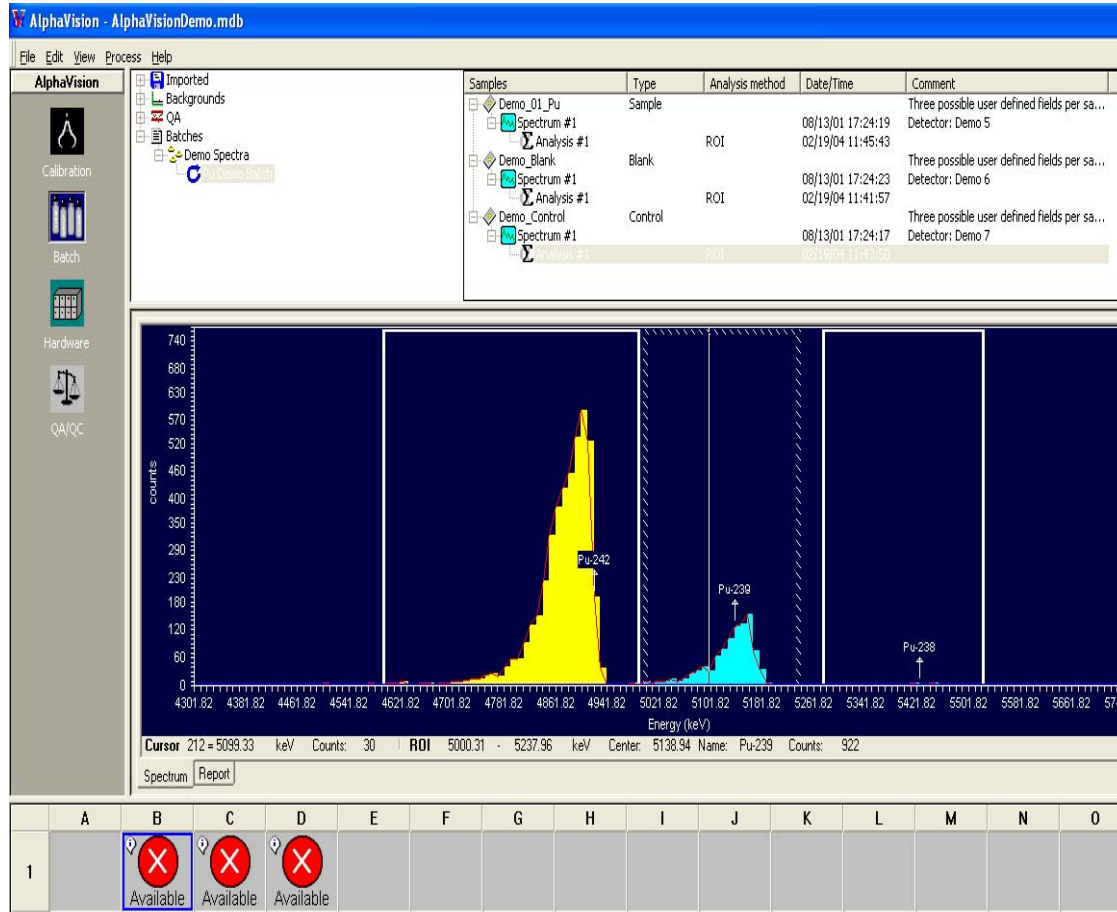
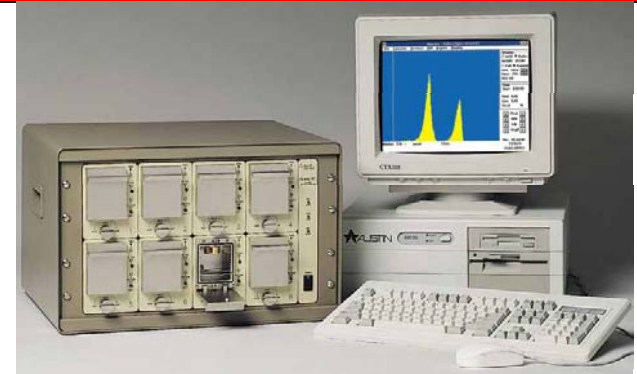


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AlphaVision-5.3



*Integrated,
Ethernet-
connected alpha
spectrometers*

*32-bit software
for Windows 2000
and XP
Professional*

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Alpha Vision 5.3

What makes us the best????
We are the cutting edge!!!!



