ARGON ELECTRONICS

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Argon Electronics

Argon Electronics delivers high-fidelity simulator-based training solutions for chemical, biological, radiological, nuclear, and explosive (CBRNe) and hazardous material (HazMat) response. Their technology enables realistic, hands-on training in both field and classroom settings—without the risks of live agents.

As organizations face growing demands for safety, compliance, and operational readiness, the ability to train effectively in high-risk scenarios becomes essential. Argon’s simulator systems bridge the gap between theory and practice, allowing personnel to build confidence and competence in controlled environments that closely mimic real-life situations.

From multi-agency field deployments to structured classroom sessions, these solutions support progressive skill development, scenario planning, and after-action evaluation. Forward-thinking teams are adopting this technology not only to enhance individual performance but also to improve coordination and decision-making under pressure.

Demonstrate your commitment to excellence from the very beginning and take your training to the next level with Argon Electronics!

TRAINING SIMULATORS

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RADSIM 44-9-SIM Radiation Safety Training Probe Simulator

The RADSIM 44-9-SIM is a cutting-edge simulation probe designed for use with Ludlum's 44-9 GM pancake-type detector.

This versatile training system offers a realistic alternative to traditional methods, eliminating the need for ionising radiation sources while delivering high-fidelity functionality for instructors and students alike.

Key Features

- Accurate Simulation: Replicates the functionality of Ludlum's 44-9 GM pancake-type detector, responding to safe magnetic sources simulating short-range Alpha and Beta radiation.
- Adaptable Training Design: Compatible with an extensive range of Ludlum survey meters, rate meters, and scalers. Includes an Instructor Remote Controller (IRC) for managing partial or full decontamination and probe functionality scenarios.
- Integrated Training Capabilities: Offers virtual Alpha, Beta, and Gamma simulation when used with Argon's Plume SIM system. Enables simultaneous, multi-detector, and multi-isotope training scenarios.

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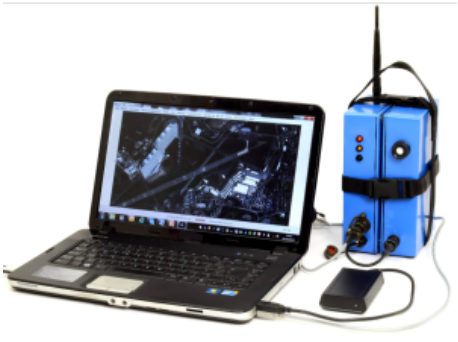
Radiation Detection › Training Simulators

PlumeSIM®



Plume SIM is the ultimate tool for preparing teams to respond to complex chemical, biological, radiological, and nuclear (CBRNe) threats. This innovative wide area training system creates realistic hazard plumes and hotspots, allowing instructors to manage a variety of threat scenarios in real time.

Ideal for counterterrorism and nuclear emergency exercises, Plume SIM adapts seamlessly from classroom tabletop mode to full scale field operations, enhancing team preparedness through powerful, scenario-based training.

Key Features

- Versatile Training Modes: Use Plume SIM in tabletop mode for classroom exercises or field mode for outdoor training with GPS enabled units.
- Customizable Scenarios: Create user defined scenarios with single or multiple threat sources, environmental factors, and release characteristics like duration, direction, and persistence.
- RealTime Monitoring & Mapping: Supports GIS mapping and real time adjustments to simulate wind changes and other environmental variables, making every session unique.
- Multiplatform Compatibility: Integrates with a range of Argon simulators, including the M4 JCADSIM, CAMSIM, AP2CSIM, and others, allowing simultaneous, multi threat exercises.

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PlumeSIM-SMART

Our App-based training system provides you with the capability to deliver practical, highly engaging Command Officer and survey operative tabletop and live field CBRNe / HazMat and offsite release exercises incorporating gaseous, radioactive, Hazardous Material (HazMat) and Chemical Warfare Agent (CWA) threats and releases.

PlumeSIM-SMART Simulates:

- Single or multiple threats / releases including Radioactivity, Radioactive compounds, TICs / TIMs and CWA
- Real-time chemical or radiation plume variation to changes in wind direction and velocity and evaporation, deposition, persistency, radioactive fallout and decay
- Hot spots, static emissions, hidden / activated radiological dispersion devices, puffs and plumes and placement of water barriers to restrict plume from sensitive areas
- Sources comprising Individual or multiple radionuclides and foot, fixed or vehicle based survey / monitoring / reconnaissance

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RS340 Back Pack

Based upon the Lawrence Livermore National Laboratory RaFTS Gamma Spectrometry simulation technology and developed in collaboration with Radiation Solutions Inc., the RaFTS-RS340 Gamma simulation module enables you to temporarily convert your operational RSI RS340 back pack into a powerful training system.

Substituting the RS340 detector, the RaFTS module responds to our GS Series simulation Gamma Sources which can be programmed to represent a variety of Industrial, Nuclear, Medical and even Specialist Nuclear Material (SNM) radionuclides and can be discretely hidden within buildings, open field, vehicles and even body worn rucksacks for specialist search and threat identification exercises.

