Engage. Explore. Empower.

Connecting Visionaries in Radiation Safety, Science and Industry

MIRION Connect 24

Annual Users' Conference

July 29 - August 2 | Omni Dallas Hotel, Dallas, TX

MIRION TECHNOLOGIES

Mirion Services:
Your Product-to-Solution Partner!

Nicole Guglietta
Kara Phillips

Mirion Connect | Annual Users' Conference 2024

Dallas, Texas

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What is a "Solution"

- You have needs.

- Mirion has products
- Mirion has services

- For a solution, you need both.

Mirion Services:
Product-to-Solution Partner

Solutions for
- Improving and Evolving

Solutions for
➢ Getting Started

Solutions for
➢ Keeping Things Running

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Solutions for Getting Started

HOW TO GET STARTED

- Finding the right equipment

- Getting your team prepared

- Planning your installation

- Going from installation to operation

SERVICES PRODUCT ZOOMS

- Installation

- **Start Up Assistance**

- **Training (lots of options!)**

- IQ/OQ Services

- Consulting

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Start-Up Assistance

You have a new system,
but not enough
time or knowledge
to put it fully into operation?

Our Start-up assistance includes:

o On-Site or Remote services

o Device Setup

o Calibration (Constant Efficiency)

o QA Set-Up

o Data Review

o Unknown Sample procedures

Our Start-up assistance service will leave you system set-up and fully operational when we leave.

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Mirion Training Courses

Not sure how a new product or software can streamline workflows and improve efficiency?

Or need to become your site's Subject Matter Expert?

Solution: Mirion has more than 50 lecture, hands-on sessions, and interactive learning experiences.

Training classes are taught at:
- o   Mirion Facilities
- o   Your Facility
- o   Virtually
- o   E-Learning

Our Focused and Progressive Training will guide you from Fundamentals to Subject Matter Expert, ensuring your Success.

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TRAX TO expertise **Apex-Gamma Spectroscopy Software**

- GP101 Principles of Radiation Detection
- GP101 Fundamentals of Gamma Spectroscopy
- GP101 Principles of Radiation Detection

F Fundamentals

- SU-635 Apex-Gamma Operations

T Technician

- SU-472 Genie 2000 Algorithms

S Specialist

- SU-601 Interpretation of Gamma Spectroscopy Results
- SU-636 Apex-Gamma Advanced Topics

E Subject Matter Expert

- We have 6 Training Trax Topics
  - Genie, Apex A/B, Apex Alpha, iCAM and ISOCS
- The Trax consist of 3-4 training levels
  - Fundamentals, Technician, Specialist and Subject Matter Expert
- Placement Exams Offered
- SME Certificate awarded after competition of Trax

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Solutions for Keeping Things Running

What are the problems you might face?

- Keeping up with calibration schedules
- Unexpected failures
- Spare/replacement parts, quick!
- IT Tells me I need to change computers…

SERVICES WE OFFER

- Preventative Maintenance Services
- In-house Calibration Services
- **Whole-Body Calibrations**
- **Extended Warranties**
- Consulting Services (Lifecycle Management)

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Keeping your whole-body counter up and running:

Not enough expertise on staff, or the annual calibration source standards are too expensive to maintain?

Whole Body Calibration Services

Calibrations performed by qualified experts in in-vivo counting, laboratory spectroscopy, and in-situ spectroscopy:

- **NIST**-traceable sources and models; industry standard phantoms for in-vivo calibrations
- **Full calibration** documentation package for future reference and compliance
- **Calibrations** conducted according to relevant consensus standards (e.g., ANSI, ASTM)
- Sources and Phantom provided for calibrations

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Let's be smarter about repairs

- **Extended Warranties**
  - Budget ahead of time in case something goes wrong
  - No need to get emergency approvals
- **Spare Parts Management**
  - Proactively "stock" critical spare parts
  - Many storage solutions
  - Also useful for "consumables", such as ICAM filters

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Solutions for Improving and Evolving

What problems might you face?

- Improving sounds great, but who has time for that?
- I don't even know what is possible
- I need help to convince my management that investing in an upgrade will save time/money

SERVICE SOLUTION ZOOMS

- **Consulting**
- **Software Customizations**
- **Updating HPGe for ISOCS**
- **Contamination Monitors:**
  - **Passive Studies**
  - **Radon Progeny Rejection Optimization**
- **Neutron Dose Studies**

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Some examples of "Consulting"

➢ Creating a nuclide library file for Genie/Apex specific to your needs.

➢ Talking with your IT group to plan a database migration or upgrade campaign.

➢ Reviewing your SOP to let you know what needs updating to be compatible with new products… (and we can do those updates for you too)
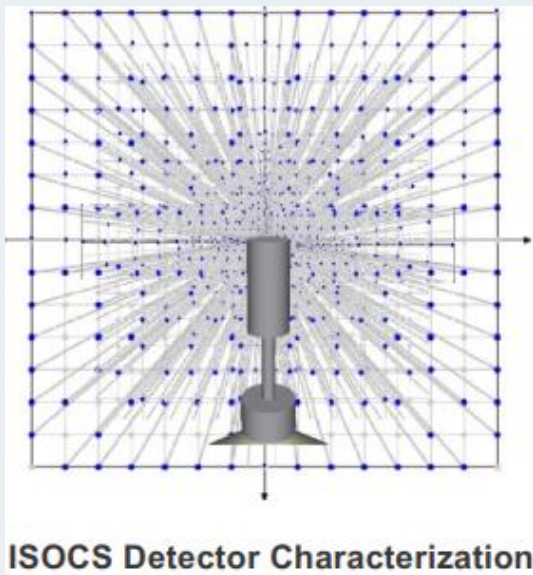
➢ And so much more…