Introduction

➤ Craig Maddigan

➤ Technical Support Specialist

➤ Education

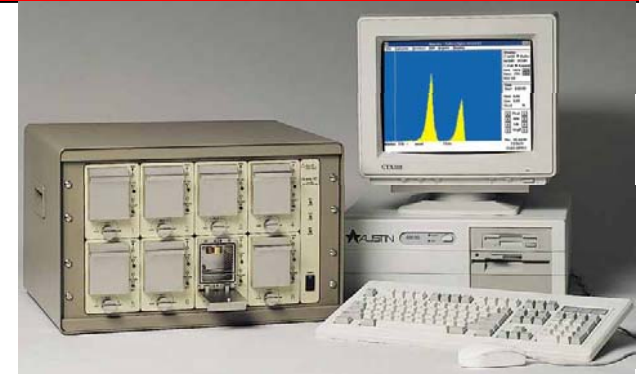
- Associates in Liberal Arts/Science (Chem. Tech)
- Bachelors in Chemistry

➤ Experience

- Ametek/Ortec ~ 3 month
- West Valley Nuclear Services (WVDP) DOE
 - 7 years radiochemistry technician
 - 6 years Laboratory Operations Supervisor
 - 7 years Senior Scientist (Radiochemistry)

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AlphaVision-5.3



Name	Activity (D...)
Np-237	201.56
Cm-244	186.50
Gd-148	189.62

Calibration Source Name: Calibration Demo
The certificate date: 5/17/2001
Max. Peak Mismatch: 100 (keV)

Name	Status	Date	Shelf	Cal. Source	Initial	Active	Gain	Offset	Quadratic	Efficiency
Demo 7 - Initial	Completed	13-Aug-2001 15:34:46	0	Calibration Demo	Yes	<input checked="" type="checkbox"/>	9.9019 +/-	3000.1202 +		0.1802 +/- 0.0025

What makes AV 5.3 the most comprehensive tool for the alpha spectroscopist?

Ease of Calibration

Convenient Calibration Wizard

The image displays two windows from the ORTEC Calibration Wizard software. The 'Test' window on the left is titled 'Energy/Efficiency Calibration Setup' and contains various configuration options. The 'Nuclide Library' window on the right shows a list of available libraries, with 'Real Standard' selected. Three callout boxes are overlaid on the windows: 'Choose Setup Parameters' points to the 'Set' button in the 'Test' window; 'Choose a library' points to the 'Real Standard' library icon; and 'Click OK' points to the 'OK' button in the 'Nuclide Library' window.

Test Window - Energy/Efficiency Calibration Setup

Standard Nuclide Library
Name:

Method/Algorithm
 Auto Manual
 Linear Quadratic

Calibration Fit
 Maximum χ^2 :
 Lib. Peak Thres.: %

Initial Calibration Calculate Efficiency
 Decay Correction Set as Default

Manual/Auto Verification of Results
 Gain: Offset: Efficiency:

Peak Search and Fit

Nuclide Library Window - Available Libraries

Standard 1 Standard 2 **Real Standard**

Standard
The certificate date: 8/11/00

Nuclides Defined

	Activity (DPM)
Am-241	124760.00
Cm-244	91807.00
	99427.00

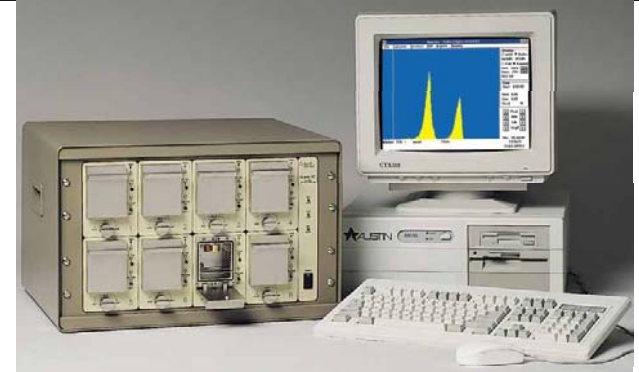
Simple Set Up - Intuitive Screens

Calibration

- Choose a library or customize a library
- Enter data about your calibration standard
- Acquire the spectrum using the wizard.
- Evaluate the results.

