically, ARSI operates over three divisions: professional services, environmental services and laboratory services.

### *Professional Services*

ARSI routinely consults on matters of radiation safety, project management, radioactive material licensing and shipping, site decontamination and demolition, and laboratory analyses issues. ARSI also has broad experience in project management for both the federal government and private industries. They have provided project management for \$100-million FEMA contracts and multi-million dollar environmental clean-up projects, as well as smaller site demolition and decontamination projects.

Continuously, ARSI has extensive experience in characterizing properties and sites for radiological and hazardous material contaminants. ARSI provides environmental characterization and assessment services on multi-million dollar contracts with U.S. government and commercial companies. These contracts involve a full-range of characterization and assessment services including radiological and hazardous material characterization, MARSSIM based final status surveys, sampling and laboratory analysis of soil, ground water, and surface water, ES&H management and waste management.

### *Environmental Services*

ARSI maintains a full nuclear decontamination and decommissioning license. This license is a broad-scope license and allows for the remediation, decontamination, characterization, treatment and source

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E-ISG Asset Intelligence

removal of all types of radioactive material including special nuclear material and naturally occurring radioactive materials (NORM). ARSI is capable of performing radiation surveys for NORM and fission transuranic products on offshore oil and gas industry structures and platforms from the Arctic to the Gulf of Mexico. The surveys are often performed for worker protection—and completed before and after a work over—to ensure that no pre-existing NORM was present or left behind.

Moreover, ARSI has extensive knowledge in the development of licenses for the decontamination, decommissioning and remediation of sites and equipment contaminated with by-product and source materials. ARSI guides clients through the licensing process, providing expert interaction with regulatory officials regarding licensing issues. Additionally ARSI has written the majority of NORM Radioactive Licenses in Louisiana and has also written and maintained the only full-service D&D License in the state.

ARSI maintains emergency response teams and quick response equipment (including a mobile laboratory) that utilize GPS technology to address all radiological emergencies. ARSI has provided emergency response for radiation accidents involving large curie sources and contaminated personnel.

### *Laboratory Services*

ARSI has a full-service radiological laboratory staffed by licensed radio-chemists who are experts in monitoring and detecting radioactive materials. This team of professionals utilizes a sophisticated array of radiation detection equipment for accurate, full-scale analysis for determining radionuclides.

Many of ARSI's clients utilize hand-held radiation detection instruments that require periodic calibrations and repairs. Accordingly, ARSI offers a state-of-the-art instrument calibration facility and a team of professionals to ensure this work is done quickly and efficiently. Once entered into ARSI's database, the instrument is tracked and the client notified when it is approaching its calibration date.

### **Problem**

ARSI is a dynamic organization facing a demanding and complex asset management problem. Their first issue was an internal one. Due to dangerously high levels of radioactive materials, the majority of ARSI's laboratory facilities were inaccessible without a decontamination suit. Moreover, their physical resources such as calibrated testing tubes were far too delicate to be tracked with traditional barcode/RFID technology. ARSI approached E-ISG with the goal of using the Visual Asset Manager Software platform, along with RFID technology in an unconventional manner.

Next, ARSI demanded a data import/export system to maintain its ever-increasing number of federal and private licenses. In addition to maintaining licenses for their own operations, ARSI also provides license development services to other organizations looking to gain accreditation. As such, this aspect of their asset management process was among the most vital in their business model. Accordingly, ARSI demanded a centralized database through which licensure information could be stored and accessed quickly.

Finally, because ARSI maintains emergency response teams and quick response equipment (including a mobile laboratory) that utilizes GPS technology to address all radiological emergencies, their

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organization needed a software platform that could help track vital information about their fleet of vehicles and first-responder equipment.