For larger area exercises multiple GS series sources can be deployed or PlumeSIM provides the perfect solution.

Multi-Device Compatibility

The RS340 back pack responds in exactly the same way as it would for real radionuclides with count rate a spectra faithfully reproduced in real time with all standard user alarms and visual alerts including spectra displays presented on you Bluetooth linked RS340 mobile App.

Compatibility with all Argon Electronics survey, Personal Radiation Detector (PRD) and personal dosimeter simulators provides you with a powerful multi detector search team exercise capability so that you can ensure your teams maintain optimal operational readiness.

UDR-13 & UDR-14 SIM

Thanks to a combination of Argon’s wealth of simulation experience and our relationship with Mirion, the look, feel and response of the UDR-13 and UDR-14 radiation training simulators is extremely close to that of actual detectors.

The simulators respond to RADSIM electromagnetic sources that safely simulate ionizing radiation eliminating regulatory, environmental, and health and safety concerns for you and your students.

Key Features

- Simulated Science: Inverse square law (1/r2) response within real detector tolerance and accurate representation of different shielding effects.
- Unmatched Realism: Has the same human interface and dose rate alarm settings as the real detector.
- Comprehensive Training: Optional units of measurement available include Gy/hr, Sv/hr, Rem, and CPM.
- Cost Effective: Uses the same commercial batteries as real detector and doesn’t require regular calibration or maintenance.

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Radiation Detection › Training Simulators

Radsim DS3 Mini 900

The Radsim DS3 Mini 900 Simulator revolutionizes radiation safety training by replicating the detection capabilities of the Thermo Mini Monitor 900 EP15. Designed with photon based fluorescent simulation technology, this powerful training tool allows users to detect Alpha and Beta particles without any environmental or safety risks.

From educational institutions and hospitals to nuclear facilities and emergency response units, the Radsim DS3 provides a safe, hands on learning experience, equipping trainees to respond effectively in contamination scenarios.

Key Features

- Realistic Simulation Technology: Detects safe, coloured powder, liquid, and cream simulants on various surfaces—including protective gloves, food, and even simulated contaminated water.
- Customizable Detection Modes: Easily configure the Radsim DS3 for Alpha, Beta, or combined Alpha Beta detection, simulating varied particle detection for an authentic hands on experience.
- Scenario Adaptability: Adjustable settings for background noise, mute, and alarm thresholds allow instructors to align the simulation environment with specific training objectives, enhancing immersion.
- Environmentally Safe Simulants: Made from common dyes, food additives, and cosmetic grade bases, all simulants are nontoxic, with full ingredient transparency for uncompromised safety.

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Nuvia CoMo 170 Contamination Training Simulator

The Nuvia CoMo 170 simulator replicates the operational features of the operational CoMo 170 contamination detector, enabling safe and effective radiation training. By eliminating the need for ionising radiation sources, this system ensures regulatory, environmental, and health safety compliance while offering unparalleled realism.

Key Features

- Advanced Simulation Technology: Accurate replication of the CoMo 170 detector with fully functional alarm, language, and configuration options.
- Dynamic Training Scenarios: Supports training for survey, location, and decontamination tasks.
- Integrated Training Solutions: Compatible with Argon's Plume SIM system for wide-area emergency response exercises. Allows simultaneous multi-detector and multi-hazard training with Argon simulators.

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AN/PDR 77 APLHA & BETA SIM PROBES

The RADSIM A-SIM-P and B-SIM-P radiation training simulator probes are for use with the Mirion / Canberra AN/PDR-77 and RDS100 survey meters. These probes provide you with a training system that enables your students to experience the operational features of the real detector without the need for real radiation sources or radioactive materials.

Key Features

- Operational Realism: Compatible with Mirion/Canberra meters including AN/VDR-2, PDR-77, and RDS100 with identical functionality and readings as the real probes.
- Dynamic Training Scenarios: Supports training for search, reconnaissance, survey, location, and decontamination procedures.
- Instructional Ease: Instructor remote control for simulating partial/full decontamination and probe failure at the push of a button.
- Advanced Simulation Capabilities: Simulates radiation hazards with realistic response and shielding effects.

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GMP-11 Radiation Safety Training Simulator Probe

The GMP-11-SIM is an advanced Beta radiation contamination training simulator designed for the Mirion GMP-11 probe. This simulator seamlessly connects to your Mirion RDS-200 or Argon RDS-200-SIM, providing an authentic training experience without the need for ionising radiation sources or radioactive materials.

Key Features

- Accurate Simulation: Responds to safe, inexpensive fluorescent powder and liquid materials that simulate beta radiation. Automatically detected by the RDS-200-SIM for seamless operation.
- Training Versatility: Compatible with both real RDS-200 and RDS-200-SIM survey meters.
- User-Friendly Design: Logarithmic analogue bar graph and numeric dose rate display.