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AlphaVision-5.3



AlphaVision - AlphaVisionDemo.mdb

File Edit View Process QA Help

AlphaVision

Calibration
Batch
Hardware
QA/QC

Detectors Control Sample Reagent Blank Tracer Peak Width Chemical Recovery

Detectors		Min (Error)	Low (Warning)	High (Warning)	Max (Error)		
Demo 5	<input type="checkbox"/> Total Background:	0.00000	0.00000	0.00000	0.00000	cps	Calculate Limits
Demo 6	<input type="checkbox"/> Isotopic Background: <input type="text"/> ...					cps	Calculate Limits
Demo 7	<input checked="" type="checkbox"/> Calibration Energy:	4000.00000	4500.00000	5000.00000	5500.00000	keV	Calculate Limits
	<input checked="" type="checkbox"/> Calibration Efficiency:	15.00000	17.00000	19.00000	21.00000	%	Calculate Limits
	<input checked="" type="checkbox"/> Pulser Center:	150.00000	200.00000	250.00000	300.00000	channel	Calculate Limits
	<input checked="" type="checkbox"/> Pulser Width:	10.00000	15.00000	20.00000	25.00000	keV	Calculate Limits
	<input type="checkbox"/> Detector Bias:	0.00000	0.00000	0.00000	0.00000	V	Calculate Limits
	<input type="checkbox"/> Chamber Pressure:	0.00000	0.00000	0.00000	0.00000	mT	Calculate Limits

Apply Changes

Limits Chart Report

What makes AV 5.3 the most comprehensive tool for the alpha spectroscopist?

QA/QC

QA/QC

- AV 5.3 tracks and reports all crucial QA/QC parameters for alpha spec.
- Setting Limits is a breeze.
- Custom charts enhance analytical review of data points.
- Custom reports assist technicians, scientists, QA officers and Data Validators alike.

ORTEC Why is Batching Important ?

