MIRION Connect 25

Annual Users' Conference

INNOVATION AT WORK

Connecting Visionaries in Radiation Safety, Science and Industry

Conrad Orlando Resort, FL –July 28th – August 1st

MIRION
TECHNOLOGIES

Alpha/Beta Counting and Alpha Spectroscopy Laboratory Updates

30 July 2025

Lee Reagan

Product Line Manager

Alpha/Beta Counting and Alpha Spectroscopy

Mirion Connect | Annual Users' Conference 2025

Orlando, Florida

Agenda

- Introduction
- Product Portfolio
- Obsolete Products Status
- Current State and Direction
- Alpha/Beta Hardware/Software
- Alpha Spec Hardware/Software

Who am I?

- Started in 1989
  - Electronics Tech
  - Field Service
  - Production Manager
  - Tech Support Manager
- Alpha/Beta Product manager 2006

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Interactive Q&A Policy

- Feel free to ask questions as I go… I promise it does not bother me!

- We will ALSO have interactive Q&A at the end, time permitting…

Product Portfolio

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My Products

Alpha/Beta Hardware

Legacy

- IN20/MINI20
- LB1000
- LB4000 and LB4100
- LB4100
- LB5100
- APC and APC-II
- Series 5 (SOLO, APC, E, XLB)

Current

- iMATIC and iSOLO
- LB4200
- Series 5 LB5500
- Series 6LB

My Products

Alpha Spectroscopy Hardware

Legacy

- IN114/IN116/Adagio
- Oasis
- TC256/TC257
- 7401/7401VR

Current

- Alpha Analyst 7200-XX

My Products

Alpha/Beta Software

Legacy

- Scarabee
- Alpha Analyst
- LB5100-W SW
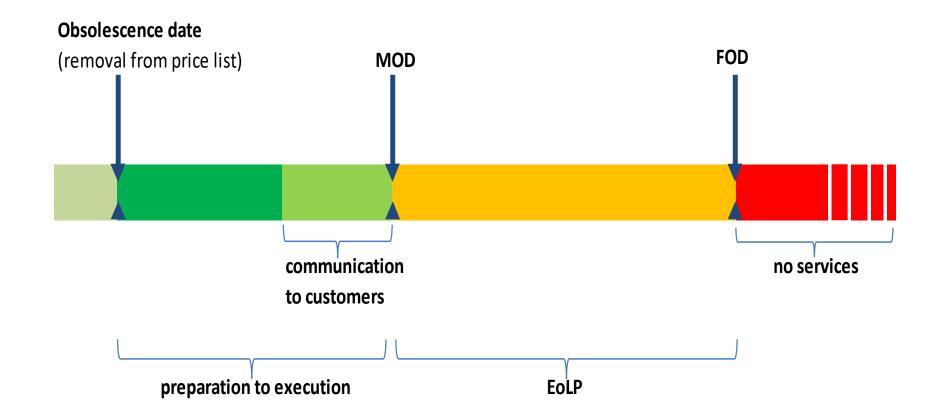- LB-Link
- LB4000 SW
- OSUM
- Eclipse

Apex-Alpha/Beta™

Current

- APEX-Alpha
- APEX-Alpha/Beta
- iLINK

i Link

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End of Life Planning

End of Life Planning

| Product	FOD	Notes	Status
7401/7401	2018	NIM Modules	Beyond full obsolescence date
LB4100	2020	LB4200 replacement, Existing Contracts Continue No Board Level Repairs Possible	Beyond full obsolescence date
Eclipse LB-LINK OSUM Scarabee	PC OS Dependent	No Support	Beyond full obsolescence date
Series 5E, APC	2015	Some common S5 parts available	Beyond full obsolescence date
Series 5 XLB	2026*	Series 6LB replacement Full Support	*FOD Extended – see next slide