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Radiation Detection › Training Simulators

M4A1 JCAD Chemical Hazard Detection Simulator

The M4A1 JCAD-SIM is a high-fidelity simulator for the Smiths Detection M4A1 JCAD, enabling safe, effective, and environmentally friendly training for chemical warfare and hazardous material scenarios.

Designed to preserve operational readiness and reduce costs, this simulator ensures your team is prepared for real-world challenges while extending the lifespan of your actual detection equipment.

Key Features

- True-to-Life Interface: Perfectly mimics the actual detector, supporting a seamless transition from training to real-world response.
- Comprehensive Threat Simulation: Detects and simulates a wide array of agents, including nerve, blister, and blood agents, toxic industrial chemicals (TICs) and false positives.
- Environmental Adaptability: Simulate varied conditions like wind direction, temperature shifts, and night vision
- Enhanced Control for Instructors: With a dedicated remote, instructors can set decontamination effectiveness, persistency, and contamination levels

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6150AD-K Contamination Simulator

Radiation Hazard Detection Simulator

- Large area contamination simulation 6150AD-K probe for Automess 6150AD
- Responds to safe simulation radiation sources
- Simulation of partial and full decontamination
- Simulation of detector cover plate
- Simulation of contamination of sensor face
- Perfect for radiation, HazMat and CBRN training, exercises and scenarios.

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Radiation Detection › Training Simulators

RADSIM GS4

The RADSIM series of highly realistic simulation gamma radiological sources overcome the regulatory, financial and administrative burden of live radiological source based training scenarios in an entirely safe, environmentally friendly and cost effective manner.

What truly sets the RADSIM series apart is the realism of the simulation – hide the simulation detector training label and the “Pucker Factor” is as real as it gets!

Key Features

- Dose rate and Dose readings and alarms indicating potentially hazardous radiation levels.
- Inverse square law (1/r2) response and shielding effects of different materials.
- Consistent readings across instruments each time the student revisits the same location within the exercise.

MultiGAS SIM

MultiGAS-SIM supports from one to a total of six different simulation sensor types, including O2, CL2, SO2 and LEL. Instructors can configure the MultiGAS-SIM to incorporate specific simulation sensors as required to represent fielded single or multiple sensor MultiGAS detectors. You can even configure the visual layout of the sensors on the display screen to accurately replicate the sensor layout configuration of your operational detectors.

The **MultiGAS-SIM** system delivers a highly realistic and versatile training solution through our **Long Range Vapour Source (LRVS)** technology. Designed for both open environments and confined spaces, the system can be programmed to replicate a wide range of hazardous gases and oxygen-depleted scenarios with unmatched precision.

Key Features

- Realistic Training: Mimics the operation of real gas detectors, providing trainees with practical, hands-on experience.
- Customizable Scenarios: Enables tailored training for a wide range of hazardous environments and operational conditions.
- Enhanced Learning: Real-time feedback through instructor monitoring ensures trainees learn from their mistakes in a controlled, safe environment.
- Advanced Simulation Features: Features realistic O2 readings and LRVS simulation gas emitters detected up to 25 meters (80 feet).

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Radiation Detection › Training Simulators

RDS Beta Photon Probe Simulator

The D-tect SYSTEMS Beta Photon radiation simulator probe has been designed to work with Argon's simulation RDS base unit.

The simulation Beta Photon Probe can be connected directly to the Simulation RDS base unit by flexible cable, or can be mounted on the Telepole enabling you to practice remotely monitoring high level radiation sources from a safe distance.

You can "hot connect" and disconnect the simulation Beta Photon Probe just like the real instrument – no need to turn the simulation RDS base unit of and most impressively the base unit display screen splits just like real providing real time simulated reading from both base unit and remote Beta Photon Probe enabling your trainees to experience the higher reading obtained due to the Beta Photon Probe while monitoring the base unit reading which represent the hazard at their personal location.

Inverse square law response is extremely realistic; even the effect of shielding between the probe and base unit to determine source position is realistically simulated enabling you to ensure survey teams understand what to do when that emergency comes.

Key features:

- Inverse square law (1/r2) response within real detector tolerance.
- Simulation of user body shielding for source location.
- Realistic representation of different shielding effects.
- Responds to Simulation check source.
- No regular calibration.
- No preventative maintenance.
- PlumeSIM compatible.
- Compatible with other Argon radiological simulators.

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Radiation Detection › Training Simulators

Ludlum 133-6 and 44-2 Radiation Simulation Probes

The Ludlum 133-6-SIM and 44-2-SIM are advanced radiation simulator probes designed to replicate the operational features of the Ludlum 133-6 Gamma detector and the 44-2 scintillation detector.

These simulators provide unmatched realism and usability, enabling trainees to master radiation search, survey, and localisation skills without the need for real radioactive sources. Compatible with Ludlum meters, these probes offer a versatile and cost-effective solution for comprehensive radiation safety training.

