E-Learning Modules

OTS premium
Learning Content

X-ray Simulator Modules – Smiths Detection
Avsec CBS Primary/Secondary/Advanced 4
Avsec CBS aTiX – Conversion 6
Avsec HBS – Multi View 7
Air Cargo EU 8
OTS tutor 9

Tutorial Modules
Avsec Bodies 10
The Threat – Weapons and Bombs 11
Defence – Equipment 12
Checkpoint 13
Air cargo equipment – Smiths Detection 14
HBS Multi level screening concept – Smiths Detection 15
X-ray Multi View technology aTiX – Smiths Detection 16
X-ray Multi View technology aTiX – iLane – Smiths Detection 17

Management Modules

Management Modules
STI Management Module 18
Course & Group Manager – X-ray Simulator 18

Additional Management Modules
Content Creator – X-ray Simulator 19
Tutorial Editor 19

This publication contains a list of modules as part of the OTS E-Learning System. With this modular and flexible training software, modules can be considered either as learning modules or as management modules. Learning Modules offers a broad range of training assets, whilst Management Modules are necessary to run the system and to administer the training system or alter the content.
Operator Training in general should consist of two parts:

Once screeners have been acquainted with the theoretical framework of their job, they should learn about their duties in practice and how to improve their skills in detecting threats not only faster but to take the correct decision.

Therefore, the unique OTS learning system offers a selection of different learning modules distinguishing in practical X-ray Simulator modules and theoretical Tutorial modules.

In addition to above mentioned learning modules, to run an E-Learning system you would need to operate and to manage it. Therefore it is necessary to equip your system with the management modules and to consider helpful additional management modules as options.
X-ray Simulator Modules: Avsec CBS

As technology for the security industry increases, so too does the need for higher quality in X-ray image interpretation. Avsec CBS – Smiths Detection is now the most proven and efficient E-Learning approach worldwide, especially developed for initial and ongoing training of aviation security screeners. Students as well as instructors will enjoy the unique image quality of the celebrated X-ray Simulator, which is the world’s first and only TrueType X-ray Simulator according to image quality standards (IQS). With the new IQS-2 available with this module, X-ray image interpretation and fast detection of threats will help to conduct screeners training more efficient than ever before.

Due to IQS-2 it is now possible to enrich the classical learning as “blended learning” concept or even to substitute parts of the costly on-the-job-training. Compared to conventional training simulators offering graphics rather than solutions, additional time-consuming guidance besides the program becomes now obsolete.

Course Description

With Avsec CBS – Smiths Detection nearly each screening situation can be simulated perfectly through IQS technology and the unique course learning methodology (STEP). The course follows the pedagogical guideline: “From easy to hard – from the uncomplicated to the complicated”.

Students will be acquainted very fast to distinguish between innocent and critical items, bags and situations. In the next step information concerning threatening items like weapons, IEDs and dangerous goods are presented.

The STEP learning methodology currently provides four different, specially developed session types by E-Learning and Security experts, with each providing stepwise progression of practice skills.

Simulator Features:

**Image Perfection:**
Unique picture quality due to import of “image raw data” and full compatibility to Smiths Detection X-ray machine.

**Exact Functions**
Image Enhancement functions are displayed exactly like on the machine (including VARI in all views).

**Multiple Views**
Capable to display multiple views according to the machine type.

This X-ray Simulator supports the image quality standard IQS-2.
Avsec CBS Primary

<table>
<thead>
<tr>
<th>Learning</th>
<th>Casess</th>
<th>780</th>
<th>780 learning objects each with learning instructions, single item description and with relevant details (like real pictures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session Type (STEP-Methodology):</td>
<td>Info Recognition &amp; Correct Decision</td>
<td>Indication/Pointing</td>
<td>Threat Alarm</td>
</tr>
<tr>
<td>Info</td>
<td>350</td>
<td>90</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>200</td>
</tr>
</tbody>
</table>

| Learning Units | 45 | 45 units in 9 different levels of information sessions and practice exercises + 3 tests and final exams |

| X-ray Views | 93940 | All X-ray bags displayed automatically in 2 X-ray angles, each with 61 machines functions and levels views due to IQS-2 |

Who will benefit from this courses?

