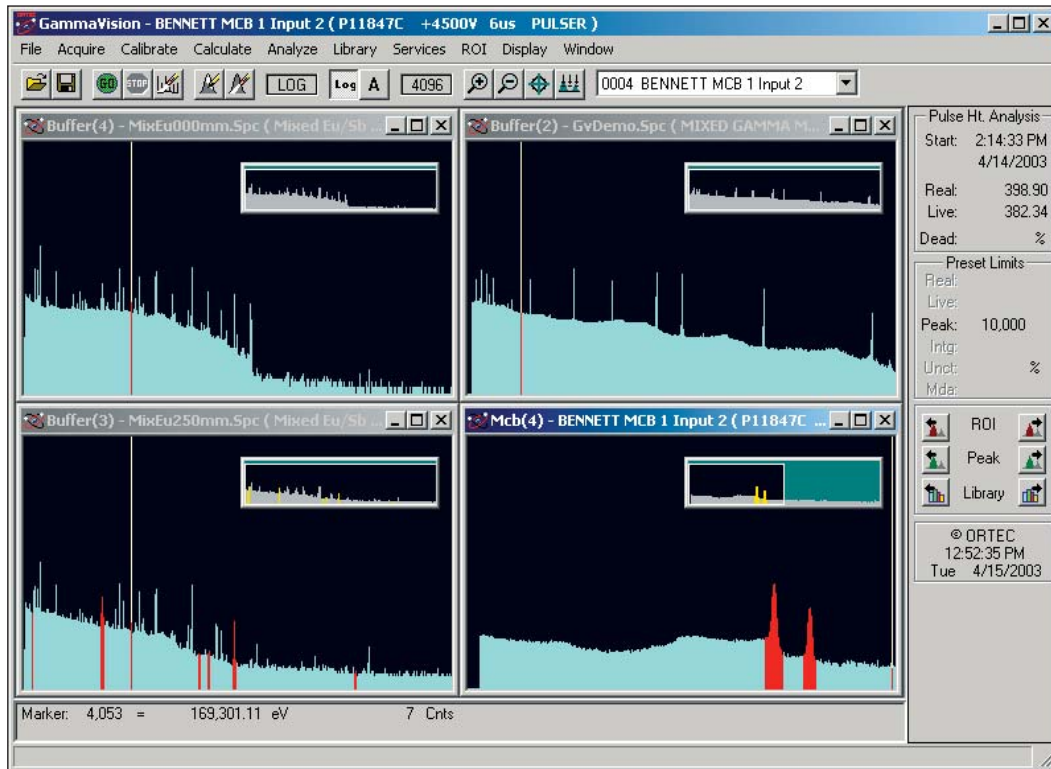


For High-Resolution Gamma-Ray Measurements, Analysis, and Reporting. . .

Get it done faster. . .



Be more precise. . .

- **NEW** Multiple detector, high-productivity graphical user interface
- **NEW** Highly-synchronized automated multi-detector acquisition features
- **NEW** Enhanced calibration versatility
- **NEW** Full-featured annotated analysis results display
- **NEW** Annotated, customizable spectral display printouts with the new Winplots
- **NEW** Optional embedded DataMaster: Import/Export any spectrum in any format
- **Proven** The most advanced Analysis for every gamma-ray spectroscopy need
- **Proven** PC-based data acquisition and MCA controls
- **Patented** True-Coincidence Summing Corrections
- **Time-Tested** Job Streaming to automate your acquisition and analysis routines
- **Impeccable** Quality Assurance features to validate your data integrity

GammaVision-32 Version 6 — The Finest Gamma Spectrometry Software In The World Just Got Better!

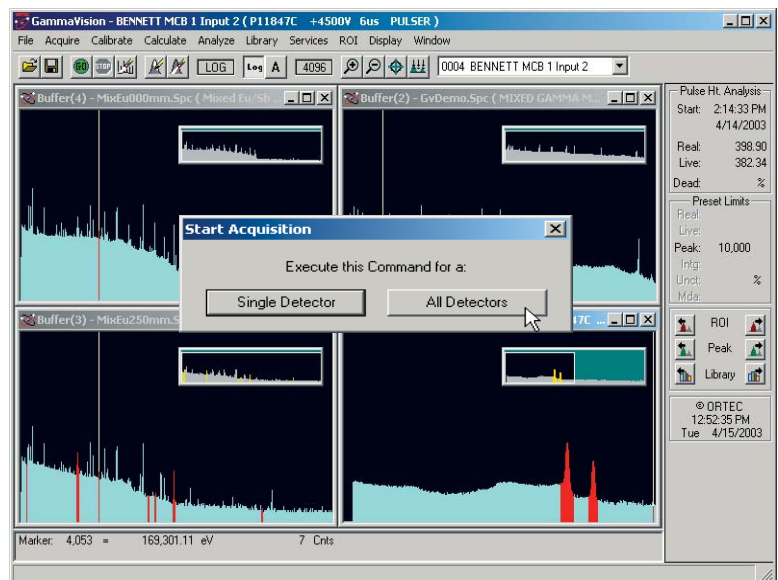
ORTEC continues to bring the finest in radioactivity acquisition, analysis, and reporting software — with the latest release of GammaVision-32. This latest release extends the capability of the world standard in gamma-ray software to provide an even more advanced tool to simplify and reduce effort in your counting laboratory. This version of GammaVision-32 focuses on providing powerful tools for enhancing the user interaction through the new Multiple Detector Interface; employing new, more powerful display of analysis results features; creating a fully-embedded option for spectral import/export flexibility for any spectrum anytime; adding major enhancements to reporting tools through the new Winplots, and adding enhanced calibration versatility. Now more than ever, GammaVision-32 is your first choice in Gamma Spectrometry software.

New Features of GammaVision-32

Multiple Detector Interface (MDI)

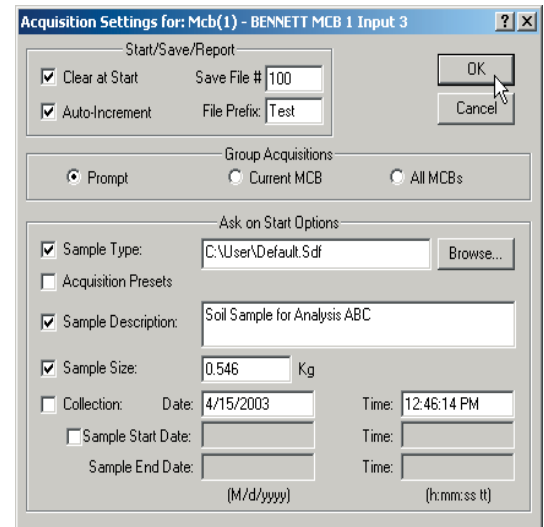
With the new GammaVision-32, your entire gamma spectroscopy laboratory can be visible within the GammaVision-32 program interface.

The new Multiple Detector Interface in GammaVision-32 V6 allows viewing up to 8 Detector and 8 Buffer windows simultaneously for a total of 16 interactive windows. Controlling multiple detectors, visually comparing spectra, and viewing multiple MCB properties is now easier than ever! Up to 250 detectors can be connected to GammaVision-32.