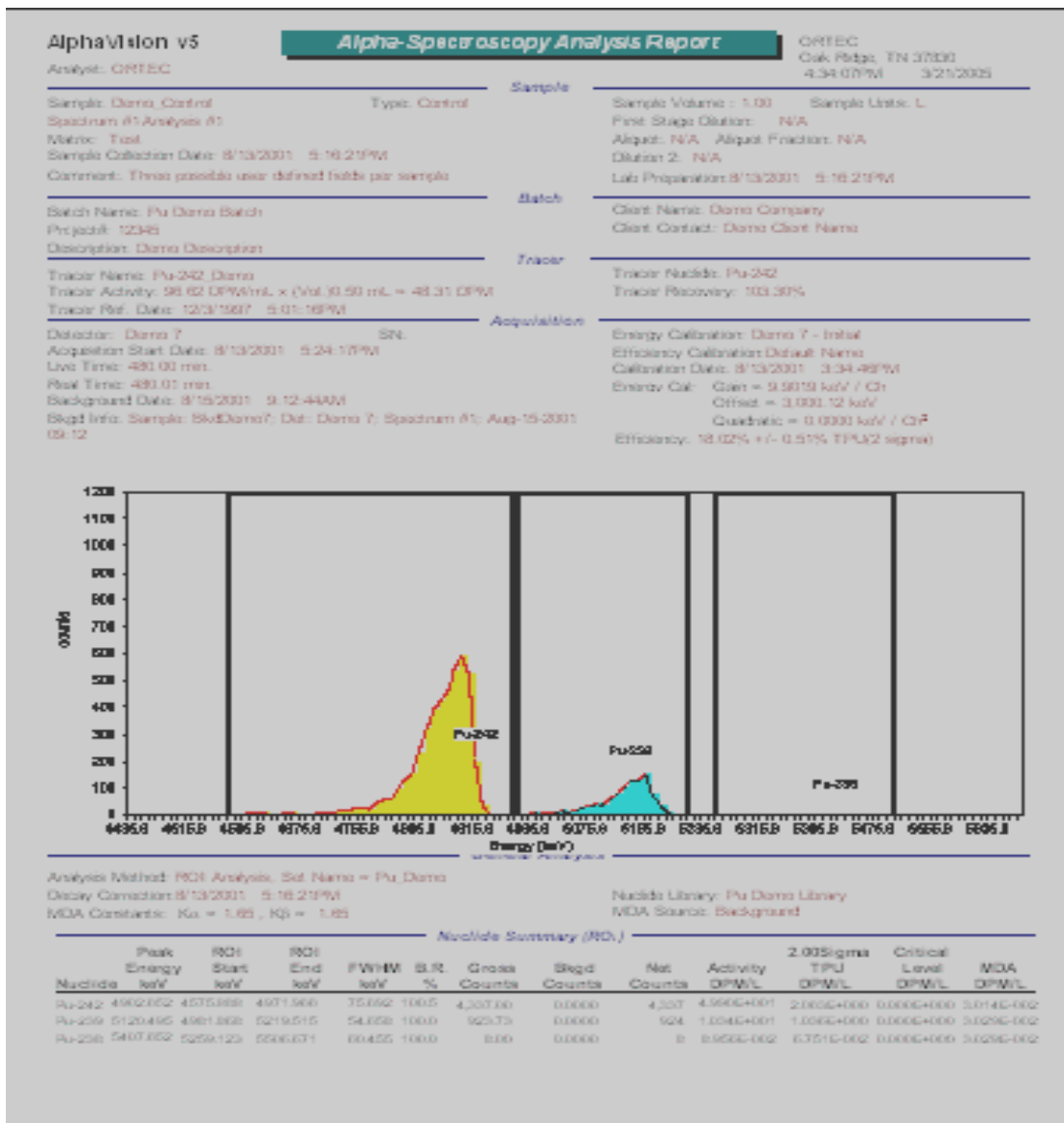
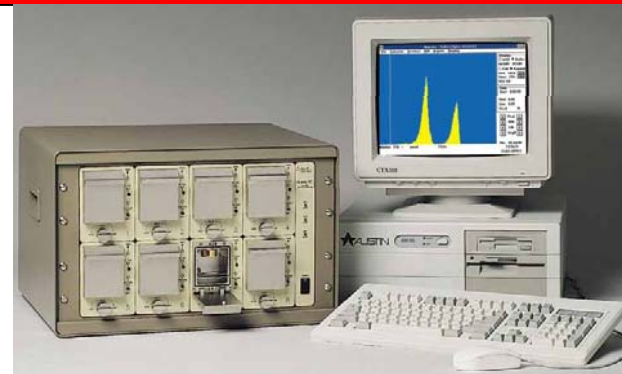
- Preps for alpha spec are destructive to the sample and time consuming.
- Unlike gamma, alpha spec requires sample preparation.
- Gamma spec can use larger samples.
- Alpha spec can require longer count times.
- In order to do alpha spec on sample, it is often split into five sub-samples. (Np, Am/Cm, U, Pu, Th)....
More count time.
- Np samples require gamma counting too

Batching

- Batching is necessary in alpha spec.
- AV easily retrieves sample data from LIMS.
- AV data is readily available for transfer to LIMS.
- Batches can be established while lab work is ongoing... saving time.

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AlphaVision-5.3



What makes AV 5.3 the most comprehensive tool for the alpha spectroscopist?