- Aviation Security Screener working with Smiths Heimann X-ray machines for Cabin Baggage Screening
- Security Personnel in the fields of Aviation
- Trainer interested to monitor the individual learning process of each student plus group and making modifications and adjustments
- Clients interested to reduce costly classroom or on-the-job training

Avsec CBS Secondary

Including content of Avsec CBS Primary (780 + 616)

| Learning Cases | 616 | 616 learning objects each with learning instructions, single item description and with relevant details (like real pictures) |
| Session Type (STEP-Methodology): | Indication/Pointing | Threat Alarm |
| Threats: | Dangerous items |
| Indication/Pointing | 36 | 500 |
| | | |

| Learning Units | 29 | 29 units with 3 tests |

Avsec CBS Advanced

Including content of Avsec CBS Primary & Avsec CBS Secondary (780 + 616 + 600)

| Learning Cases | 600 | 600 learning objects each with learning instructions, single item description and with relevant details (like real pictures) |
| Session Type (STEP-Methodology): | Threat Alarm | Dangerous items |
| Threats: | |
| | 540 | 165 |

| Learning Units | 27 | 27 units with 3 tests |

Tips

- X-ray interpretation training should be assisted by an experienced instructor acting as a tutor or mentor either during a blended training or between E-learning sessions
- Better results achieved when students start with Tutorial modules like “Threat” and “Defence”
X-ray Simulator Module: Avsec CBS aTiX – Conversion

As the automatic detection of explosives in carry-on baggage belongs to the newest X-ray technology at a checkpoint, operator needs to be acquainted with the differences comparing conventional checkpoint screening. This X-ray Simulator is the world’s first and only true-type E-Learning Program for the HI-SCAN 6040aTiX Multi View X-ray inspection system.

Having exclusively access to the same technology, students will use this X-ray Simulator as indispensable preparation to work with the new machines.

There is no doubt in Aviation Industry, that even with the newest technology human skills are still essential to analyse the results of automatic explosives detection process, even though reliable methods exists for fast and secure identification of threats.

This OTS X-ray Simulator has been exclusively authorized by Smiths Detection as the only E-Learning program capable to train aTiX operators outside the checkpoint and the technical machine installation.

Course description:

With the exceptional image resolution of the HI-SCAN 6040aTiX and both analyst views (side view and bottom view), new point of views are shown to the student. The focus of this course lies on distinguishing bags having a special structure and density and therefore perfectly suitable to be scanned with this new technology. In addition to the dual views displayed exactly like on the machine, students will receive a third view considered as a comparison to what it would look like in a conventional, single view machine.

In both information as well as threats identification lessons, a set of more than 100 bags with dangerous items will be shown to students. One of the objectives is on concentrating on the better and faster recognition of overlapping objects and separation of dense or complex bags. As trays are often used in an automatic detection system, an additional set of items will be shown only inside of trays.

| Learning Cases | 100 | 100 learning objects each with learning instructions, single item descriptions and with relevant details (like real pictures) |
| Learning Units | 10 | More than 10 units of information sessions and practice exercises |
| X-ray Views | 12200 | All X-ray bags displayed automatically in 2 X-ray views, each with 61 machines functions and levels views due to IQS-2 |

Who will benefit from this course?

- Each client having an aTiX machine in use will profit from this X-ray Simulator providing a even higher throughput due to improved screener understanding
- As the only authorised E-Learning program for aTiX, this X-ray Simulator is a helpful and indispensable amendment to existing training system

Tips

- Students using this X-ray Simulator should also learn with the tutorial course X-ray Multi View technology aTiX and iLane
- For better results, students should learn first with the Avsec CBS Primary X-ray Simulator
- To use as amendment to one of STI’s Avsec CBS X-ray Simulators
X-ray Simulator Module: Avsec HBS – Multi View

Highly advanced state of the art training system for aviation security screeners with HBS operations. This is an X-ray Simulator, especially developed for use with automated Smiths Detection X-ray Equipment (e.g. EDXis).