Simple Simultaneous Acquisition

The new interface not only allows viewing and comparing of spectrum windows, but also for maximizing sample throughput in your lab. You can begin acquisitions of multiple samples or select one detector at a time. Synchronizing data acquisition on multiple detectors simultaneously is now a snap! Acquisition options allow for automatic acquisition for a group or single detector. The analyst can be prompted for acquisition options when acquisition is stopped and started, or the preferred option can be selected. The new features are sure to improve the performance of your lab. . . **and FAST!**



Simplify. . . Automate. . . Reduce Costs

Precise Spectral Reports in GammaVision-32 and the new Winplots

More Robust Spectral Display Options

The New Analysis Results Display

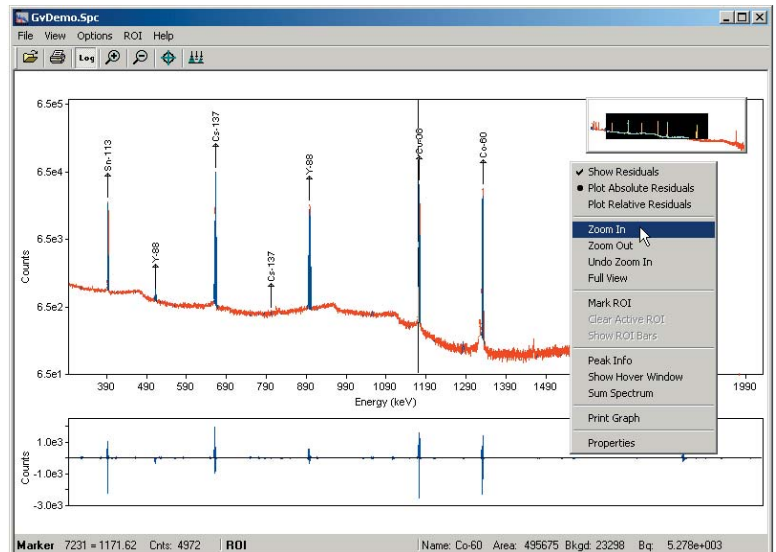
You now have more power to create the display you want with peak nuclide identification, absolute and relative residuals, and a variety of flexible display properties for every aspect of the spectrum display. Zoom in to view an expanded region of the spectrum with a click of the mouse. Display residuals and axes or choose to turn them off. It has never been easier or faster to identify a full-energy peak than with the new Analysis Results Display!

Now a Precise Spectral Reporting Tool!

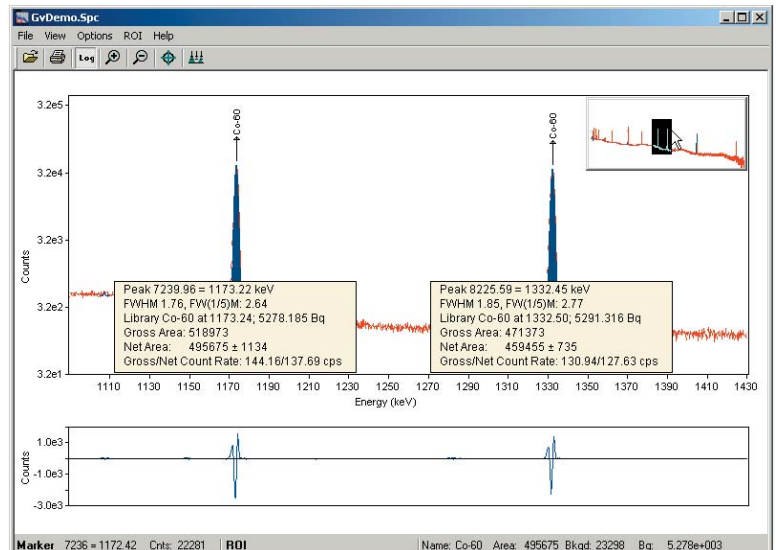
The new GammaVision-32 improves not only your ability to quickly and easily identify and highlight energy peaks on screen, but also to quickly create a precise spectral report for the region of the spectrum that you need. . . and that is just the beginning with the new Winplots!

With the new Winplots, you will make more informative plots: change fill properties for identified, unidentified, multiplet, and composite peaks; display spectrum data in points, line, or filled formats; navigate easily with peak information pop-ups; and toggle quickly between manual or automatic scaling of all axes. These same features are available not only within WinPlots, but also within the new GammaVision-32 Display Analysis Results!

Learning the simple controls of one transfers directly to the other, saving time and money.



ZOOM

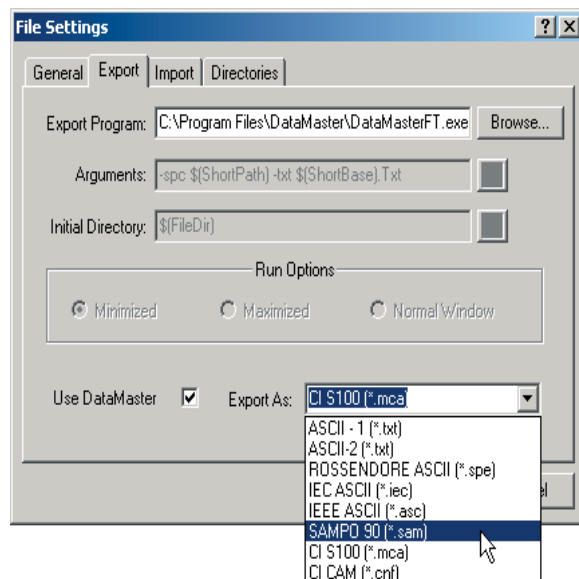


Any Spectrum Format — Anytime!

Embedded DataMaster for Spectrum Format Conversion

When you need to analyze spectra from various data formats, you need to do so quickly and easily — with as few steps as possible. An option is available for GammaVision-32 that includes a fully-embedded application which makes reading and writing in numerous spectral formats a snap!

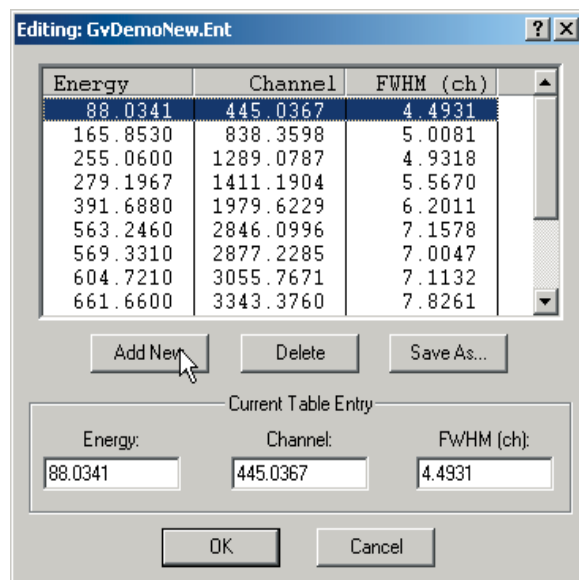
DataMaster is a powerful spectrum conversion utility that is supported as an add-in for GammaVision-32. This program allows superior flexibility in converting between a wide variety of spectrum formats for use in GammaVision-32 and other software products. Switching between different formats is now as simple as opening or saving a file!



The Ultimate in Calibration Versatility With the New Interactive Calibration Feature