Key Features

- Expertly Designed: Identical user interface and operational characteristics to the real 133-6 and 44-2 detectors.
- Incredible Realism: Response speeds closely mimic real detectors, supporting realistic source search and localisation exercises.
- Effortless Integration and Versatility: Compatible with any Ludlum meter supporting 133-6 or 44-2 probes. o Fully compatible with PlumeSIM and other Argon simulation systems.
- Simulated Science: Inverse square law (1/r2) response within real detector tolerance.

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Radiation Detection › Training Simulators

RDS-100 / PDR-77 / CDV 718 SIM Probes

The RDS-100-SIM 3-Probe simulator set offers a cutting-edge training system that replicates the operational features of an operational Canberra RDS-100, AN/PDR-77, and CDV 718 probes.

Designed to simulate Alpha, Beta, and Gamma radiation without the need for real radioactive sources, this system provides a safe, practical, and environmentally friendly solution for mastering radiation safety skills.

Key Features

- BG-SIM-P: Simulates the Beta/Gamma probe, compatible with the RDS-100, AN/PDR-77, and M-243/VDR-2 meters.
- A-SIM-P: Simulates the Alpha probe for contamination and decontamination training.
- B-SIM-P: Simulates the Beta probe for Pancake detector functions

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Radiation Detection › Training Simulators

AN/VDR 2 DT616-SIM Radiation Safety Training Simulator

The DT616-SIM is a high-fidelity Beta/Gamma radiation training simulator designed for use with Mirion/Canberra AN/VDR-2, PDR-77, RDS100, and CDV 718 survey meters.

This innovative simulator allows trainees to experience the full operational functionality of the DT616 probe without the need for live radiation sources, ensuring safe, compliant, and practical training for critical radiological scenarios.

Key Features

- Advanced Simulation Capabilities: Simulates both Beta and Gamma radiation hazards with realistic inverse square law ($1/r^2$) response and shielding effects.
- Operational Realism: Compatible with Mirion/Canberra meters including AN/VDR-2, PDR-77, and RDS100 with identical functionality and readings as the real DT616 probe.
- Dynamic Training Scenarios: Supports training for search, reconnaissance, survey, location, and decontamination procedures with encoded signals simulate specific Gamma emitting radionuclides.
- Instructional Ease: Instructor remote control for simulating partial/full decontamination and probe failure at the push of a button.

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ADM300A-SIM Radiation Training Simulator

The ADM300ASIM is a cutting-edge radiation training simulator, designed in collaboration with Mirion to replicate the functionality of the ADM300A radiation survey meter.

Providing seamless compatibility with your operational equipment, this simulator ensures safe, realistic, and comprehensive training without the need for ionising radiation sources.

Key Features

- Unparalleled Realism: Accurately simulates dose, dose rate, accumulated dose, and alarm thresholds using safe Beta and Gamma simulation sources.
- Simulated Science: Excellent simulation of inverse square law and body shielding effects.
- User-Friendly Design: Identical menu structure, software processing, and interface to the real ADM300A V1b meter, with visual and audible alarms fully configurable to match your operational equipment.
- Advanced Compatibility: Fully integrated with Argon's PlumeSIM and supports multi-detector and multi-threat scenarios with other Argon simulators.

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GID-3 Chemical Warfare Detection Simulator

Overview:

The GID-3-SIM is a cutting-edge simulation system designed to replicate the features and functionality of the Smiths Detection GID-3 and ACADA systems. Built for military and civil CBRNe responders, this advanced tool provides a safe, comprehensive, and realistic training experience.

By eliminating the need for harmful simulants and consumables, the GID-3-SIM ensures that students gain critical hands-on experience in chemical hazard detection and response.

Features

- Realistic Hazard Simulation: Accurately simulates CW alarms and detector faults.
- Comprehensive Training: Simulates the complete setup process, including alarm testing and rain cap positioning. Offers simulated confidence tester training to replicate real-world procedures.
- Advanced Remote Control: Instructor remote control supports up to 8 simulators from over 750 meters away.
- Complete Kit: System supplied with simulation confidence tester, inlet and outlet cap, simulation rain caps, training battery pack with commercial “D” cells and carry case.

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MCAD-SIM Chemical Warfare Detection Simulator

Overview:

The MCAD-SIM is a cutting-edge simulation system designed to emulate the functionality of Smiths Detection's Man Portable Chemical Agent Detector (MCAD). This advanced tool delivers an unparalleled training experience, enabling users to master the use of MCAD systems in a safe, environmentally friendly, and cost-effective way.

With realistic simulations and powerful remote-control capabilities, the MCAD-SIM prepares responders for the demands of real-world chemical detection.

