

ACCELERATE

VOLUME 3 • ISSUE 1

Embrace the

Possible

Integration of Inspection Systems



DATA DRIVEN INSPECTION FOR FAST, SECURE TRADE

Digital Transformation has brought new opportunities for Customs agencies to use technology in order to improve their operations. Integrating inspection technologies with software to create primary vehicle and container lanes allows for a fast and secure inspection process of all traffic that keeps trade flowing.

This opens up opportunities to share important inspection data across borders so that agencies are able to verify trade to increase revenue, intercept contraband and ensure a secure trade process.

The World Customs Organization (WCO) developed the Security Framework so that agencies can harmonize their security procedures. Within the framework is a set of international standards for the use of vehicle and container scanners that can be used by all customs agencies.

The use of vehicle and container scanners provides many benefits for customs agencies, including:

- Reduced need for physical searches
- Faster processing of shipments
- Improved security
- Increased compliance with international standards
- Data sharing opportunities

In this issue we will take a look at what it takes to create an inspection operation for fast, secure trade on your borders and between international partners.

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S2 Global provides an intelligent platform that delivers accelerated integrated inspection services to secure trade, transport and events.



S2 Global
United States of America
www.screeningsolution.com

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Is Your Team Up to
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Embrace the

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Integration of Inspection Systems

When it comes to cargo inspection, new software provides enhanced opportunities for fast, secure trade.

Conventional wisdom has deemed it impossible to keep trade flowing while inspecting every vehicle and container entering or exiting land, sea or air borders using an X-ray system.

But there is progress. Increasingly software can be married with inspection technology to increase non-intrusive inspection of cargo and vehicles at levels approaching 100 percent thanks to system integration. You can create a primary inspection process with automated features providing fast, secure trade lanes.

New software capabilities facilitate simplified connections to hardware and software so that

“reading” the information from the connection provides two-way communication between systems. These connections allow commands to be put in place to control the systems. Combined connections produce a workflow that controls operations.

Workflows ensure the right data is delivered to the right user, yielding:

- Essential information that is conveyed to facilitate inspection decision-making
- Decisions that are recorded, ensuring accurate record keeping
- Accurate records that make audits possible, providing a window into decision-making and expanding the knowledge base of users

What does success look like? A harmonious process that allows for increased inspection at every entry point.

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The CertScan integration platform delivers relevant information to the right people to keep the inspection operation flowing.

AUTOMATION OPPORTUNITIES

A TREMENDOUS OPPORTUNITY USING AI FOR AUTOMATION

Automatic inspection has long been the vision of Customs agencies. Technology can facilitate automation through algorithms. One of the potential uses of AI outlined in the [WCO Study Report on Disruptive Technologies](#) published June 2019 was, “Analysing container images made by x-ray scanners to improve the efficiency of cargo inspection.” We agree and have outlined how an integrated inspection process is the perfect foundation for using algorithms for automation.

Automatic inspection can occur faster when you are inspecting every piece of trade crossing your border. Large amounts of data collected in a near 100% inspection scheme will provide necessary information to write algorithms that are both properly designed and relevant to your agency. Getting large amounts of data for cargo has traditionally been difficult. But today, by integrating the inspection operation capturing large amounts of data to facilitate automation, algorithm development is possible.

Using technology including RFID, license plate readers, facial verification, and non-intrusive inspection technology combined with textual data and human interaction through a workflow in software is integral to creating algorithms to facilitate automated inspection.

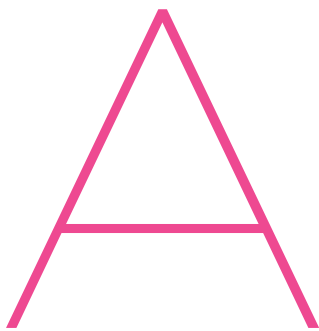
Although sometimes overlooked, we still need the human element. Humans provide the verification needed to train good algorithms and decisions during an inspection by identifying anomalies in the cargo inspection. The combination of large amounts of data with human analysts puts forth opportunities to create algorithms for automatic inspections.

Today you are able to automate many software and hardware functions through a workflow process which helps deliver information to your people so they can augment the data with their expertise. As your verified data library grows building algorithms becomes standard practice to make the operation efficient. Algorithms help you automate tasks while your inspection operation stays efficient as it becomes more complex.