Manual Energy Calibration

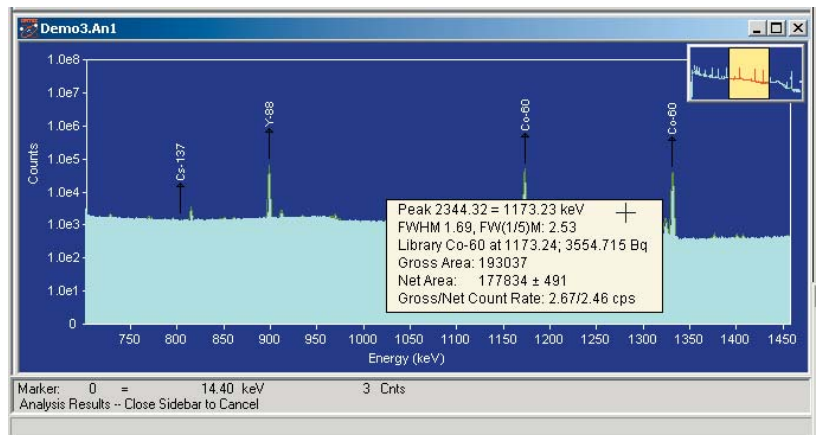
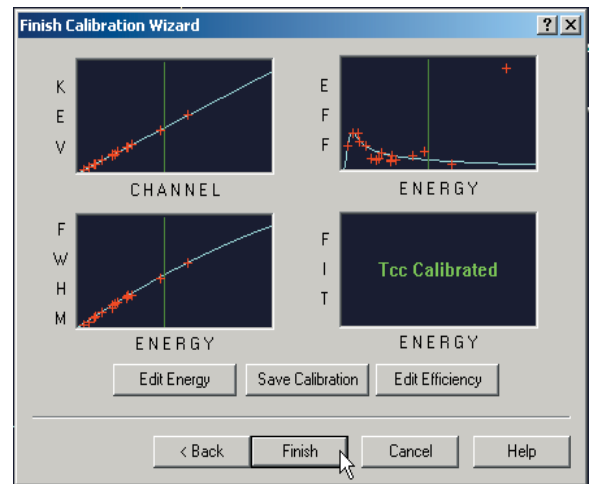
When the time comes to import a spectrum from another format, you need to fine tune the energy calibration of your spectrum and you need to get it done without delay. The newly enhanced calibration features in GammaVision-32 include a Manual Energy Calibration dialog that offers greater flexibility in fine tuning calibrations and ensuring compatibility with other spectrum formats. The Channel and FWHM associated with each energy peak can now be manually defined to match data pairs from other system spectra and precisely duplicate their calibrations. Calibrations performed using the interactive and automatic methods offered in earlier versions of GammaVision-32 can also be adjusted easily to meet specific needs.



Proven, Patented — Time-Tested and True. . . GammaVision-32 Analysis and Reporting Software for Ge Gamma-Ray Spectroscopy

The GammaVision-32 Approach

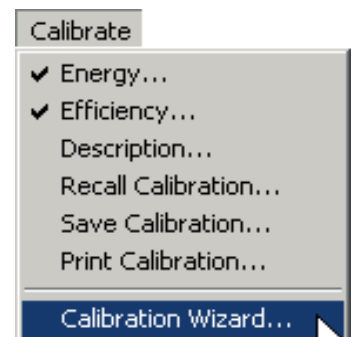
GammaVision-32 V6 provides a wide array of analytical tools to handle any spectral analysis problem with ease — all in a "seamless" design. GammaVision-32 is a fully-functional Windows program for the PC environment to help reduce your costs and increase productivity. The features and functions of GammaVision-32 are intuitive and simple to operate with the click of a mouse. Automating the daily routine is made simple using "Job Streaming." And now, with the high-productivity multi-detector user interface, your daily workload is managed more quickly and with less effort. This version builds on a Time-Tested product with proven capability and enhancements that span over 30 person years of continuous development. The product includes patented True Coincidence Summing Corrections and Auto Calibration, and compatibility with a complete range of electronics and detectors for High-Purity Germanium gamma-ray spectrometry measurements, including advanced digital signal processing electronics, such as the ORTEC DSPec line of products that include patented Zero Dead Time (ZDT) corrections of the DSPec-Plus and the USB interface of the economical DSPec jr 2.0. ORTEC, with GammaVision-32, has continuously lead the way in bringing the innovations and technology advances that are most needed in the field of gamma-ray spectroscopy.



Remote Control Made Easy

Get Connected with CONNECTIONS-32

All ORTEC spectroscopy hardware is supported within the CONNECTIONS-32 architecture, with the entire sample analysis process controlled from a single screen, and remote PC workstations controlling, analyzing, and scrutinizing data collected in the counting room. GammaVision-32 V6, a true 32-bit implementation, operates securely, either standalone or networked under Windows 98/2000/XP.



Analysis Engines Tuned for Applications

GammaVision-32 employs time-tested application-specific analysis engines for meeting any gamma-ray measurement challenge. Rather than using a single method to analyze different types of samples, GammaVision-32 includes four separate algorithms designed to handle even the most complex analysis applications. All the flexibility that you need at your fingertips!

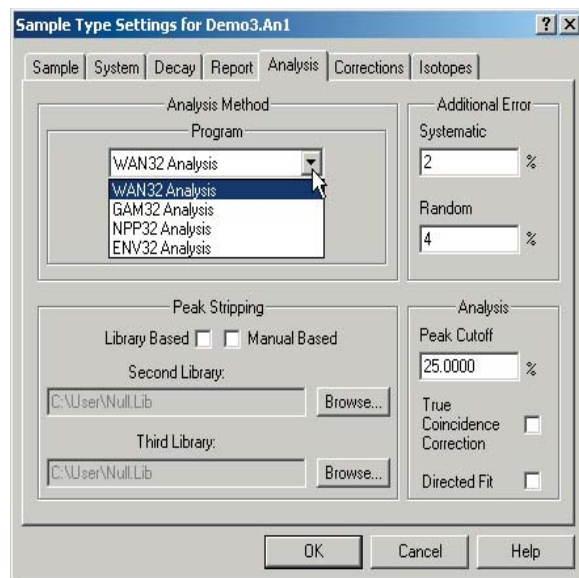
GammaVision-32 Analysis Engines

WAN32 The original GammaVision-32 engine using library-directed peak search for general purpose and research-type spectral data.

GAM32 Mariscotti-type peak search for "pre-filtering" large libraries to reduce false positives in environmental samples.

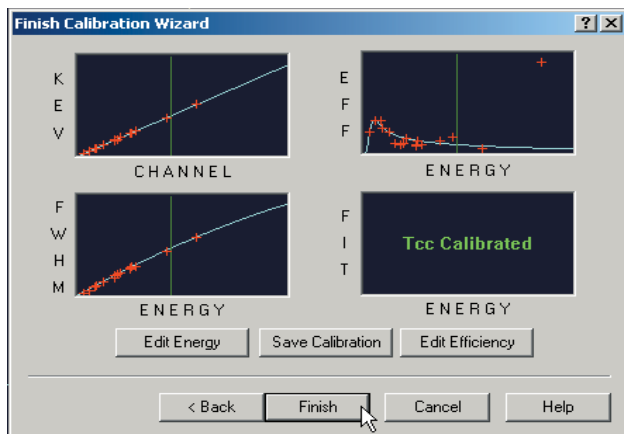
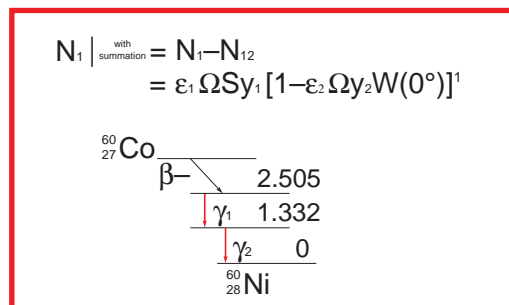
NPP32 Library-directed peak search with comprehensive peak identification matrix for accurately determining quantitative results from complex spectra (specially designed for fission product analyses of samples commonly found in Nuclear Power Plants).

ENV32 Mariscotti-type peak search with "directed fit" for forced peak area determination of singlet and multiplet peak regions. Produces activity (including negative values) and MDA values for every nuclide in a library. Designed specifically for the needs of the environmental-level counting laboratories.



True Coincidence Summing Correction

GammaVision-32 includes not only the time-tested analysis engines described above, but also a patented analysis algorithm to correct for the presence of true coincidence summing effects on spectral data. True coincidence summing (also called cascade summing) refers to the well-known phenomenon in which radionuclides emit two or more photons in succession from a single decay, such as the 1173 and 1332 keV gamma rays in Co-60. The successive gamma-rays are said to be "in cascade." When these cascading gamma rays are fully absorbed by the detector within a time frame less than the resolving time of the detector or electronics, they will "appear" to have an energy equal to their sum (2505 keV in this case). This summing causes a peak to occur at 2505 keV rather than at 1173 and 1332. This results in (1) a loss of counts in the peaks and thus an underestimation of the true activity for Co-60 in the sample, and (2) another peak in the spectrum to be identified. GammaVision-32 corrects for true coincidence summing using a simple calibration that you can accomplish during your normal calibration process. You need only a calibration source including nuclides that produce the coincidence summing effect, GammaVision-32 does the rest!