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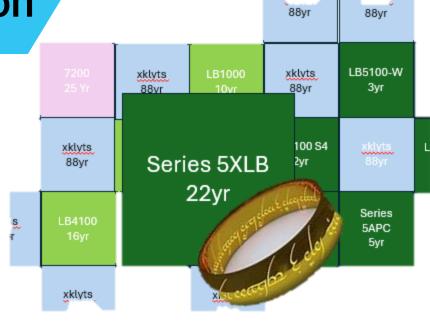
Series 5-XLB End of Life Period Extension

Reasons it is/was special:

- Exceptionally Long Life

- Survived multiple step-parents

- S5-LB5500 Continues Today (shared parts)

- Many (but not all) parts still available

Existing service contracts can continue for now…

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Series 5-XLB Upgrade Options?

- Option A (Rejected)

  - Package to upgrade functionality

  - Kludge noun 'klüj : a haphazard or makeshift solution to a problem

- Option B (under consideration)

  - Only retain cart, some lead, sample carriers

  - Expensive

- Option C (no offer)

Thoughts?

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Current State and Direction

APEX-Alpha/Beta Software

Apex-Alpha/Beta™

Current State

- V2.2 Released since last year

- Windows 10 or 11

- SQL Server 2022

Version 2.2 release Updates

- Windows 11
- Barcode Updates
- ISO 11929 Mda Calculation Update
- Procedure + QC Sequence
- Time Delay
- Updated StimuSoft Report Engine
- SQL Server 2022

What makes it cool?

- Compatibility with most Canberra/Tennelec vintage gas flow counters

- Series 6LB Independent Counting

- Series 6LB delayed start and recounts

- AutoCal on changer-based systems

- Automated saving of environmental samples

- SQL Server and StimulReports Integration

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How can we make it BETTER?

Apex-Alpha/Beta™

Possible Changes/Improvements

- Combine Main, Sample Assigner Views and Data (Data Review) Tabs
- Add iMATIC and iSOLO
- Allow shared procedures between types
- Allow client operation for shared database server
- LB4200 Infinite Repeats (or a really high number!)
- Error recover (ignore and continue option)
- "Tennelec" Mode (assign procedure by group)
- Provide ability to disable gas conservation

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What else?

MORE Possible Changes/Improvements

Apex-Alpha/Beta™

- Automatically rerun QC after X samples have counted

- Better QA/QC charting and notifications

- Correlation/Causation Tracking (Space weather, diurnal, seasonal, day of week, etc.)

- Auto Gain Adjust with QA checks

- Series 6LB assign preset batch from front panel

- Enable Microsoft Excel style copy paste for Batch setup

- Rolling Average Backgrounds

If you have ideas on how to make it easier or better, please don't be shy!

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LB4200 Status

Current State

- Stable with no plans to rationalize

What makes it cool?

- Up to 16 detectors in single stack
- Up to four independent "Systems"
- Independent Detector Start/Stop
- Combined Plateau/Drawer
- 2", 5" or 8" Detector(s)
- Easily Field Upgradable up to the fourth drawer
- Front Access to Drawer for Service or Replacement

Series 6LB Status

Current State

- No plans to rationalize

- New Models for Config

- New Functionality Coming Soon

What makes it cool?

- AutoCal

- Start Routine Counts INDEPENDENT of APEX

- Touchscreen information and functionality

- 50 or 100 Sample Capacity

- Lock and Load Stacks Available

- Sample start and recount timing

- Easy Front Access

- Optional barcode/camera

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Series 6LB Config

Today (Standard)	Soon	Notes
Complete 50 or 100 Sample Unit	Incomplete Base Unit	Lower Priced
Includes Standard (50 or 100) Removable Stacks	• Choose Fixed or Removable • Choose 50 or 100 Stack Length	Lower Priced Options if removable stacks aren't needed
Tennelec Sample Carriers/Inserts	Choose only set(s) that are NEEDED	• Lower Priced • Only Get what is needed
Coated Shield	Choose Coated or Raw Shield	Lower Price Option
Standard Limited Mobility Cart	Choose Standard Cart or Short Cart or Tabletop Stand or None	
Full Accessory kit including keyboard tray, extra carriers, tools, touchup paint (for shielding), oil and more	• Base includes basic accessories • ACCKIT2 includes more (but no keyboard or monitor tray) • ACCKIT3 includes EVERTHING	• ACCKIT2 is universal • ACCKIT3 only compatible with standard cart