Features

- Realistic Hazard Simulation: Simulates all detected CWAs, including miosis mode.
- Comprehensive Control: Instructor remote control supports up to 8 simulators from over 750 meters away.
- Advanced Training: Simulates the complete setup process, including alarm testing and rain cap positioning. Offers simulated confidence tester training to replicate real-world procedures.
- Efficient and Practical Design: Powered by standard commercial batteries, including rechargeable options and comes complete with simulation confidence tester, caps, and training packs

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CAMSIM Chemical Hazard Detection Simulator

Overview:

The CAMSIM CAM simulator offers a groundbreaking solution for chemical hazard detection training. Designed for the Smiths Detection Chemical Agent Monitor (CAM), CAMSIM uses electronic sources to simulate chemical vapours, toxic industrial substances, and false positives—providing a safe, realistic training environment without harmful simulants.

This portable, adaptable system can be used indoors, including in public buildings, and is set up in minutes, making it a versatile asset for training on contamination, decontamination, and persistence in real world scenarios.

Features

- Diverse Threat Simulation: emulate nerve, blister, blood, and choking agents, as well as false positives, contamination effects, and wind and temperature impacts.
- Instructor Control and Instant Scenario Reset: Trainers can adjust environmental factors, contamination levels, and exercise persistency, enabling rapid scenario resets for continuous training.
- MultiDevice Compatibility: Integrates with Argon’s Plume SIM system and compatible with other Argon simulators, supporting multidetector and multi-threat exercises in a single scenario.
- Built in Error Reporting: Tracks and records user errors, allowing instructors to display detailed error reports postexercise.

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Radiation Detection › Training Simulators

AccuRad PRD Simulator

Overview:

The AccuRad™ PRD Radiation Training Simulator is a cutting-edge training solution designed to deliver the most realistic radiation detection training possible. Developed in collaboration with Mirion Technologies, the AccuRad™ PRD Simulator replicates the look, feel, and response of the actual Mirion AccuRad™ PRD.

This advanced simulator offers safe, practical training in radiation detection without the risks of real radioactive sources. Whether training indoors or outdoors, the AccuRad™ PRD Simulator ensures your students gain the practical experience they need in high-impact radiation detection scenarios.

Features

- Authentic User Interface: The simulator’s human interface, including the front and top displays, sounder, vibrator, and switch panel, reproduce the Mirion AccuRad PRD for seamless training.
- Realistic Sensitivity: The AccuRad™ PRD Simulator can detect Radsim GS4 simulation Gamma sources from up to 200 feet (60 meters), providing accurate directionality and source search capabilities.
- Simulated Body Shielding: The simulator precisely replicates the effects of body shielding, allowing users to practice interpreting readings and alarms in real-world scenarios.
- Selectable Units of Measurement: Users can choose between units such as Sv/hr, Rem, and CPS, just like they can on the Mirion AccuRad™ PRD.

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Nuvia DolMo Radiation Hazard Detection Simulator

Overview:

The Nuvia DolMo-SIM is a cutting-edge simulator designed to emulate the Nuvia DolMo Gamma survey meter with remarkable accuracy. Offering a safe and environmentally friendly training solution, this simulator eliminates the need for ionising radiation sources, making it ideal for real-world radiation detection exercises in any environment.

Features

- Unrivalled Simulation Accuracy: Linear and logarithmic analogue bar graph display, numerical dose rate readings with realistic response speeds and simulated shielding effects.
- Authentic User Interface: Fully replicates all operational features of the real detector with identical display, switch panel, sounder, and vibrator.
- Dynamic Training Capabilities: Responds to encoded Radsim GS4 Gamma sources up to 60 metres (200 feet) line of sight and enables demonstration of inverse square law, isodose rate mapping, and safe demarcation.
- PlumeSIM Compatible: Use with PlumeSIM for wide-area tactical field and emergency response exercises.

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HRM Radiation Hazard Simulator

Overview:

The HRM-SIM is an advanced radiation detection simulator designed to replicate the Sensor Technology Engineering HRM detector.

Developed for interdiction and localisation of nuclear materials, this simulator provides unmatched realism, ensuring your survey teams are prepared to respond effectively in critical scenarios. Powered by standard commercial batteries, the HRM-SIM delivers up to 160 hours of uninterrupted training capability.

Features

- Exceptional Simulation Accuracy: Detects Gamma, Neutron, and Gamma + Neutron sources with precise sensitivity. Realistic inverse square law ($1/r^2$) response within detector tolerances.
- Accurate Shielding: Simulation of user body shielding for source location and realistic representation of different shielding effects.
- Realistic User Interface: With identical components to the real HRM detector, it seamlessly replicates operational behaviour of the real detector.
- Dynamic Training Capabilities: Fully compatible with PlumeSIM for live-field and tabletop CBRN exercises.

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SP4E Chemical Hazard Detection Simulator

Overview:

The S4PE Chemical Hazard Detection Simulator is a state-of-the-art training tool that replicates the real-world functionality of the Proengin S4PE surface sampler and confidence tester.