GammaVision[®]-32 v6

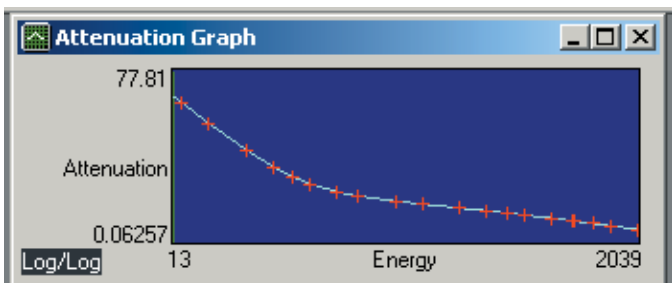
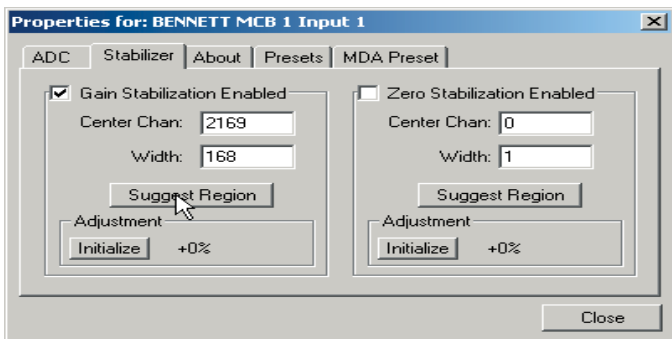
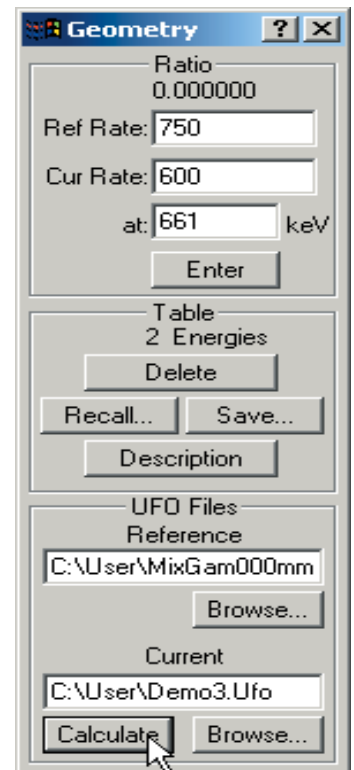
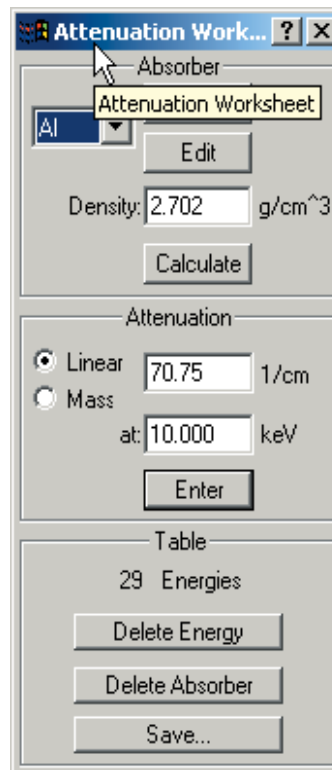
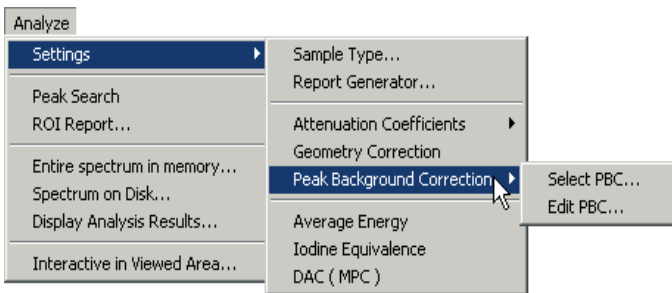
Gamma-Ray Spectroscopy Software

This means that isotopes with coincidence sum peaks such as Co-60, Eu-154, and Cs-134 can now be accurately determined through the use of a simple calibration process and a comprehensive coincidence library applied to every spectral analysis. Simply check the "TCC" box in the analysis settings and GammaVision-32's algorithms will apply the correction factors to the results.

Easy Corrections for Any Spectral Distortion

Several correction routines to deal with distortions in the sample spectrum are provided:

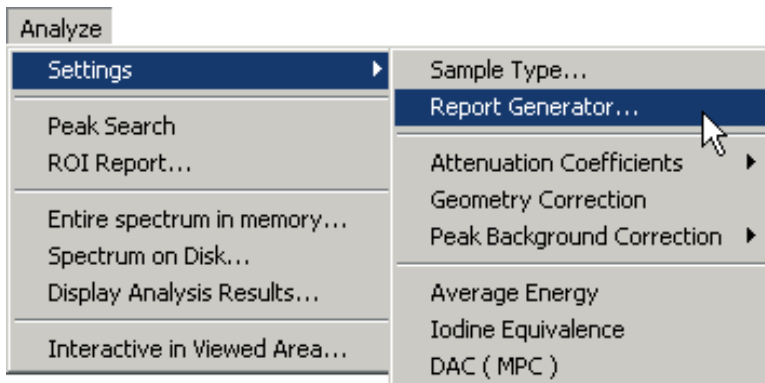
- Peaked Background Correction (presence of a sample nuclide in the spectral background)
- Peak Interference Correction for "total overlap" problems — implement automatically or manually, for user-selectable interference corrections
- Attenuation Correction (ANSI N42.14 and ASTM E181–82 compliant), using a materials database of absorption coefficients of materials; alternatively, a standard absorber may be used to produce the absorption calibration curve
- Geometry Correction, allowing multiple sample geometries to be referenced to a single standard



Correct for it . . .
with GammaVision-32

Reports the Way You Need Them

GammaVision-32 includes a variety of detection limit formalisms, regulation-derived calculations, and reporting formats, including the ability to provide custom report formatting. A "directed fit" option permits reporting negative activity values if calculated, as required in some effluent situations. The standard GammaVision-32 reports are in simple text format that can be read into LIMS information databases or otherwise manipulated easily. Add the Report Writer option to incorporate an MS Access™ database for data storage and powerful Seagate Crystal Reports™ (A44-B32, Report Writer) into your reporting procedures. Crystal Reports are versatile, flexible, and can be modified to meet your needs.



GammaVision v6 **Gamma-Spectroscopy Analysis Report** ORTEC
 801 S. Illinois Ave.
 Oak Ridge, TN 37830
 11:45:24AM 4/18/2003

Analyst: ORTEC **Sample** Spectrum #1 Analysis #1
 Sample Name: Gamma_Sample Sample Volume : 2.00L
 Sample Type: Sample Lab Preparation: 8/13/2001 5:16:21PM
 Sample Collection Date: 8/13/2001 5:16:21PM
Customer Info Client Name: Demo Company
 Description: Demo Description **Acquisition** Calibration Name: Demo 5 - Initial
 Calibration Date: 8/13/2001 3:33:58PM

***** IDENTIFIED PEAK SUMMARY *****
Nuclide Peak Channel Centroid Energy Background Counts Net Area Counts Intensity Cts/Sec 1 sigma Uncert % FWHM keV
Cs-137 44.23 36.26 29517. 0. 0.000 0.00 1.057
Cd-109 148.96 88.03 396840. 0. 0.000 0.00 1.084D
Co-57 217.78
Co-57 246.84
Sn-113 487.91
Hg-203 536.48
Sn-113 763.98
Y-88 1004.62
Cs-137 1309.81
Cs-137 1594.00
Y-88 1787.85
Co-60 2344.32
Co-60 2666.44
Y-88 3685.10