## Solution

Due to both the highly delicate nature of the laboratory equipment and the instances of highly unstable levels of radiation, ARSI was unable to tag assets like “normal” clients could. ARSI’s highly specialized equipment could not be barcoded directly, forcing E-ISG to devise an ingenious solution. After a series of consultations E-ISG recommended that ARSI maintain a binder complete with each asset’s barcode. E-ISG placed all the barcodes in a binder, allowing lab-technicians to conduct visual inventories. These visual reviews would be cross-checked with barcodes located in the binder to ensure accuracy. ARSI was now able to update and maintain their database with information such as quantity, repair and retirement for their most delicate resources.

Continuously, ARSI utilized certain assets located within other assets. For example, ARSI utilized a tool for testing radiation levels in soil that featured a plastic canister inside of a steel drum. While the drums could remain in service for several years at a time, the far more delicate canisters needed to be replaced monthly. Thus ARSI was forced to track both the depreciable canister and the maintainable drum. The challenging aspect of this situation was that barcoding the canister would be ineffective due to the highly toxic materials it was exposed to. Using the binder system and classification sheet, ARSI was able to track specific drum and canister combinations. Moreover, Visual Asset Manager’s classification system allowed ARSI to link two assets (like the drum and the canister) to demonstrate relationship, with one barcode. Thus by placing a barcode on the drum, ARSI was simultaneously able to track the canister.

E-ISG customized Visual Asset Manager’s unique data import/export feature to address ARSI’s complex licensing issue. The user-friendly Data Import tool allowed ARSI to create a template to import desired license-data from a predefined library of fields. By maintaining mandatory fields, the importer ensured that all licensing information whether for ARSI’s internal or contracted operations were kept accurate.

Moreover, E-ISG instituted Visual Asset Manager’s unique, Property Pass Manager feature to create a physical and virtual paper trail used to not only track license information but also keep employees accountable for the assets assigned to them. Moreover, the “signature capture” feature allowed ARSI managers to digitally sign the property pass. The “signature capture” seals the property pass from further edits effectively creating a legal chain of custody used to transfer assets from various locations.

Of all the many dynamic features offered by the VAM software, E-ISG recognized that the automatic report generator was one of vital importance. For this reason, E-ISG implemented the automatic report generator into ARSI’s asset management plan.

Email Report

SUBGRANTEE NAME: \_\_\_\_\_ DATE: 1/31/2011

GRANT YEAR: \_\_\_\_\_

GRANT NUMBER: \_\_\_\_\_

GRANT PROGRAM: \_\_\_\_\_

PO Number	PO Line #	PO Line Status	Manufacturer	Vendor	Description of Equipment	Serial Number	Property ID Number	Quantity	Unit Cost	Federal Cost	Match Cost	Total Cost	Date Received	Doc
4300208913	1	C	Blauer	Safety League Inc	Training Suit for SWAT Stock Blue		BU4580	1	\$0.00	0	0	\$0.00	10/20/2010	Back
4300208913	1	C	Hain	Safety League Inc	Training Suit for SWAT Stock Blue		BU4581	1	\$0.00	0	0	\$0.00	10/20/2010	Back
4300208913	1	C	Hain	Safety League Inc	Training Suit for SWAT Stock Blue		BU4582	1	\$0.00	0	0	\$0.00	10/20/2010	Back
4300208913	1	C	Hain	Safety League Inc	Boots for SWAT Stock		BU4583	1	\$0.00	0	0	\$0.00	10/20/2010	Back
4300208913	1	C	Hain	Safety League Inc	Boots for SWAT Stock		BU4584	1	\$0.00	0	0	\$0.00	10/20/2010	Back
4300208913	1	C	Hain	Safety League Inc	Boots for SWAT Stock		BU4585	1	\$0.00	0	0	\$0.00	10/20/2010	Back
4300208913	1	C	Blauer	Safety League Inc	Multi Threat Suit for SWAT Stock		4742	1	\$0.00	0	0	\$0.00	10/20/2010	Back
4300208913	1	C	Blauer	Safety League Inc	Multi Threat Suit for SWAT Stock		4750	1	\$0.00	0	0	\$0.00	10/20/2010	Back

Figure 1 - DGMO8 Report Form used to track ARSI's license information

In addition to the property pass and report generator features, E-ISG included a "category-tree," a hierarchical list of both ARSI's assets and license information. This category list was intended to visually organize the ARSI's lab-equipment so that vital information could be viewed instantly.