Designed to seamlessly integrate with Argon's AP4C-SIM, this simulator offers an unparalleled training experience by emulating chemical vapours, toxic industrial substances, and false positives. Whether you're training in controlled environments or public buildings, the S4PE-SIM ensures safe, practical, and efficient preparation for chemical hazard scenarios.

Features

- Realistic Sampling Features: Confidence testing and surface sampling. Collection of surface samples with warm-up cycles. Simulates contamination, decontamination, and persistence scenarios.
- Compatibility: Operates with AP4C-SIM simulation sample pipe and compatible with PlumeSIM for wide-area tactical training.

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Radiation Detection › Training Simulators

AP4C-SIM Chemical Detector Simulator

The AP4C-SIM is a state-of-the-art simulation training system designed collaboratively between Argon and Proengin to replicate the operational capabilities of Proengin's AP4C chemical hazard detector. Provide your security force, first responder, and industrial safety teams with a realistic and comprehensive training experience—without the risks associated with live chemical agents.

The AP4C-SIM allows your team to practice detecting chemical vapours, toxic industrial substances (TICs), and even false positives in various environments, all while using safe, electronic simulation sources.

Key Features

- Realistic Simulation: Responds to electronic sources simulating CWAs, TICs, and explosive atmospheres
- Safe and Environmentally Friendly: Eliminates the need for harmful simulants, allowing realistic training without environmental impact or safety compromise..
- Instructor Control: A remote control provides instructors with full control over scenario management in real-time, allowing trainers to adjust contamination levels, wind direction, and temperature effects.
- Simulation Tools: The system includes simulation sources, hydrogen cells, error reporting cards, survey nozzles, and a carry case for easy transport. The simulator is ready to go from the box with minimum set up required.

D-tect SYSTEMS RDS Radiation Training Simulator

Overview:

In a world where radiation threats are an invisible but serious danger, training first responders to handle incidents safely and effectively is essential. The RDS-SIM Radiation Training Simulator brings the highest fidelity training experience available.

It accurately replicates the US DoD-approved RDS AN/PDR-83, allowing teams to practice without using harmful ionizing sources. Trainees experience the full spectrum of the RDS functionality, preparing them to face real radiological threats with skill and confidence.

Features

- True-to-Device Functionality: Exact replication of the real RDS interface, including visual and audio alarms, measurement units (Rem, Sv/hr), and menu navigation.
- Gamma and Beta Simulation: Responds to safe Gamma and Beta sources, enabling authentic radiological hazard training without environmental risks.
- Environmental Adaptability: Demonstrates shielding effects using materials like wood, glass, or concrete, giving teams practical knowledge of radiation protection principles.
- Instructor Control: Simple, flexible control over contamination and decontamination levels, with partial or full decontamination settings at the press of a button

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SVG-2 Radiation Hazard Detection Simulator

The SVG-2 SIM is an advanced simulator designed to replicate the Thermo Fischer Scientific SVG-2 Radiac Meter with exceptional accuracy.

Offering a safe, practical, and cost-effective training solution, this simulator eliminates the need for ionising radiation sources, ensuring students can safely learn essential survey and reconnaissance skills in any environment.

No preventative maintenance, calibration or consumables (except batteries) are required ensuring whole life cost of ownership is minimal, expensive damage to real detectors is avoided and operational readiness is maintained.

Additionally, the SVG-2 SIM eliminates the regulatory, health, and environmental concerns of real radiation sources.

Key Features

- Advanced Simulation Capabilities: Simulated external Alpha, Beta, Gamma probe for contamination monitoring and decontamination exercises. Dose and dose rate indications with analogue and digital backlit displays.
- Operational Realism: Identical interface as the real SVG-2 detector, inverse square law (1/r2) response, and realistic shielding effects.
- Flexible Training Applications: Compatible with PlumeSIM for wide-area tactical field and emergency response exercises. Multi-detector, multi-isotope capability for comprehensive scenario development.

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Radiation Detection › Training Simulators

RadEye GF-10 SIM

Overview:

The RadEye™ GF-10 Simulator is an ultra-realistic training solution designed to replicate the functionality and response of the Thermo Fisher RadEye™ GF-10.

Built for high-fidelity radiation detection exercises, this simulator eliminates the risks associated with ionizing radiation, ensuring a safe, effective, and environmentally friendly training environment. Equip your team with the tools to master radiation detection and response under real-world conditions.

Features

- Unmatched Simulation Accuracy: Realistic inverse square law response within actual detector tolerances. Simulates user body shielding and shielding material effects for precise source location training.
- User Interface Fidelity: Identical display, switch panel, sounder, and vibrator as the operational RadEye™ GF-10. Configurable menu options, including measurement units (Sv/hr, Rem, CPS), language selection and dose and dose rate alarms with customisable settings.
- Seamless Integration: Fully compatible with Argon's Plume SIM for wide-area, multi-device CBRN and HazMat exercises.

Overview:

The RadEye™ GF-10 Simulator offers realistic, risk-free training for radiation detection, mirroring the functionality of the Thermo Fisher RadEye™ GF-10. It's a safe, effective solution for hands-on exercises—without exposure to ionizing radiation.