***** SUMMARY OF LIBRARY PEAK USAGE *****
Nuclide - Average Activity Becquerels Energy keV Peak Activity Code MDA value Becquerels Comments
Cd-109 0.0000E+00 88.03 0.000E+ 22.16 0.000E+ 24.94 0.000E+
Co-57 0.0000E+00 122.07 0.000E+ 136.43 0.000E+ 14.41 0.000E+
Co-60 3.5645E+03 1173.24 3.555E+ 1332.50 3.574E+
Cs-137 3.0630E+03 661.66 3.063E+ 32.19 0.000E+ 31.82 0.000E+ 36.40 0.000E+ 802.00 0.000E+

***** SUMMARY OF NUCLIDES IN SAMPLE *****
Nuclide Time of Count Activity Bq Time Corrected Activity Bq Uncertainty Counting 1 sigma
Cd-109 < 1.8954E+02 2.2387E+02
Co-57 < 8.0451E+00 1.0690E+01
Co-60 3.5645E+03 3.7100E+03 1.9432E-01%
Cs-137 3.0630E+03 3.0845E+03 2.6807E-01%
Hg-203 5.4061E+02 2.8202E+03 5.5184E-01%
Y-88 3.5672E+03 7.3466E+03 3.0808E-01%
Sn-113 1.7925E+03 3.4997E+03 3.1633E-01%

< - MDA value printed.
 A - Activity printed, but activity < MDA.
 B - Activity < MDA and failed test.
 C - Area < Critical level.
 F - Failed fraction or key line test.
 H - Half-life limit exceeded

***** SUMMARY *****
Total Activity (34.2 to 1966.9 keV) 1.2527937E+04 Bq
Total Decayed Activity (34.2 to 1966.9 keV) 2.0461029E+04 Bq

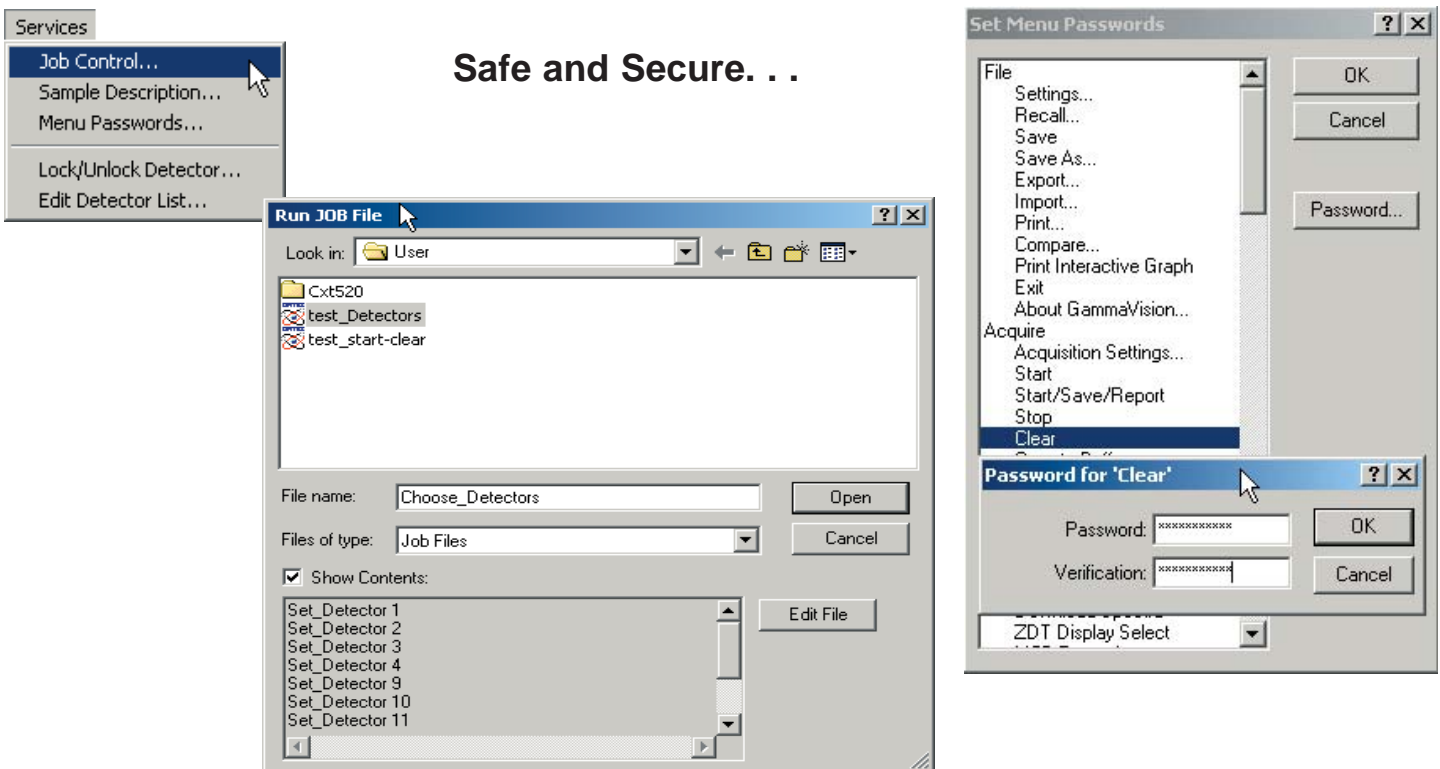
Reports made your way. . .
 with GammaVision-32

Seamless Compatibility

ALL ORTEC "multichannel buffer" hardware (all 26 types from circa 1983 on) is supported. This means compatibility with the DSPec line of products (DSPec, DSPec Plus and DSPec jr 2.0), as well as the rugged and portable digiDART. In addition, GammaVision-32 supports the LANL M³CA, Rossendorf MiniMCA-166 and ORTEC TRUMP-PCI interface card.

Single-Click High-Productivity Operation with Password Protection

For the "production environment" where large numbers of similar samples must be processed, the acquire/store/analyze sequence may be reduced to simply clicking an icon by the use of the built-in .JOB facility. This may be made highly secure by the use of the MultiTasker-32 option (A45-B32 V2), which gives GammaVision-32 "one click" procedures from pre-configured, but fixed, user-entry screens. Password protection can secure both operator menus and access to hardware controls.



Automate with GammaVision-32 "Job Streams"

Self-Calibration! Really?!