It is “The Only” Training Program with an X-ray Simulator composed of “Real” Smiths Heimann X-ray Images i.e. besides being X-ray correct the images are true X-ray images. X-ray image interpretation with 1,800 presented X-ray bags (Smiths) in IQS-Quality, which means simulation of multiple threat situations recognizing IED’s without a loss of quality.

X-ray images are delivered with a second view like displayed e.g. on the EDX-2is. This X-ray Simulator is exclusively designed for Smiths clients to increase the detection performance of HBS screener faster than any other learning system, instructor-lead training or on-the-job training before.

Course description:

With Avsec HBS – Multi View nearly each screening situation can be simulated perfectly through IQS technology and the unique course learning methodology (STEP). The course follows the pedagogical guideline: “From easy to hard – from the uncomplicated to the complicated”.

Students will be acquainted very fast to distinguish between innocent and critical items, bags and situations. In the next step information concerning threatening items like weapons, IEDs and dangerous goods are presented.

Four different, specifically developed session types by experts with each providing stepwise progression of practice skills.

### Learning Cases

<table>
<thead>
<tr>
<th>Learning Cases</th>
<th>1800</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800 learning objects each with learning instructions, single item description and with relevant details (like real pictures)</td>
<td></td>
</tr>
</tbody>
</table>

### Session Type (STEP-Methodology):

<table>
<thead>
<tr>
<th>Threat Alarm</th>
<th>Dangerous Goods</th>
<th>IED’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

### Learning Units

<table>
<thead>
<tr>
<th>Learning Units</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 units (40 IED’s, 20 Dangerous Goods) in different levels of information sessions and practice exercises.</td>
<td></td>
</tr>
</tbody>
</table>

### X-ray Views

<table>
<thead>
<tr>
<th>X-ray Views</th>
<th>219600</th>
</tr>
</thead>
<tbody>
<tr>
<td>All X-ray bags displayed automatically in 2 X-ray angles, each with 61 machines functions and levels views due to IQS-2</td>
<td></td>
</tr>
</tbody>
</table>

Who will benefit from this course?

- HBS Operators
- Security Personnel into different fields of Aviation Security X-ray Screening for HBS Smiths Heimann Equipment operators
- Refresher
- Trainer interested to monitor the individual learning process of each student plus group and making modifications and adjustments
- Clients interested to reduce costly classroom or on-the-job training

**Tips**

- Select this X-ray Simulator to train analysts in a better detection of IED’s and Dangerous Goods
- Avsec HBS – Multi View should be used in conjunction with the Basic CBS X-ray Simulator
OTS Air Cargo EU is a cost-efficient CBT (Computer Based Training) programme used for initial X-ray image interpretation training of air cargo security personnel. It contains a set of lessons for the detection of explosives and dangerous goods and meets the specific requirements for the inspection of pallets and LD containers.

Since authorities require cargo to be scanned with X-ray machines, screeners need to understand the characteristics of cargo X-ray images and the specific learning methods involved. In addition to understanding the descriptions of different or larger sizes, as well as the proportion of items in comparison to other conventional X-ray images, screeners need to know that in most cases pallets cannot be turned or opened as easily as passenger bags. Therefore, search techniques can only be properly taught with a large number of different cargo X-ray images. OTS Air Cargo EU contains a wide range of Improvised Explosive Devices (IEDs), as well as various dangerous goods.

**Course description**
This course consists of animated learning units with the following structure:

**Basic Course**
Students learning with OTS Air Cargo EU will become acquainted with basic X-ray images while using different image enhancement functions. The image quality is the same as with an X-ray machine. This basic course also includes features that allow you to compare the X-ray image with a photograph of the prohibited item:

- Materials and Colours
- Rotation of Objects
- Electric Items
- Dangerous Goods
- Bombs in Cargo
- Marked Objects
- Cargo Inspection Basics

The target of the indication run is to recognize content objects in an X-ray image and to highlight them by left clicks.
X-ray Simulator Module:
Recurrent training: OTS tutor

OTS tutor is the newly developed software solution used for recurrent X-ray image interpretation training.