Finally, E-ISG called upon its partnership with StreetEagle to deliver a comprehensive GPS tracking solution for ARSI's fleet of first-responder vehicles. This real-time vehicle tracking application placed ARSI in control of their fleet by providing them with detailed vehicle information such as: vehicle or



driver name, ignition status, fuel and oil levels, location and directional heading displayed on a interactive map. This detailed information helped ARSI improve their business operation and be readily prepared for a radioactive event by providing valuable insight on their vehicles: speed, travel time, idle time, mileage records, location and status.

## Results

E-ISG utilized Visual Asset Managers customization features to craft a fully customizable and comprehensively standardized asset management system for American Radiation Services International. Most importantly, the effectiveness of the system's standardization across both ARSI's internal and contractual commitments allowed the process to be replicated. This proven method demonstrated the effectiveness of the Visual Asset Manager software, and E-ISG has since replicated this process for a myriad of other organizations.

### *Asset Accountability*

The ability to view asset usage at the end-user level created a climate of accountability that was vitally lacking in ARSI's organizational culture. Visual Asset Manager encouraged a visual representation of the laboratory's asset pool, allowing the ARSI team to make informed decisions regarding the usage and deployment of their equipment.

ARSI capitalized on the increased asset accountability and produced a fully comprehensive and highly efficient fleet tracking system. Using the real time data generated by Visual Asset Manager, ARSI was able to interpret maintenance records and understand the physical limitations of their vehicles. This translated into the ability to deploy their vehicles and equipment quickly and confidently. Moreover, with greater insight into their fleet's history, ARSI was able to track each vehicle's total mileage and gas consumption.

### *Asset accountability drives cost savings*

Continuously, Visual Asset Manager's ability to centralize ARSI's license data resulted in an increased accountability and an overall reduction in spending. Using Visual Asset Manager's dynamic interface, ARSI was able to visually observe the status and condition of their assets. By keeping track of license, lease and maintenance records, ARSI was able to reduce inefficient spending on duplicated assets while also establishing a scheduled maintenance routine which encouraged stronger asset accountability.

Moreover, E-ISG recognized that the majority of ARSI's laboratory assets, like the drum-and-canister used to test radiation levels in the soil, were time-sensitive in nature. Accordingly, Visual Asset Manager demonstrated the time constraints of an asset's expiration date, helping ARSI to recognize which assets were being under-utilized and which were in higher demand. Logically this helped the ARSI streamline their spending habits, effectively maximizing their efficiency.



## About E-Innovative Services Group

E-Innovative Services Group (E-ISG) specializes in fixed and mobile asset management by addressing the unique challenges organizations face when attempting to reconcile their physical inventory. Through the use of cutting-edge technology and a dedicated customer support team, E-ISG has helped organizations revamp their asset management process by facilitating total asset visibility, encouraging the continuity of operations, increasing the quality of data collection and coordinating an ever increasing range of assets and employees.

E-ISG has seamlessly integrated data gathering, synchronization and correlation features into our low-cost asset management software, Visual Asset Manager (VAM), which is designed specifically for the Windows Mobile platform.

Visual Asset Manager simplifies asset management. VAM is an asset tracking software designed to control and manage mobile and fixed assets. This comprehensive software centrally manages what assets you have, where they are located, who uses them and all associated costs. A dynamic asset tracking solution, Visual Asset Manager has extensive barcoding and Radio Frequency Identification (RFID) technologies and functions built in.

With Visual Asset Manager you have complete control over how your entire organization uses company property, effectively saving time and improving bottom line expenditures. Thanks to Visual Asset Manager's instant audit and mobile work flow tools, centralized data is kept fresh and accurate at all times.

Be accountable for your assets and determine true cost of business with Visual Asset Manager