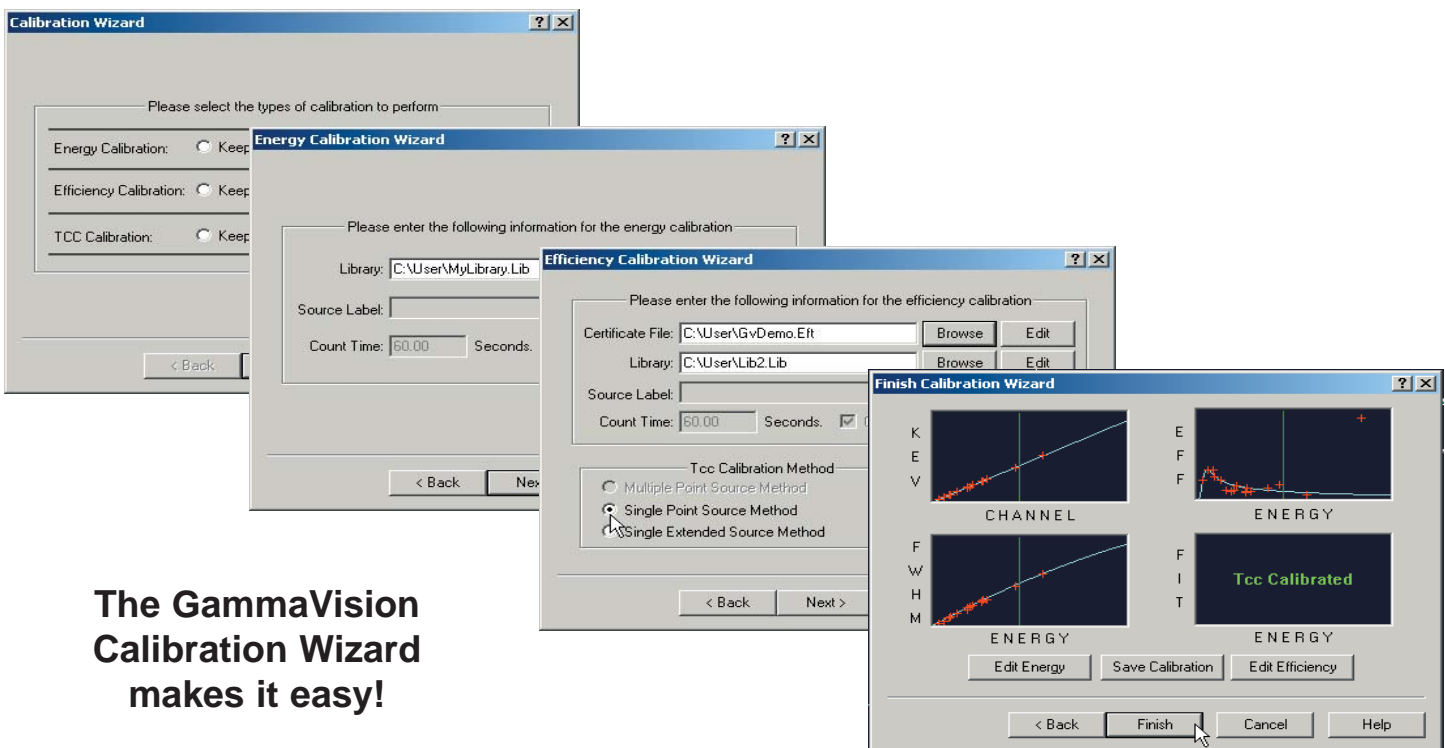
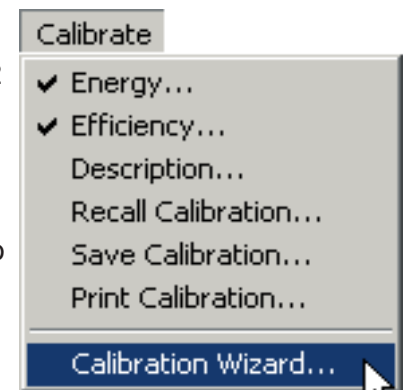
The process of routinely calibrating detectors with GammaVision-32 has developed into an extremely simple operation, for both first-time calibration and recalibrations. In fact, ORTEC's patented method (U.S. Patent No. 6,006,162) allows the initial energy/shape calibration to be totally automated regardless of the hardware settings. The only input required is a library, representative of the calibration constituents and the calibration spectrum. No longer need you adjust the gain to be "approximately correct!"

Calibration Wizard Automates the Calibration Process

How has GammaVision-32 simplified the calibration process? GammaVision-32 comes complete with a step-by-step calibration wizard with integrated certificate file editor. This means that the process of performing an efficiency calibration has now been simplified even more; just fill in a few dialog boxes and GammaVision-32 does the work. Automation of both standard calibrations and True Coincidence Correction calibrations allows even first-time operators to perform the task error free.

For manual or automatic energy or efficiency calibration, operator viewing of the calibration fit to the data provides clear assurance that the calibration is valid.

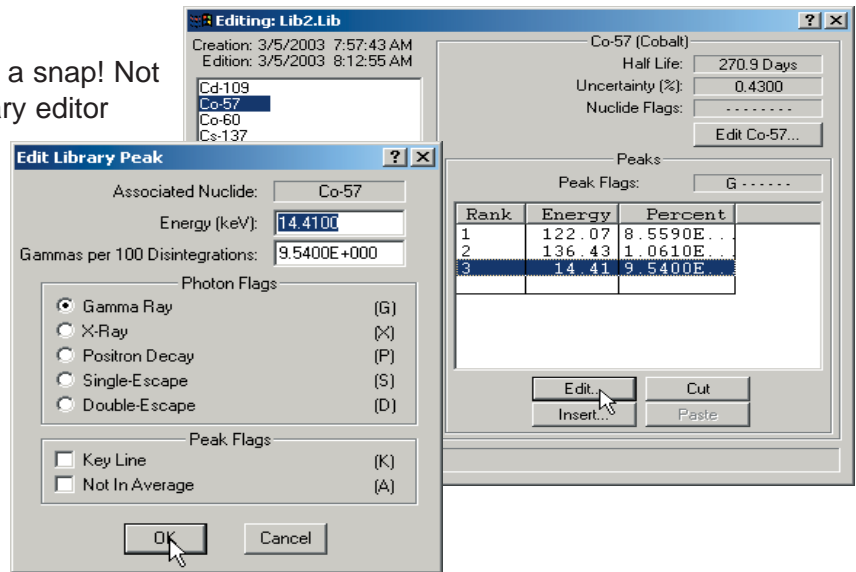
In the case of efficiency calibration, flexibility of fit method means that a wide variety of sample types may be accurately calibrated. Efficiency recalibration may be totally automated from stored standard-source data files.



**The GammaVision
Calibration Wizard
makes it easy!**

Analysis Library Manager

With GammaVision-32, managing libraries is a snap! Not only is there a full-featured nuclear data library editor included with the software, but you may also choose the optional Nuclide Navigator III. The GammaVision-32 library editor allows you to cut and paste nuclides and peaks from master libraries, add flags to individual peaks for identification (single escape peak, x-ray, or other) and analysis (key line or exclude from activity calculation), and save the library as any name. In addition, GammaVision-32 also includes full integration of the Nuclide Navigator III library tool (sold separately as model C53-B32). GammaVision-32 will (1)



(2) start Nuclide Navigator III if installed, (2) read the Nuclide Navigator III libraries in Microsoft Access Database format (no conversion necessary), and save libraries in database format for use by Nuclide Navigator III. The Nuclide Navigator III option is required for incorporation of the True Coincidence Summing correction method.

Zero Dead Time Analysis with Error Propagation

Are you counting high activity samples where the count rate changes rapidly during counts? GammaVision-32 is compatible with the unique DSPec-Plus, which implements the patented Zero Dead Time (ZDT) technology (U.S. Patent No. 6,327,549).

The ORTEC DSPec-Plus is the first instrument to utilize a completely digital ZDT method for loss free counting (LFC) that is fully automatic and also gives the uncertainty for each channel in the ZDT spectrum. The innovative technology in this method allows ZDT to be used in any spectroscopy system by operators of any experience level. The time you save and the improvement in data integrity that can be achieved through use of the ZDT method can have significant benefits for your radiochemical and process-monitoring spectroscopy systems. No other LFC method gives you the ability to calculate uncertainty on your results.

Why Do I Need ZDT Corrections?

In the past, dead time losses during data collection, due to pulse processing in the electronics, were inherent to gamma-ray spectroscopy systems. Several methods have been developed to recover from dead time losses. These include live-time clocks and loss-free counting. The live-time clock (LTC) extension technique (where the counting time is extended to compensate for the lost counts) gives accurate results for samples where the total count rate (dead time) is constant during the measurement. The Harms-Westphal loss-free counting (LFC) method gives better results than LTC when the counting rate varies significantly during the acquisition period. However, this LFC method does not give the uncertainty of the spectral counts. Thus, the analysis of the spectral data with uncertainty calculations can't be done. In addition, the Westphal implementation of LFC requires calibration by the user and often needs re-adjustment. The ZDT method from ORTEC overcomes these shortfalls and surpasses all previous solutions to dead-time losses for spectroscopy applications.