Ease of Reporting

AlphaVision Reports

Standard Reports

- Calibrations
- Backgrounds
- Pulsers
- Sample Analysis
- QA/QC

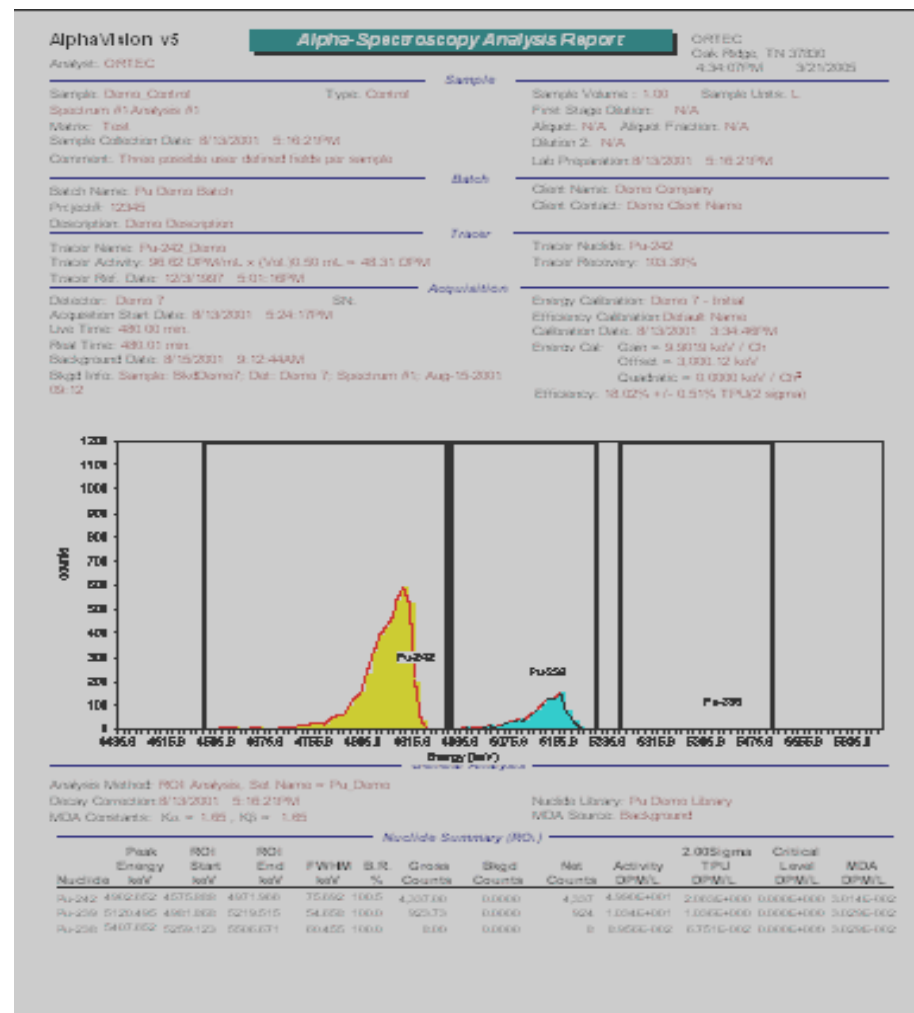
Customizable Crystal Reports Format

One-page design with spectrum

ROI Markers

Nuclide Identification

Export to network directories

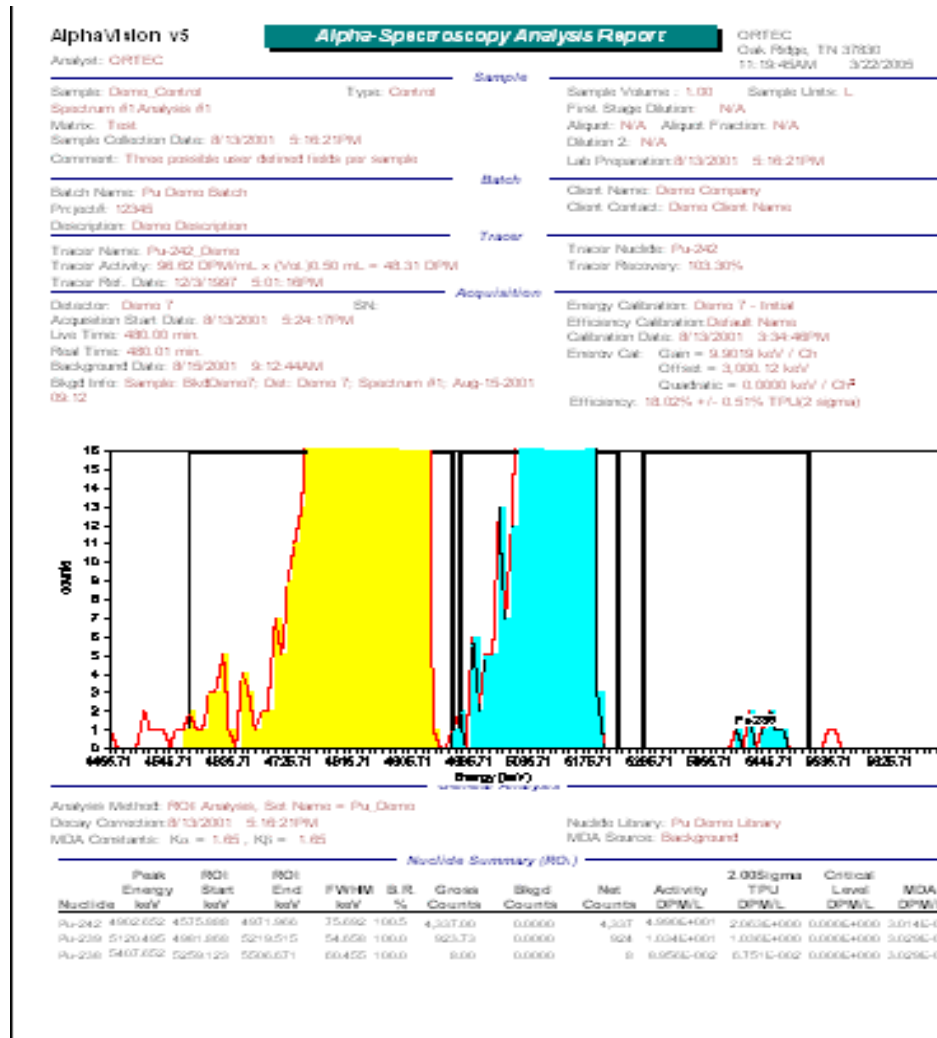


Customize reports with Crystal Reports.

Reporting

- Standard AV Report is a careful compilation of relevant sample data.
- Or send data to your own report template(s).
- Zoomed in or partial spectra are easily displayed on the report.
- Multiple useful ways to export the data
- Easily refined QA/QC reporting

Reporting



Applications

- Electroplated Sources
- Air, smear, dried/flamed water samples
- Hydroxide & Fluoride preps from radiochemical methods.

Alpha Vision Flexibility

- Compatible with Oxford OASIS hardware
- With AV and an Octete, you have 8 detectors plus 8 additional inputs for other alpha detector hardware.
- Count to time or MDA.
- Add more time without recounting.
- Interim Analysis
- You want options???

Alpha Vision Flexibility

- LIMS, Libraries, Calibrations, MDAs, Tracers, Analysis Methods, Blank Subtractions, Backgrounds, Units, Uncertainty, Decay-correction, QCs, Search Engine, Result Calculation, Reporting.....All of these topics and their parameters, and many, many more are flexible! All useful options are made available at the click of the mouse.

Alpha Vision

What makes us better?

- Aside from the cutting edge, user-friendly, flexible, thoughtful software.....
- Support.
 - EXTRAORDINARY HELP RESOURCE (html type)
 - Accessibility to the designers.
 - Lab experience (20 years lab/alpha spec exp)
 - AV user for six years
 - Forefront of alpha radiochemistry
 - Training on Alpha Vision or Alpha Spec

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Thank You!!!

⌘ From-

⌘ Craig Maddigan and ORTEC!!!