Features:

- Unmatched Simulation Accuracy: Realistic inverse square law

response within actual detector tolerances. Simulates user body shielding and shielding material effects for precise source location training.

- User Interface Fidelity: Identical display, switch panel, sounder, and vibrator as the operational RadEye™ GF-10. Configurable menu options, including measurement units (Sv/hr, Rem, CPS), language selection and dose and dose rate alarms with customisable settings.
- Seamless Integration: Fully compatible with Argon's Plume SIM for wide-area, multi-device CBRN and HazMat exercises.

High impact radiation training

The RadEye™ GF-10 Simulator delivers a true-to-life training experience by replicating the real detector's interface, audio/visual signals, and response speed. It supports realistic source search exercises with detection of the Radsim GS4 simulation source at distances up to 60 meters.

With accurate simulation of sensitivity and inverse square law behavior, it allows trainers to demonstrate and teach critical radiation protection principles such as time, distance, and shielding without the safety, regulatory, or environmental concerns of using live sources.

Consistent, Repeatable Performance

Powerful proprietary signal processing ensures consistent, repeatable readings every time a scenario is revisited. Simulated responses across multiple units remain within the tolerances of real detectors, delivering high-quality, realistic training that meets professional standards.

Train Smarter, Train Safer

RadEye™ simulators are fully compatible with Argon's PlumeSIM system—used by leading training facilities worldwide for live field and tabletop CBRN exercises. PlumeSIM enables real-time, wide-area emergency response training with multiple simulated devices reacting to virtual hazards.

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RADSIM-SS3

Overview:

The RADSIM-SS3 is a high-fidelity Gamma survey meter simulator, designed to emulate the functionality of real radiation survey meters without the need for ionising radiation sources.

Delivering precise and realistic training experiences, the RADSIM-SS3 is ideal for developing critical radiation safety skills in a safe, cost-effective, and environmentally friendly way.

Features

- Safe & Environmentally Friendly: Responds to safe electronic Gamma simulation sources and can demonstrate shielding effects of materials such as brick, wood, and glass.
- Scientifically Accurate: Simulates inverse square law ($1/r^2$) response for accurate source detection.
- Advanced Simulation Technology: Displays dose and dose rate in Sv/h or Rem/h via combined digital and bar LCD displays.
- Integrated Training Solutions: Fully compatible with Argon's Plume SIM and supports simultaneous multi-detector and multi-isotope scenarios alongside other Argon simulators.

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Radiation Detection › Training Simulators

LCD3.3-SIM Chemical Hazard Detection Simulator

Overview:

Step into a new era of CBRNe training with the LCD3.3-SIM, the ultimate simulator for chemical hazard detection, designed to make every exercise feel like the real thing. With a realistic build mirroring the Smiths Detection LCD3.3, this simulator introduces responders to authentic scenarios without exposure to hazardous materials. Whether navigating nerve agents, industrial toxins, or chemical warfare simulations, this device is built to sharpen your team's readiness for any threat.

Features

- True-to-Life Interface: Perfectly mimics the actual detector, supporting a seamless transition from training to real-world response.
- Comprehensive Threat Simulation: Detects and simulates a wide array of agents, including nerve, blister, and blood agents, toxic industrial chemicals (TICs) and false positives.
- Environmental Adaptability: Simulate varied conditions like wind direction, temperature shifts, and night vision
- Enhanced Control for Instructors: With a dedicated remote, instructors can set decontamination effectiveness, persistency, and contamination levels

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FH 40 GSIM Survey Meter Simulator

Overview:

The FH 40 G SIM survey meter simulator offers realistic, high impact radiation hazard training without the risks of ionizing sources. This advanced simulator mirrors the operational features of the Thermo FH 40 G, empowering trainees to gain hands on experience in radiation detection, reconnaissance, and safe demarcation.

Responding to safe, electronic sources, the FH 40 G SIM provides a complete understanding of radiation behaviour, shielding, and dose management in a controlled, environmentally friendly manner.

Features

- Authentic Detection Simulation: Replicates the analogue bar graph and numeric dose rate displays, dose and doserate alarms, and selectable audio sounder.
- Realistic Shielding Effects: Responds to simulation sources over distances up to 60 meters, modelling the effects of shielding through walls, floors, and ceilings.
- Multi Device Support: Works alongside Argon’s dosimeter, radiac meter, and spectrometer simulators, as well as optional HazMat detectors, allowing for multi-isotope and multidetector scenarios.
- Enhanced Training Options: Compatible with the Thermofisher FH 40 TG Teleprobe, Argon’s FTZ612-SIM extension radiation probe and PlumeSIM system.

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Raid-100M Training Simulator

The RAID-M100 Chemical Hazard Detection Simulator is an advanced training tool designed for military and civil CBRNe responders. Specifically engineered to emulate the Bruker Daltonics RAID-M100, this simulator replicates its features, responses, and operations to deliver unmatched realism in training.