Specifications

General

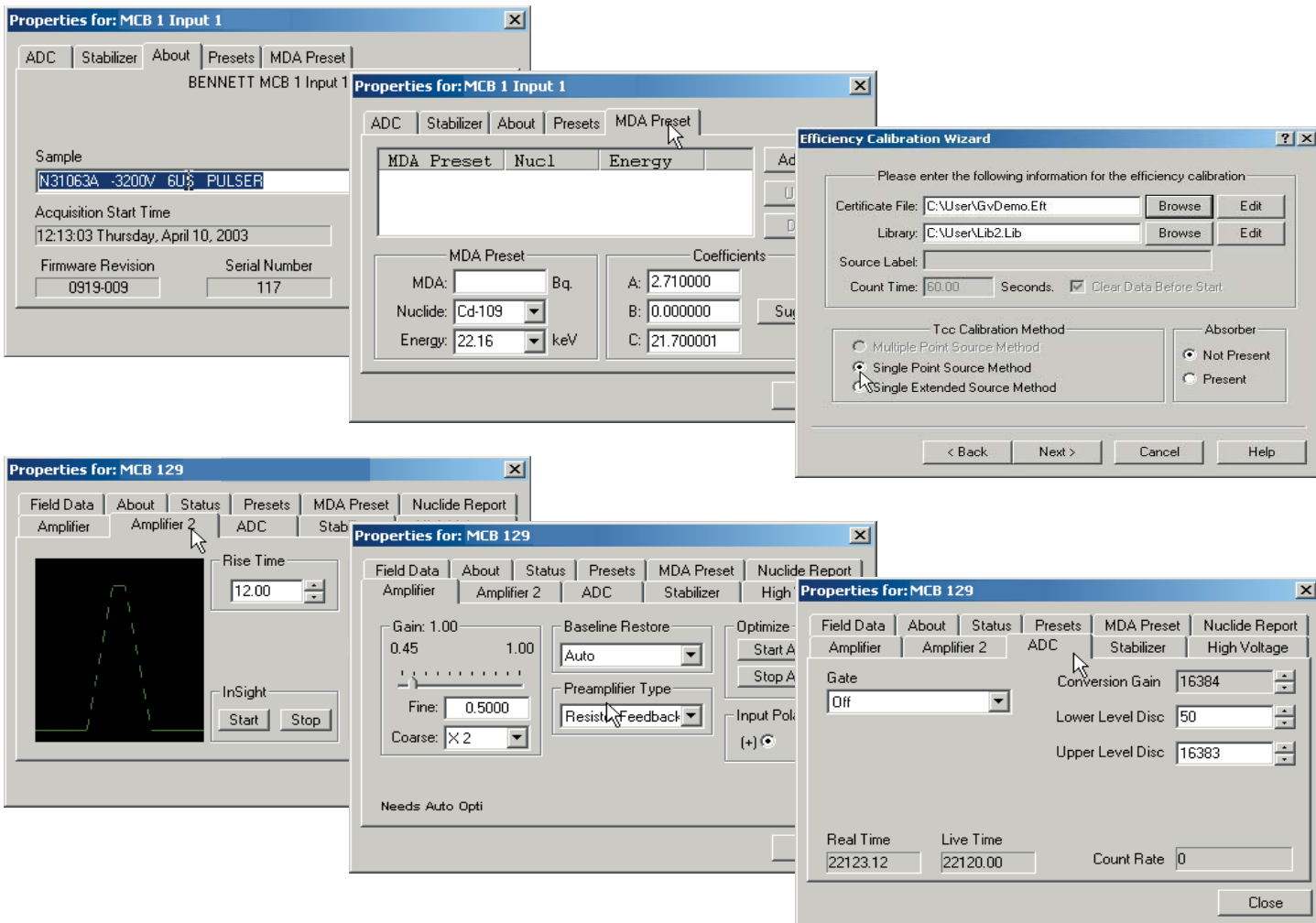
GammaVision-32 Integrates acquisition control, "Smart" MCA and quantitative analysis functions for use in conjunction with PC-based gamma spectroscopy workstations. On-line help and Operator Menu password protection are included.

Operating Systems

Windows™ 98, 2000, XP network capabilities; support for preemptive multitasking; and ORTEC CONNECTIONS-32 compliant.

Spectroscopy Hardware Support

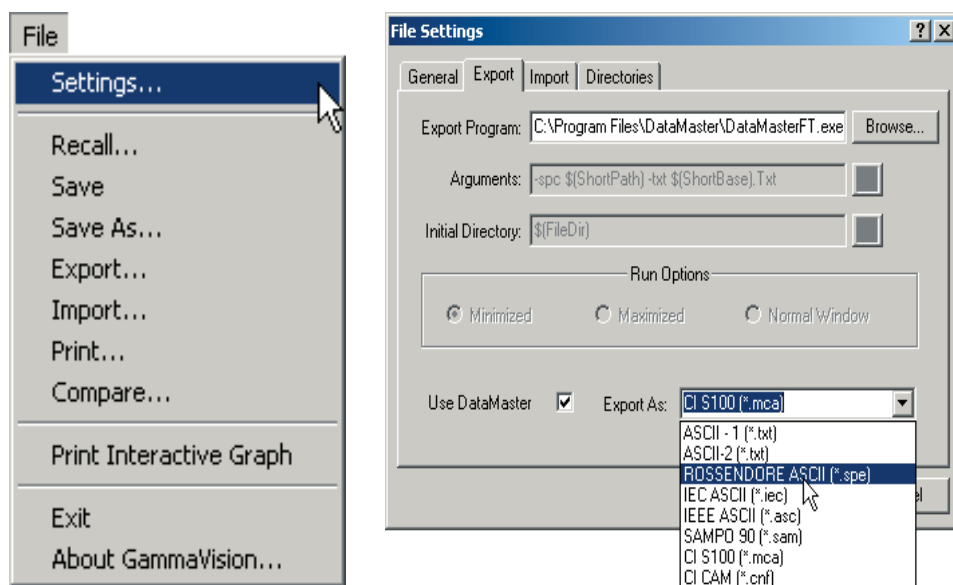
All ORTEC MCBs (past and present) and all other devices supported by ORTEC CONNECTIONS-32 (see CONNECTIONS-32 literature). Built-in support for advanced operations (where supported in hardware): amplifier gain/shaping control, Auto-PZ, DSPec "optimize" and InSight™ mode, SMART-1 detector, graphical setting of MCB spectrum stabilizer and statistical uncertainty peaks. Detector Locking password protection is supported.



File Formats Supported

ORTEC .SPC and .CHN are supported as standard in file save, recall, and compare functions. Most non-ORTEC file formats are supported by loadable modules, in a "set and forget" fashion for save and recall. Check for availability of specific modules.

Optional DataMaster spectrum file import/export software can be added for easily converting and reading any spectrum format.



Semi-Quantitative "Smart" MCA Functions

"Instant" Mariscotti peak search, with ROI marking and "nearest match" suspected nuclide identification.

Net/Gross peak areas with uncertainty calculation, peak centroid, and shape

- Spectrum Strip
- Spectrum Smooth
- Spectrum Compare

Quantitative Analysis Methods

Default Mode

Peak search by library direction for specified nuclides, plus Mariscotti peak search for non-specified nuclides, referenced to "suspected nuclides" list. Recommended for routine samples; lowest detection limits.

Automatic

Isotope Identification Mode. Mariscotti peak search followed by library peak qualification and reanalysis based on reduced library. Recommended for unknowns. False-positive-resistant.

Interactive Reanalysis Mode

Iterative refitting of multiplets, addition or deletion of deconvolution peak centroids, adjustment of energy calibration with visual display of residuals. Recommended for the most complex analysis problems.

Deconvolution Method

Both peak finder AND library are used to direct the deconvolution process. Automatic recalibration of Energy/Channel based on identified peaks where possible.

Background Methods

Wide range of background methods: automatic, multi-point, parabolic, directed fit, and stepped. Selection by user or automatically applied to improve analysis results.

Multi-Peak Activity Averaging

Peaks are averaged on the basis of their relative abundance in the nuclide to produce the lowest possible uncertainty in the calculated activity.

