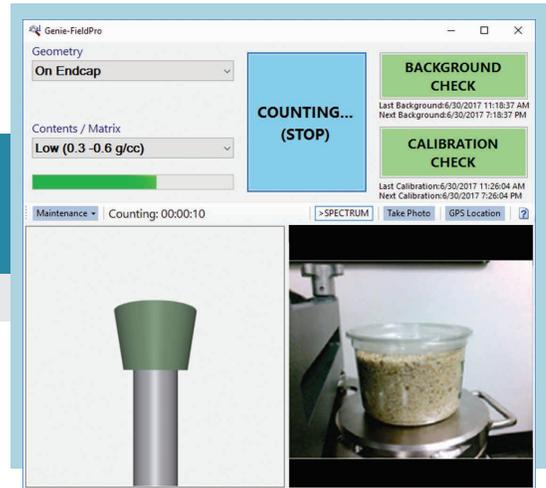# MIRION
TECHNOLOGIES

Genie-FieldPro™

Gamma Spectroscopy Sample Counting Software

Genie-FieldPro software

KEY FEATURES

- Simplified user interface for gamma sample counting by non-experts
- Uses powerful and familiar Genie™ 2000 analysis algorithms
- Sample count time and analysis automated by user selection of sample size and matrix
- Automated "Clear" or "Above action limit" results report generation
- Highly visible acquisition progress bar
- Single click operation for background check and calibration check
- Automated sample data export to Apex-Gamma™ System for remote expert review
- Color-coded calibration check and background check status

- Calibration check and background check failure/overdue lockout
- Count-to-MDA acquisition option
- Spectrum view option for experienced user
- Can be used with any scintillation detector that is compatible with the Osprey® Digital Tube Base
- Windows 10 x64 Compatible
- Optional Camera and GPS integration for recording sample images and measurement location

DESCRIPTION

Genie-FieldPro software provides a powerful user interface for streamlined and simplified gamma spectroscopy sample counting. Built on top of the Genie 2000 acquisition and analysis platform, Genie-FieldPro software is designed for maximum usability by field technicians to quickly and confidently analyze samples for gamma radiation, regardless of their spectroscopy knowledge level.

Genie-FieldPro software allows users to identify a sample geometry by two customizable drop down selections (Geometry and Contents/Matrix). A count is initiated by simply entering a sample ID number and selecting start. The count time, calibration, and analysis parameters are linked to the selection of the geometry and are automatically executed with the count. To improve traceability and confidence, the user is prompted to take a photo of the sample at the conclusion of the count. This photo is then saved alongside the spectrum file. Also, GPS information can automatically be associated with a sample count for measurements performed out of doors.

The user interface is completed with a calibration check function and background check function. These buttons will launch a pre-configured count sequence and report a pass or fail result. Failure will lock the system from further sample counting until the check is successfully passed. The software will also maintain a schedule of when the calibration or background check is next due, and require the user to complete and pass these checks by locking out the system until they are executed and cleared.

Sample configurations for detector configuration:

	Container	Contents	.cal File	Quantity	Units	Mass, g*	Acquisition (s)	.asf File	Image File	Selectable	Limits Category	Min Count Time	Max Count Time
	Marinelli	Low (0.3 -0.6 g/cc)	MB_L_CEBR20.CAL	0.353	kg	353	600	Example.ASF	Marinelli.png	☑	Food	10	3600
	Marinelli	Medium (0.6 -1.2 g/cc)	MB_M_CEBR20.CAL	0.549	kg	549	900	Example.ASF	Marinelli.png	☑	Food	10	3600
	Marinelli	High (1.2 -2.0 g/cc)	MB_H_CEBR20.CAL	1.34	kg	1340	1200	Example.ASF	Marinelli.png	☑	Food	10	3600
	On Endcap	Low (0.3 -0.6 g/cc)	EC_L_CEBR20.CAL	0.213	kg	213	900	Example.ASF	OnEndcap.png	☑	Food	10	3600
	On Endcap	Medium (0.6 -1.2 g/cc)	EC_M_CEBR20.CAL	0.426	kg	426	900	Example.ASF	OnEndcap.png	☑	Food	10	3600

Genie-FieldPro Sample Configuration Screen

The Genie-FieldPro count and analysis configuration is all managed by a password-protected user database accessible from the main screen. Administrators can add new counting configurations by simply specifying a new geometry and matrix. Each counting configuration uses a Genie analysis sequence file (*.ASF) for analysis and a Genie calibration (*.CAL) file for efficiency calibration. When combined with the readily available generic ISOCS™ characterizations of the scintillator probes, the efficiency calibrations can easily be created using ISOCS or LabSOCS™ mathematical efficiency calibration software. Therefore, no radiation sources are required for efficiency calibration. Counting duration can be defined either by real or live time, or by a count-to-MDA option. Each geometry can also be associated with an image file (such as *.PNG) to display a visual representation of the selected geometry on the main screen.

Genie-FieldPro software can operate as a standalone system, or it can be networked with a remote Apex-Gamma application for data review and archival at a central location.

TRACS Transportable Radiation Analysis Counting System

Osprey Digital MCA Tube Base for Scintillation Spectrometry

Genie-FieldPro software includes a file transfer utility to queue up and relay spectral data to a specified network location, where the Apex-Gamma Sample-Import utility can collect this data and prepare it for processing in the robust Apex-Gamma data review application.

Genie-FieldPro software is designed to be the front-end operating system of the TRACS™ Transportable Radiation Analysis Counting System. However, it can also provide a simple and intuitive user interface for any scintillation detector-based gamma spectroscopy system using the Osprey Digital Tube Base as the MCA.

SPECIFICATIONS

ORDERING INFORMATION

- Model Genie-FieldPro Genie 2000 FieldPro Software.
  - Requires S500/S502 or S504 Genie 2000 Basic (Version 3.4.1 or later).
  - Requires S501 Genie 2000 Gamma Option (Version 3.4.1 or later).

- Additional Options:
  - TRACS-ELE: Electronic Accessories for TRACS unit. Includes USB Camera and GPS Dongle, compatible with Genie-FieldPro software.
  - TRACS-GEO: TRACS Geometry Service (Standard). Create and integrate 4-5 standard ISOCS Geometries with the system software.
  - TRACS-GEO+: TRACS Geometry Service (Advanced). Create and integrate 4-5 advanced ISOCS/LabSOCS models with the system software.
  - S574C LabSOCS Efficiency Calibration Software – for sample counting
  - S573C ISOCS Efficiency Calibration Software – for in situ measurement of objects

- Genie-FieldPro software is also included with:
  - TRACS Transportable Radiation Analysis Counting system. Includes:
    - Quick assembly cart with shielded sample counting cavity
    - Genie-FieldPro software for easy push button acquisition and automated analysis
    - Osprey Digital Tube Base, GPS and camera accessories
  - Requires:
    - Osprey-compatible scintillator probe, such as CEBRS-2x2™, CEBRS-1.5x1.5™, LABR-1.5x1.5, NAIS-2x2™ or 802-2x2 detectors
    - Laptop computer or tablet with Windows 10 operating system

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