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Series 5 LB5500 Status

Current State

- Future Production Limited
- Need Series 6 version, but development has not started

What makes it cool?

- AutoCal
- 5" x 50 Samples
- APEX-Alpha/Beta Functionality

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iLINK Software

Current State

- V2.0.4

- Compatible with Windows 10 and 11

- SQL Server 2019

What makes it cool?

- It makes setup and data collection on iMATIC and iSOLO easier

- The fact that it still runs under Windows 11 and newer SQL

No plans to update or make any further changes to iLINK
(Subject to Change)

Again, optimum would be to integrate into APEX-AB…

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iSOLO Status

Current State

- Stable with no plans to rationalize
- Direct to Print struggles
- Barcode reader option removed

What makes it cool?

- Gasless PIPS® detector
- Radon Discrimination
- Sample Holder Variety
- Battery or Mains Power
- Two Detector Options
- Unguarded, Guarded or Guard+Shielding

iMATIC Status

Current State

- Stable with no FIRM plans to rationalize

- Direct to Print struggles

- Barcode reader option removed

What makes it cool?

- Gasless PIPS® detector

- Radon Discrimination

- 50 or 100 Samples

- Built-In UPS

- Configurable

Apex-Alpha Software

Current State

- Version 1.4

- Compatible with Windows 10 and 11*

- SQL Server 2017

- Version 1.5 in the Queue

What makes it cool?

- Automates all those Genie tasks that are cumbersome and easily for gotten… x the number of chambers!

- Desktop or Client/Server

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*Requires Genie 4

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What could make it better?

V1.5 Expectations

- Integration of bug fixes and features
- Update of SQL and other requirements

Apex-Alpha™
Alpha Spectroscopy Software Suite

Other Ideas

- Integrate data more seamlessly to allow third-party querying
- Replace Reporting Engine with Stimulsoft
- Improve QA
- Improve Speed of Analysis

*Requires Genie 4

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Alpha Analyst

Current State

- No plans to rationalize
- Cost, Quality and Reliability Improvements Ongoing

What makes it cool?

- No buttons, knobs or switches
- Complete Software Control
- Expandable
- Desktop or Tower
- APEX-Alpha Integration

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Closing Q&A

How to talk to me?

★★★★★ ▪ Text

▪ Outlook Meeting Invite

★★★ ▪ Phone Call

★ ▪ Email

2025 Unread: 984
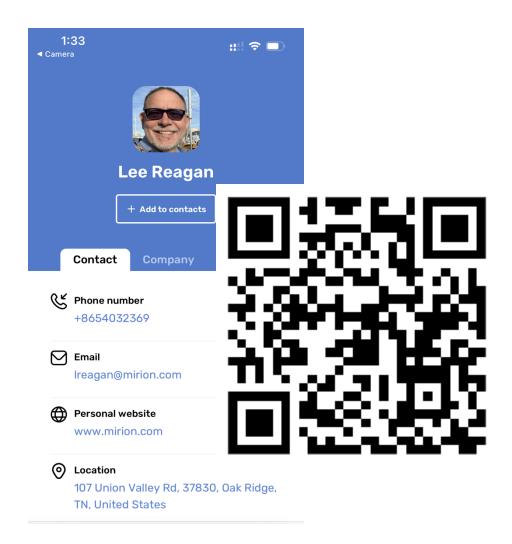
One star… would not recommend!

1:33
◀ Camera

Lee Reagan

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Thank you