GammAware

3D Radiation Imaging

Features

- ✓ Portable 3D mapping platform
- ✓ Rapidly map large indoor areas to visualize dose rates or localize sources
- ✓ Real-time 2D view of radiation hot spots
- ✓ Supports full 3D detector motion and quantification dwell measurements
- ✓ Powerful post-processing software for detailed analysis
- ✓ Import and align 3D radiation map with existing point clouds
- ✓ Image to surfaces, closed volumes, or all space
- ✓ Fast and Easy Startup
- ✓ User-friendly control and visualization interface
- ✓ Integration with existing H3D detectors and tools
- ✓ Wireless or Ethernet communication
- ✓ Swappable batteries for extended operation
- ✓ Option for GPS-sensor addition for large-area outdoor mapping
- ✓ Full spectroscopic and isotope ID capabilities of H3D detector preserved

GammAware can utilize existing H3D gamma-ray imaging systems:

- ❑ H Series
- ❑ M Series

Contact H3D to obtain a solution for your application.

GammAware™ adds Simultaneous Localization and Mapping (SLAM) to H3D®'s imaging capabilities. Now you can create 3D radiation images by moving around with your detector. Virtually navigate around the resulting images to see radiation maps and radiation hot spots in a 3D model of the scanned area.

New capabilities can be unlocked, such as:

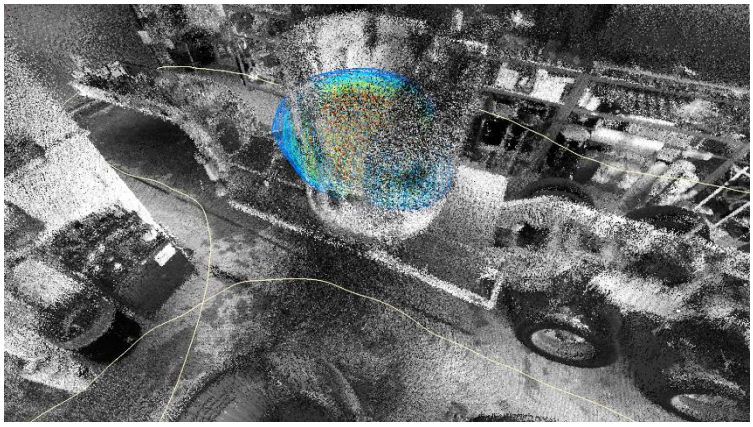
- ❑ Improved source-term maps and dose-rate visualization tools
- ❑ Shielding evaluations
- ❑ Time-motion ALARA dose estimations
- ❑ Accurate characterization for waste/material shipments



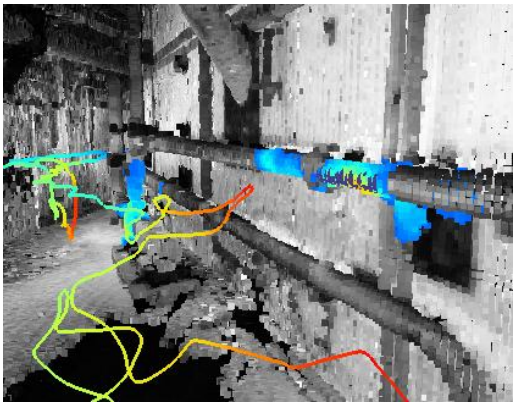
M-Series Version



H-Series Version



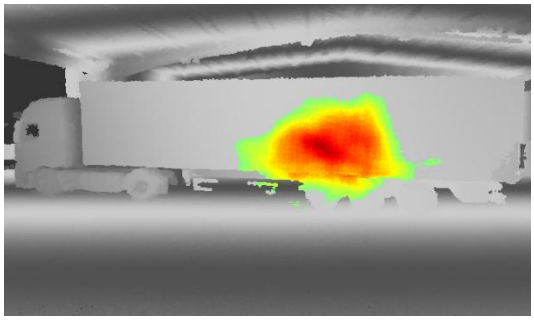
Colored volume shows gamma-ray intensity from a cask on a flatbed truck



Surface reconstruction of hot spots from pipes with GammAware path colored by dose rate



Take a stationary dwell for improved 3D quantification



3D image of a source in a cargo-container truck

GammAware Specifications

Battery Life:	1.0 hr per battery with continuous mapping Batteries hot swappable
Power Input:	24 V, <70 W (continuous mapping)
Startup & Operating Temp.:	-20° C to 50° C (-4° F to 122° F)
Startup Time:	<90 s
Movement Modes:	Full 3D motion Stop and dwell, retaining relative 3D position
Realtime Views:	2D map 2D path colored by dose rate 2D isotope-specific radiation hot spots
Post-Processing Views:	3D point cloud 3D path colored by dose rate 3D isotope-specific image to surfaces, volumes, or all space Activity quantification, with input of material geometry
Communication Options:	Ethernet or WiFi
Display:	8” 1280x800 HD tablet
Includes:	1-year license to Visualizer 3D software for post processing Tablet Power-accessory cables Transport and storage case
Warranty:	2 years
Optional Add-Ons:	GPS sensor

GammAware M Specifications

Dimensions with detector:	19.9 in x 7.5 in x 8.4 in (50.5 cm x 19.1 cm x 21.3 cm)
Weight with detector:	13.2 lbs (6.0 kg)
Ingress Protection:	IP67 (excluding customer-replaceable components)
Tripod Mount:	3/8”-16
Radiation Imaging Modes:	Compton Imaging Option to add coded-aperture imaging
Radiation Detector Module:	H3D’s M100 or M400

GammAware H Specifications

Dimensions (sensor pkg):	14.6 in x 5.7 in x 12.8 in (37 cm x 14.4 cm x 32.5 cm)
Dimensions (compute pkg):	8.0 in x 4.0 in x 7.0 in (20.3 cm x 10.1 cm x 17.7 cm)
Weight (sensor package):	5.0 lbs (2.3 kg)
Weight (compute package):	6.0 lbs (2.7 kg)
Ingress Protection:	IP67 (excluding customer-replaceable components)
Radiation Imaging Modes:	Compton Imaging Coded-aperture imaging when added to H420
Radiation Detector Module:	H3D’s H100, H400, H420

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