

## RAPISCAN AUTO-Z™ DETECTION SOFTWARE

Assists in the Detection of High Density Materials Associated With Weapons of Mass Destruction

Improves Security Through Enhanced Detection Capabilities

Increases Throughput by Reducing Operator Inspection Times

Available on the Rapiscan Eagle® M60 with the Material Separation option, Auto-Z™ is a detection software solution that significantly increases the speed and the performance of cargo and vehicle inspection systems in the identification of high density materials which may be missed by an inspector.

The detection of radiological and nuclear threat materials is a key priority of cargo inspection. The search for these materials by visual inspection of x-ray images alone is a skilled task, often reducing throughput speeds and with high error rates from inexperienced operators.

Effective and efficient detection of materials of a high density or high atomic number (high-Z) in cargo requires an advanced software detection tool that supports high throughput environments.

The patent-pending Auto-Z application alerts the operator to the location of fissile and shielding materials of a higher density than those found in commercial cargo.

- The Eagle Auto-Z Operator Assist tool is a cargo detection software solution which alerts the operator to the location of potential high-Z threat materials such as special nuclear material or radiation-shield
- This software solution is designed to aid the operator, helping reduce the potential for operator error, especially in high throughput environments.
- Auto-Z processes single-energy x-ray image data, and applies a detection algorithm based on fundamental material properties.
- Offering high performance in highly-cluttered and dense cargo, Auto-Z analyzes the x-ray image data and identifies the location of high-Z material within the container, even for highly-cluttered and dense cargo not fully penetrated by the beam (i.e., partially saturated).
- Fully integrated within the Rapiscan Cargo Viewer, Auto-Z provides the operator with real-time markup of areas which contain high-Z materials within the cargo.
- Auto-Z can also be used with other options available with Eagle systems, including Material Separation and Radioactive Material Detection. Use of Auto-Z with these complementary tools may improve detection or false-alarm performance.
- Auto-Z for example can detect shielded radioactive materials that
  may not be detectable by standard radiation portal monitors (RPMs).
  When used in conjunction with RPMs the software can provide a
  specific location for risk items which have triggered the RPM, critical
  intelligence in keeping inspection teams safe.

Rapiscan Auto-Z Detection Software is available on model:

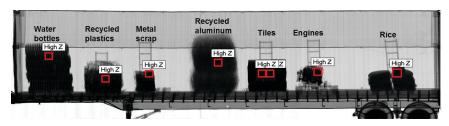
Eagle® M60 with the Material Separation option - 6 MV X-ray imaging system deployed on a truck chassis for scanning dense and densely-loaded cargo



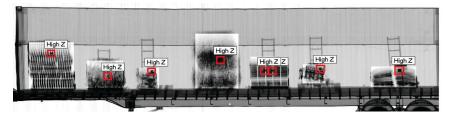
Rapiscan Eagle® M60 scanning with Auto-Z™ enabled.



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High density materials can look similar within the X-ray image; Auto- $Z^{TM}$  locates high-Z materials otherwise unseen by the operator.



Auto-Z™ Operator Assist Tool identifies high-Z materials of interest.

### Rapiscan Auto-Z™ Standard Features

Patent pending software solution

Efficient detection of high density & high-Z items

Fully integrated with Rapiscan Cargo Viewer software

Provides real-time markup of the X-ray scan for manual inspection intelligence

Works in conjunction with Material Separation software tools

Works in conjunction with Eagle Radiation Portal Detectors

Automatic analysis helps speed throughput of scanned cargo

Compatible with Rapiscan Eagle 6MV Portal, Gantry and Mobile systems

Can detect even shielded radioactive materials which may be missed by standard RPM's

Suitable for complex, cluttered and dense cargo types

Superior Quality, Comprehensive Standard Features and Flexible Options - Included with Every Rapiscan Eagle Cargo and Vehicle Inspection System.

Our commitment to value and innovation make Rapiscan the first choice in cargo and vehicle inspection solutions. Rapiscan Systems is a global leader in high quality inspection solutions and advanced threat identification techniques. Security is our only concern, and we focus on developing customer-centric solutions that are future-proof and cost effective. All Rapiscan products are backed by a 24 x 7 worldwide training, maintenance and service organization.

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Rapiscan Systems is ISO 9001:2008 Certified