Detection Limit Formalisms

- ORTEC MDA
- ORTEC Critical Level
- No MDA (report zeros if less than MDA)
- KTA MDA
- Detection Limit 2 sigma—Japan
- Detection Limit 3 sigma—Japan
- Currie Limit
- RISO MDA
- ORTEC LLD
- Peak Area
- Air Monitor—Gimrad method
- Nureg 4.16 Method
- Counting Lab—USA
- DIN 25482.5 Erkennungsgrenze
- DIN 25482.5 Nachweisgrenze
- GTN5/CEA/EDF (France)
- NUREG 472

"Directed Fit" Reporting of Negative Activities

User-selectable alternative method of calculating and reporting of small peaks which can result in negative peak areas (and negative activity values). The use of negative activities is useful in complying with regulations on environmental releases.

Decay Corrections

- Decay correct to any date/time, either back or forward
- Decay corrections for losses during acquisition
- Decay during sample collection

Spectral Corrections

- Peaked Background Correction
- Geometry Correction
- Absorption Correction ANSI N42.14 and ASTM E181–82 compliant from materials database, and/or from physical standards
- Random Summing (high-rate counting losses)
- True Coincidence Summing Correction
- Library-Based Peak Interference Correction

Reporting

Choose any ORTEC standard report option:

- Unknown peaks
- Library peak list by energy
- Library peak matrix by isotope
- Activity summary

Uncertainty reporting options:

- Percent or activity
- Counting or total
- 1, 2, or 3 sigma
- Propagation of additional systematic or random uncertainties

Derived quantity Isotope reporting:

- Average Energy (EBar), to TID 14844
- Iodine Equivalence, to TID 14844
- DAC (maximum permissible concentration)

Totally custom reporting:

- From Access-compatible results database, and/or via optional A44-B32 Report Writer.

Calibration

Energy Calibration:

- Multi-point, quadratic for energy and FWHM
- Automatic Energy Calibration (U.S. Patent No. 6,006,162)

Efficiency Calibration fit options:

- Single Function Polynomial
- Interpolative
- Quadratic above or below user-set "knee"
- Linear above or below user-set "knee"
- TCC polynomial

QA and Flexible Reporting Ensure Regulatory Compliance

The latest Quality Assurance features combined with the capability of reporting in a wide variety of limit-of-detection formalisms make regulatory compliance easy. All hardware parameters are saved with the spectral data to ensure traceability.

Quality Assurance

Complies with the demands of ANSI N13.30 and for each detector allows tracking of:

- Total detector background
- Total (decay corrected) activity for all calibration nuclides
- Average FWHM ratio (spectrum to calibration standard)
- Average FW1/10M ratio (spectrum to calibration standard)
- Average peak shift from library values
- Actual peak centroid energies

Automation Features

- Multiple detector Start/Stop/Clear functions for up to 8 detectors
- Extensive built-in Job Streaming (Macro language), allowing "one-click" analysis from a user-built icon.
- MultiTasker-32 (option A45-B32 V2).

Developer's Support — "Step In" and "Step Out" With Your Own Programs. Use GammaVision-32 and Your Own Custom Programs with ORTEC MCBs.

A11-B32 CONNECTIONS-32 Programmer's Toolkit with ActiveX™ Controls

The *CONNECTIONS-32* Programmer's Toolkit is a set of software modules that simplifies the task of accessing the ORTEC *CONNECTIONS-32* hardware when custom software is written. This toolkit offers such a large improvement in programming efficiency that the ORTEC programmers all use it to write the standard ORTEC software. The toolkit is for use with 32-bit applications running under Microsoft Windows 98, 2000, and XP.

The toolkit has two options for programming. For programmers familiar with Dynamic Linked Libraries (DLLs), it provides DLLs and supplemental Windows applications programming interfaces, which can be called from C, C++, or Visual Basic. For programmers using ActiveX Controls, all the functionality can be accessed more conveniently through ActiveX methods, properties, and events. The ActiveX capability makes it easy to program the ORTEC products from LabVIEW (Version 5.1 or later), Visual C++, and Visual Basic. Simple example programs are supplied with both programming options.

The ORTEC models use a variety of interface options such as plug-in ISA and PCI bus cards, dual-port memory interfaces, printer ports, and direct Ethernet connections. A11-B32 supports all of these hardware interfaces. It also supports the LANL M³CA and Rossendorf MiniMCA-166 hardware via the serial port. A11-B32 performs all of the network communication, and supports multiple protocols. The application program uses the same interface for local and remote hardware. Special features, such as gain stabilization, are under complete control of the application program. A11-B32 is transparent to the commands specific to the application program. Complete error reporting is provided for ease in diagnosing programs.

An automatic configuration program is included. The program will search the network for hardware and produce a list, including the hardware type and the PC node to which it is connected. Also included is a Hardware Server program for remote access to the hardware.

A11-B32 is used by all the programs in the *CONNECTIONS-32* family of ORTEC software. Properly written applications using A11-B32 will be able to run concurrently with these ORTEC programs. It is not necessary for ORTEC programs to be running in order for A11-B32 to operate.

ORTEC and user-written software may be profitably combined by having the ORTEC standard software setup and calibrate the hardware, followed by implementation of the special operations of your program. For example, MAESTRO[®]-32 or GammaVision-32 can be used to configure the system and perform most of the interactive functions. Your program can step in to handle the other unique functions of the system.

The run time components of A11-B32 may be included on a royalty-free basis for programs written to support operation of ORTEC hardware.

A12-B32 UFO/SPC Results Toolkit

Like the A11-B32 Toolkit for controlling instruments, the Analysis Results Programmer's Toolkit (A12-B32) provides 32-bit Dynamic Link Libraries (DLLs) of functions which can be used to create custom programs to interface with the spectrum and analysis results files used by GammaVision-32 for the analysis of gamma-ray spectra from germanium detectors. The data collection can be controlled from the user program or by GammaVision-32 itself. The analysis is done by the WAN32 or other analysis engine of GammaVision-32. A useful combination of ORTEC and user-written software would be to use the ORTEC software to set up and calibrate the MCBs and then implement the special operations in a user-written program. For spectroscopy applications it is expected that MAESTRO-32 or GammaVision-32 will be used to configure and perform most of the interactive system functions. User-written programs can then perform any other system functions. Support and examples are given for Microsoft C and Visual Basic, both of which are supported for Windows 98, 2000, and XP.

A44-B32 Custom Report Writer Option

GammaVision-32 continues to support the use of Crystal Reports and Access Databases. The Report Writer option comes with an Access report compatible database that allows you to create queries or custom reports using Crystal Reports or MS Access. Simply and quickly.

System Prerequisites

Operating Systems

As a *CONNECTIONS-32* product, GammaVision-32 V6 requires a Windows 98, 2000 or XP platform. Interfacing of MCB hardware to the system may be by Ethernet, printer port, serial port, or ORTEC Dual-port Memory. (Check hardware literature for details).

Computer

Required

486 MHz (Pentium processor enhances performance), 16 MB RAM, and 250-MB hard disk are the minimum PC requirements.

Recommended

A Pentium IV processor, 128 MB RAM, and at least 1 GB hard disk are recommended.

Ordering Information

Model	Description
A66-B32	Single-User Copy of GammaVision-32
A66-G32	Documentation for A66-B32
A66-K32	Upgrade from A66-BI to A66-B32
A66-K32-D	Upgrade from A34-BI or B30-BI (DOS) to A66-B32
A66-N32	Network Copy of A66-B32 (Prerequisite: First licensed copy of A66-B32)
A66-U32	Update of for A66-B32

Options

A11-B32	<i>CONNECTIONS-32</i> Programmer's Toolkit with ActiveX™ Controls
A12-B32	Analysis Results File (UFO) Toolkit
A44-B32	Custom Report Writer Option
A45-B32	MultiTasker-32 Option
A49-B32	DataMaster
C53-B32	Nuclide Navigator® III

GammaVision[®]-32 v6

Gamma-Ray Spectroscopy Software

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