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Getting More With LESS: Efficient Inspection Operations



A wide array of business operations are experiencing common problems limiting their ability to execute on their vision. People and process challenges are hampering performance

efficiencies, and screening operations are not immune. Among the key factors:

- skilled labor shortages
- the speed of technology developments outpacing the ability of the labor force to understand how to maximize the updates and improvements and
- increased workloads overall

But there is a strategy for relieving some of these pressures: harness the power of technology integration to achieve efficiencies to get more out of what you have.

First, define your vision and mission for inspection. Is it to:

- Increase ease of trade with partner countries?
- Fortify secondary inspection capabilities?
- Elevate primary inspection capabilities?
- Migrate analysis to a centralized location?
- Grasp every detail about every shipment coming through the inspection site?
- All of the above?

Whatever your inspection vision, you must assess the current state of your hardware and software systems. Is the status quo good enough to carry your program into the future?

If the answer is no, you must align your vision with both current and future systems. Combine these into a workflow that will ensure your operation is getting the most out of technology to achieve maximum efficiencies.

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**CertScan captures every piece of inspection data
into a workflow to integrate people and processes
into an efficient operation**

One Click Design

Getting tasks completed in a fast environment can be frustrating without the right tools. Your user interface has to help you to get them done quickly and reliably.

What if you could have every piece of information you needed to make a security screening decision at your fingertips? You could

- Quickly discern a problem and communicate to your colleagues
- Track anomalies from point to point
- Make better decisions using complete information
- And, be confident in the inspection process

A great user experience presents information so you can process it diligently, without having to think too much about what to look for next. The task choices should be prominent and up front so you can make the next action with confidence. And the visuals should be universal, so you know what you are looking at.

With today's graphical user interface design knowledge, the era of the unintelligible user experience is over.



S2 Global will be participating in Mission UX, a workshop to discuss user-centered design techniques for complex products that operate within extreme environments, where mistakes are costly and safety is crucial.

**January 23, 2023
Washington, DC**

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“It is crucial for CertScan users to stay focused on their critical responsibilities throughout their mentally-taxing and fast paced workdays.”

“The more the system can point users in the right direction, the less they have to think about using the interface and the more they can focus on doing their job.”

“The system needs to seamlessly lead users through finding the right tasks and information at the optimal time within their workflows.”



Power Your Screening Operations through a Common Integrated Platform: CertScan®

CertScan® is designed to seamlessly integrate data and security technology to facilitate an efficient operation and deliver actionable data to your people.



**SECURE
INFRASTRUCTURE**



**COMMON
INTEGRATION
PLATFORM**



**PROCESS
TRANSFORMATION**



**S2 UNIVERSITY
LEARNING**



www.screeningsolution.com/integration

Meeting environmental goals through integrated inspection



Going green is a multi-faceted effort. Customs administrations contribute to environmental sustainability by supporting effective implementation of environmental agreements addressing harmful practices and encouraging better use of resources.

US CBP posts their strategy for environmental protection summarizing the key points.

- Incentivize Green Trade – provide facilitation benefits and other incentives to promote environmentally-friendly trade practices and supply chains
- Strengthen Environmental Enforcement Posture – enforce against environmental bad actors to drive meaningful changes in trade practices
- Accelerate Green Innovation – promote and invest in the deployment of innovative, sustainable trade practices by government and private industry
- Improve Climate Resilience and Resource Efficiency – decrease the greenhouse gas emissions associated with CBP operations and strengthen the resilience and sustainability of trade infrastructure and assets.

CertScan propels environmental sustainability through combining of resources under one workflow, reducing energy use, using less resources, accelerating trade, reducing emissions by faster clearance times.

Reducing energy consumption, resource use and emissions while increasing trade inspection seems counterintuitive, but Integration of systems allows for all of these goals to be achieved through

- Promotion of resource efficiencies
- Consolidation of processes
- Increased speed of secure trade

The customs clearance process and efficient border management are vital to the success of green supply chains. We are now in a new world where connectivity and interoperability are more important than ever. This can be seen in how regional integration efforts have become critical for trade facilitation procedures that will help environmental protection efforts succeed across borders.