Whether preparing for chemical warfare agents (CWAs) or toxic industrial chemicals (TICs), the RAID-M100-SIM provides a safe, practical, and cost-effective solution for mastering critical detection skills.

Key Features

- Versatile Hazard Simulation: Identifies CWAs, TICs, and false positives and simulates persistent and non-persistent substances.Replicates contamination and decontamination scenarios, including probe contamination.
- Realistic Instrument Interaction: Functional sieve pack and filter replacement and monitoring of user errors such as missed confidence tests or procedural oversights.
- Rapid Deployment: Set up scenarios in under 10 minutes for maximum training flexibility.
- Sustainability & Cost Efficiency: Requires no ionizing radiation, calibration, or preventative maintenance. Operates with electronic simulation sources that are safe and environmentally friendly.

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Radiation Detection › Training Simulators

Dräger X-am Series Simulator

Developed in cooperation with Dräger, the Argon Electronics X-am 2×00/5×00 SIM replicates the full functionality of the Dräger X-am 2×00 and 5×00 series gas detectors, offering a powerful, engaging, risk-free training experience. Responding to Argon's safe, environmentally friendly simulation long range vapour sources (LRVS), instructors can quickly implement a wide variety of confined space and open area training scenarios.

Perfect for confined space, open area and gas leak detection and management training, the Dräger X-am series simulator helps ensure responders have the confidence to conduct gas monitoring, interpret readings, and respond to alarms without exposure to real gas hazards, depleted oxygen or explosive atmosphere.

Key Features

- Realistic Gas Detection Training: accurate replicates detection and alarm responses
- Seamless Compatibility: Works with Dräger's standard configuration software
- Data-Driven Training: Compatible with Dräger Gas Detection Connect for live data transmission.
- Multi Detector Exercises: Compatibility with Argon's CWA / TIC detector simulators for specialist team multi detector response exercises.
- Flexible Multi-Scenario Training: Integrates with Argon's simulation vapour sources and PlumeSIM for dynamic scenarios.

Tracerco PED+ Simulator

Thanks to a combination of Argon’s wealth of simulation experience and our relationship with Tracerco, the look, feel and response of the Personal Electronic Dosimeter (PED+) Simulator is extremely close to that of actual detector.

PED+SIM responds to Radsim electromagnetic sources that safely simulate ionizing radiation eliminating regulatory, environmental, and health and safety concerns for you and your students. You can use the simulation sources in the open or within buildings.

High impact radiation training

To ensure the ultimate training experience, all user interface components (display, indicators, switch panel, sounder and vibrator) are exactly the same as the real detector.

Response speed and characteristics when approaching and withdrawing from the simulation source are just like the real detector enabling you to deliver highly realistic source search / find training.

Simulated sensitivity enables the Tracerco PED+SIM to detect the Radsim GS4 simulation Gamma source at a free space distance of typically 200 feet (60 metres) distance line of sight.

Consistent, repeatable performance

Powerful proprietary signal processing ensures simulated readings are repeatable each time students revisit the same scenario location while also ensuring the readings observed on different simulators are within the accepted tolerances of actual detectors; all contributing to the provision of high quality, realistic training.

Even the effect of user body shielding to determine source position is realistically simulated so you can be certain your survey teams understand how to use and interpret their detector readings and alarms effectively.

Key features:

- Inverse square law (1/r2) response within real detector tolerance.
- Simulation of user body shielding for source location.
- Realistic representation of different shielding effects.
- Selectable units of measurement (Sv/hr, Rem, CPS).
- Same human interface as real Tracerco PED+.
- Configurable menu settings.
- Dose and dose rate alarm settings.
- Language selection.
- Same battery as real detector (approximately 36 hours standard operation, 150 hours operation in screen saver mode).
- No regular calibration.
- No preventative maintenance.

Time distance shielding

The PED+ training simulator enables the importance of time/distance shielding to be taught and demonstrated with ease; the activity of the simulated source realistically reduced depending upon the material between the simulation source and the simulated detector.

Extremely realistic inverse square law response allows the powerful protective combination of distance and shielding to be demonstrated enabling students to practice communication of recommendations and safety procedures without the regulatory, safety, environmental and cost restrictions associated with real sources.

Cost effective realistic training

No preventative maintenance, calibration or consumables (except batteries) are required ensuring whole life cost of ownership is minimal, expensive damage to real detectors is avoided and operational readiness is maintained.

PlumeSIM compatible

PED+SIM is compatible with PlumeSIM, Argon's proven Live Field and Tabletop CBRN exercise system. In use by many of the world's leading training facilities, PlumeSIM enables real time instrumented wide area tactical field and nuclear / HazMat / Chemical Warfare emergency response exercises to be conducted using single or multiple simulation device types that respond in the real time to simulated hazards.

PED is a trade mark of Tracerco. Tracerco is a trade mark of Johnson Matthey.