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Some Examples of "Customizations"

- **Providing Python scripts to…**
  - Automatically provide exactly the metric you are looking for.
  - Automatically move results to your data reporting system.
  - Automatically prompt for asking inputs that you want recorded in your measurement.
- **Provide Report Modifications to…**
  - Put your name / company logo / other identifying information on the software headers.
  - Simplify/modify the report to your exact needs.
- **Provide "Bespoke" software solutions**

```python
from com.canberra.datasources.spectroscopy.cam import Datasource, \
    OpenOptions, CloseOptions, ParameterCodes

def execute(chan, step):
    ds=Datasource(chan)
    f = open("c:/Genie2k/test/simpletest.txt", "w")
    f.write("chan: " + str(chan) + "\n" + str(step))
    f.close()
    return 0

def setup(chan, step):
    return 0
```

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ISOCS Detector Characterization

Interested in unlocking the advantages of ISOCS, but not sure how to get started?

STCAL: Have Mirion Services characterize your HPGe Fleet for ISOCS at your site

- **Saves Time:** STCAL is performed on-site at your convenience.
  - No need to process an RMA.
  - No detector warm-up required.
  - Eliminate shipping delays.
- **Minimized Risk:**
  - Reduced risk of damage during transport.
  - Fewer chances of vacuum issues from thermal cycles.
- **Convenient Setup:**
  - All hardware and sources provided.
  - No need to disconnect your MCA; we bring our own equipment.
- **Result:**
  - Your detector is fully calibrated and operational upon completion.

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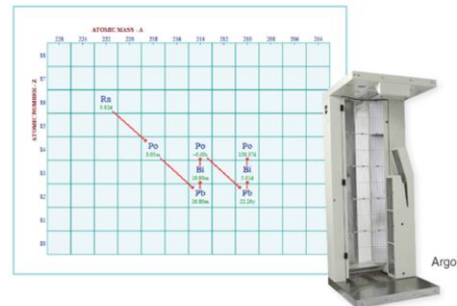
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Getting More out of your Contamination Monitors

Delays at the RC exit:

Can we reducing false positives?

- Radon Progeny in the environment can cause false positives, causing delays at the RC exits
- Radon Progeny Rejection Algorithms can help! But they need to be optimized...
- "CM-Radon" – a remote service to review your CM data and provide recommended updates

Dual Purposes:

Can your contamination monitor double as a passive whole-body counter?

- Contamination monitors are for surface contamination.
- But... with proper studies a gamma-sensitive contamination monitor can be used for whole-body counting clearance measurements
- "CM-Passive" – Mirion Services brings calibration phantoms to measure CM whole-body sensitivity and provides report needed for updating procedures

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Mirion's "Neutron Dose Studies" Service

Neutron Dose Calibration Factors; Do you need yours updated?

- Dosimetry program changes?
- Changes in shielding design or new neutron source terms?
- New plant activity, such as spent fuel campaign?
- Power uprates or updated work processes involving neutron dose?

- One week of onsite dose measurements performed per ANI Bulletin 11-02 and ANSI N13.11 by Mirion personnel

- All necessary equipment, including phantoms, neutron detectors, placement fixtures, and NIST traceability

- Report providing documentation of measurements and summary table of dose ratios for dose calibration interpretation

- Feel confident in Mirion's expertise for delivering accurate and efficient measurement results

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Tying it together:

The Mirion Customer Support Agreements

- Do you need reliable and cost-effective support for your radiation protection equipment and systems?

- Do you want to improve uptime, performance, and risk management?

- Do you want to access expert technical assistance, preventive maintenance, and remote monitoring?

- Do you like discounts on other Services?

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Tying it together:

The Mirion Customer Support Agreements

Mirion Services CSA Models and Deliverables	OpenEMS CSA	Introductory CSA	Software Support CSA	Extended Warranty CSA	On-Site CSA
Priority Technical Support	✓	✓	✓	✓	✓
Software Updates	✓	✓	✓	✓	✓
Online Customer Portal Access	✓	✓	✓	✓	✓
Discounted Services	✓	✓	✓	✓	✓
Online Training – 10% off	✓	✓	✓	✓	✓
Mirion Connect training – 1 person, 2 courses or 2 persons, 1 course free [1]		✓	✓	✓	✓
Mirion Connect attendance – 2 persons free, additional persons 10% off		✓	✓	✓	✓
Professional Services (optional, see list above)			✓	✓	✓
Online Training – 1 free course			✓	✓	✓
Discounts – Training Outside CSA (10% off)			✓	✓	✓
Firmware Updates		✓		✓	✓
Repairs, HPGe detectors included [2]		✓		✓	✓
Parts		✓		✓	✓
Discounts – Multi-System Software			✓		✓
Rollover Services					✓
Annual Health Check on-site visit					✓
Discounts – Introductory CSA to CSA (5%)					✓
Discounts – Multi-year [3]					✓
Dedicated Spares Inventory (optional)					✓
New hardware replacement allowance (optional)					✓
Emergency visits – one emergency on-site visit per year					✓
Annual Report to document deliverables and activities					✓

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Thank you