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DATA SHARING



Digital transformation has given us the opportunity to think bold about sharing information. With the ability to exchange data through the cloud, organizations have started working together on sharing agreements to increase the speed of secure trade.

Every second counts when loading and unloading a container ship or inspecting land traffic. The ability to review and adjudicate every shipment prior to arrival gives an advantage to Customs inspectors. Upon arrival, if a shipment is to be inspected further, Customs officers already have the information needed right at their fingertips, using tools that make their work easier and more efficient.

Fast, secure trade lanes empower

- Customs to inspection information during transit for evaluation and risk assessment
- Encourage more trade for all business sizes
- Reduce long Customs clearance times
- Add a layer of verification for trade evaluation

As agencies bring more information online, integration of data into one common platform will spur innovative trade programs across the globe. No matter the origin, data can be used singularly or packaged with relevant adjacent data. For Customs, standardizing relevant data helps facilitate sharing agreements. Both the World Customs Organization and US CBP are supportive of data standards for trade.



Components for data sharing

- Reliable inspection operation at both points
- Standardized data
- Software to view the data, evaluate and add to the data packages

Inducing a dramatic leap forward in international data sharing and supply chain security requires multi-lateral cooperation. Agencies must coordinate within their organization and with their partners on important issues such as data privacy, cybersecurity, and technology capabilities to produce a well thought out timeline for adoption. When a plan is put into place, the resulting benefits for the organization as a whole as well as individual officers on the ground will lay the foundation for increased cross-border secured trade.

Data Sharing creates fast, secure trade lanes by

- Providing standardized pre-screened inspections
- Pre-routing secondary inspections upon arrival
- Automating customs processes for validation

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Is Your Team Up to Speed?

“We aren’t building our training from Google. Our content is gathered by people with more than 100 total years of government service.”

**GARY HEFFNER,
S2 GLOBAL DIRECTOR
OF TRAINING**

AT THE START OF TRAINING

week with customs and border personnel, Gary Heffner, S2 Global director of training, often asks, “If you were given access to a Formula 1 race car, would you be prepared to hop in and drive off?” Some of his students say yes, Heffner laughs. Then he shows his slide of the extremely complex steering wheel of an F1 vehicle, and things get quiet. His point is that the S2 University data analysis training program is not just handing Customs and border staff a key to go drive. With more information to view, sophisticated training is essential to master data inspections and consistently succeed at threat and contraband detection. Heffner says, “We’re going to teach you the methodologies, what the tools are that you are going to have on your machines, and then cover how you use those tools.”

The S2 University data analysis program isn’t just about x-ray images; it is about using the whole data package during an inspection. Over the course of the training S2 University provides clear metrics to understand what areas require improvement. In the end, it is about results. While ideally, Customs personnel will look at as many data packages as possible, so that when they are in the field the level of friction in commerce is reduced.

Heffner cites two important metrics that show the benefits of successful training:

- They take less time to look at the data; and
- As they progress, they select fewer data packages to look at, keeping commerce flowing.

Once people are really trained on how to identify threat items, they don’t have as many false positives, Heffner says. They achieve a higher success rate at finding the right things in less time.

Heffner says in some ways measuring S2 University’s training success is simple: “We make them better at finding things.”

S2 UNIVERSITY IMAGE ANALYSIS TRAINING RESULTS

34

Final Average Increase from Initial Exam Score

138%

Increase In Overall Performance

93%

Officers Who Improved From Baseline

96%

Student Satisfaction

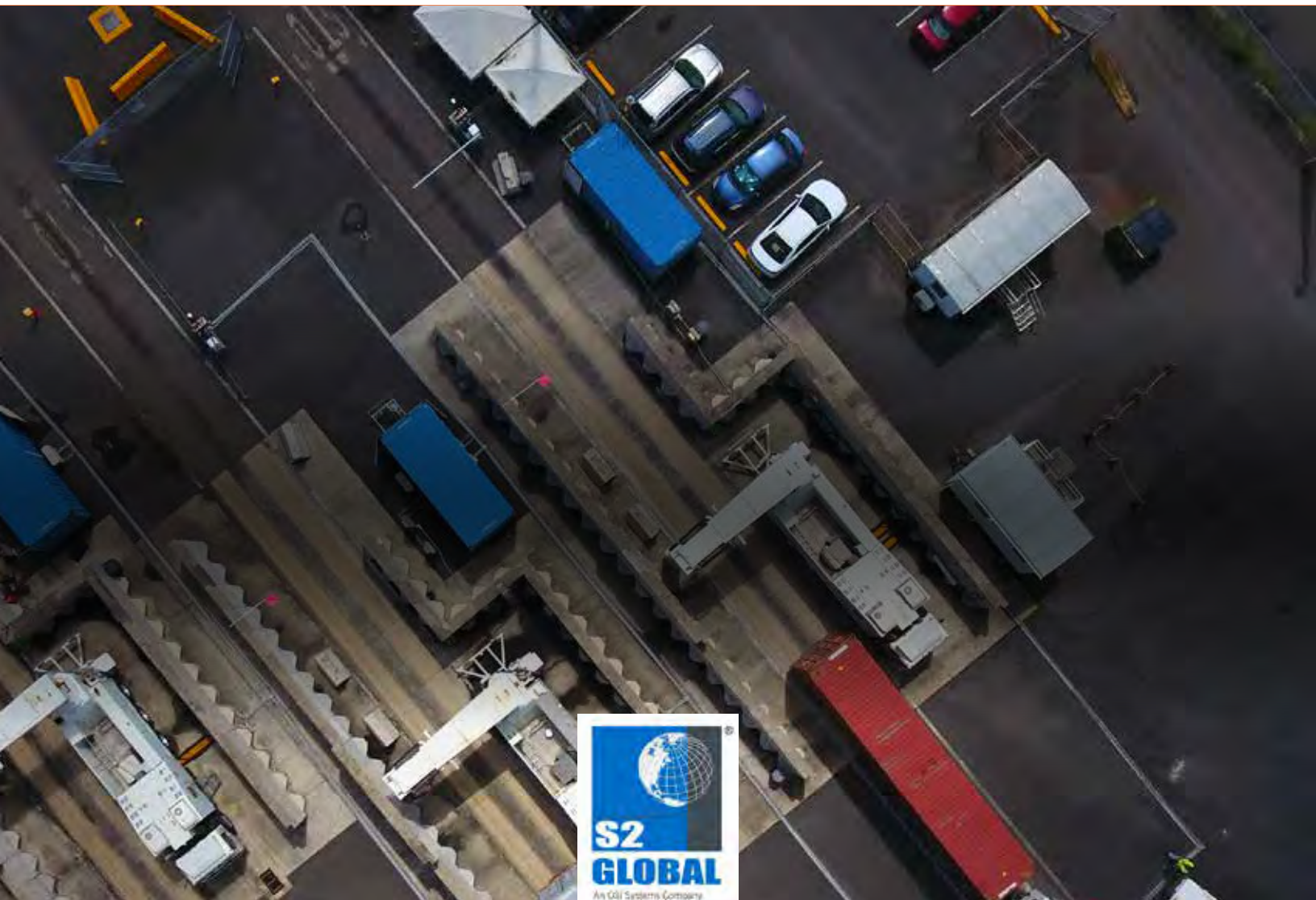
S2 UNIVERSITY CLIENT TRAINING RESULTS

	Country 1	Country 2	Country 3	Country 4	Country 5	Totals
Final Average Increase	21	41	51	27	32	34
Increase In Overall Performance	42%	141%	100%	86%	317%	138%
Officers Who Improved From Baseline	82%	100%	100%	82%	100%	93%
Student Satisfaction	91%	100%	91%	100%	100%	96%

**Imagine your Customs inspections flow
through a harmonious process, bundling the
right information at every action.**

Your data gets smarter with every click.

How many fast trade lanes would you make?



“Best training course I have had in my 19 years of service.”

— S2 UNIVERSITY CARGO & VEHICLE IMAGE ANALYSIS STUDENT,
CANADA BORDER SERVICES AGENCY



The Critical Element for Effective Screening Operations: **HIGHLY TRAINED PERSONNEL**

Screening operations are better served when the people who are responsible for the processes are highly trained. S2 University provides security screening training to maximize the skill and performance of your personnel.



www.s2university.com



Intelligent integration to secure trade, transport & borders.



www.screeningsolution.com