The individually adaptive CBT (Computer Based Training) programme is state-of-the-art and especially developed to meet increased needs in the civil aviation market.

With OTS tutor, screener skills are intensively enhanced to quickly and reliably detect threat items in X-ray images, which is essential to increasing overall security.

This is achieved by the specially developed “level” design of the programme, including its various training sessions and reporting mechanism that provide the instructor with an excellent overview of the students’ overall performance.

Needless to say, as with all our other OTS products, OTS tutor is absolutely user-friendly and very easy to handle – making it the most efficient and cost-effective e-learning product for X-ray screener training on the market.

Individually Adaptive
In order to train your screeners effectively, a training is needed which is uniquely designed for every single one of them.

The OTS tutor creates individual training sessions, which are customized for each screener’s skill level.

Technical specifications
- 6000 bags
- More than 350 threat articles in different views
- 10 difficulty steps

OTS tutor contains 6000 bags with more than 350 threat articles in different views

OTS tutor Features:

Real Images:
Unique picture quality due to authorised Smiths Heimann images taken directly from the X-ray machines.

Realistic Functions
Image Enhancement Functions fit exactly to the displayed X-ray image.

OTS tutor is available with three different X-ray simulation modules:
- CBS single view
- HBS single view
- HBS multi view

This X-ray Simulator supports the image quality standard IQS-2.

Tips
- X-ray interpretation training should be assisted by an experienced instructor acting as a mentor during blended training or between e-learning sessions
- For clients using several manufacturers of X-ray machines it is recommended to show students the difference with other available OTS X-ray Simulators
Tutorial Module: Avsec Bodies

It is essential for the security staff to have knowledge regarding the Avsec Bodies formed worldwide. These Avsec Bodies regulate the aviation authorities globally through conventions, conferences and legislations.

This would enable the security staff to be aware of threats posed by aviation sector, the motives behind these and also the consequences resulting from a breach of these regulations. Learning about the regulations would result into better vigilance and more focused security.

This module covers the fundamentals of aviation security for better understanding of duties and rights of airport staff. This provides “regulatory” background with information on important aviation authorities like ICAO/ECAC/EU.

Thus acquaints them with the attack incidences in the history of aviation and the relevant issues on terrorism.

Who will benefit from this course?

- Security Personnel into different fields of Aviation
- New Aviation Security Screeners (Beginners)
- Heads of Security and Security Directors
- Instructors refreshing their knowledge
- Employees and companies working for Regulators
- Anyone who is involved in aviation authorities

Tips

- Select this module as part of your individual "OTS premium" classroom
- Go for the recommended packages of "OTS Solutions"

Course overview:

This course consists of animated learning units with the following structure:

Introducing to aviation security
In this chapter you will receive information about the importance of aviation and the threats associated with it:
- The importance of aviation
- Threats to aviation (definition, distinctions, reasons, criminal motives, example of acts, statistics)
- Technical equipment

IECAO/International regulations
This learning unit will provide all relevant directives for aviation security personnel:
- Introducing ICAO and its importance for your job
- Relevant annexes, directives and procedures
- Particularities of Annex 17 to the Chicago Convention Security Areas

ECAC/National regulations
Students will learn differences between organisations and the local adaptation into national law:
- ECAC and important EC-Regulations
- Cooperation with other international organisations
- Incorporation of the Regulation into national law
- The three pillar principle/Traffic areas of an airport

Threats to aviation
For a better understanding to recognize patterns of attacks, criminal acts and incidents, this unit provides students with all necessary background:
- History of important criminal acts against aviation
- Consequences and measures after incidents
- Reasons, motives and types of terrorism
Tutorial Module: The Threat – Weapons and Bombs

A well trained security staff on threats would be better prepared and more vigilant to be able to detect a threat object. It would be equipped with analytical information on the history of terrorist attacks, the motives and the reasons behind these. Also would possess knowledge on relevant legislations passed by the international aviation authorities to counter these attacks. Therefore it is widely believed by experts that screeners have no exposure of identifying threats are more likely to not be able to identify it.

Based on the newest finding and development in detecting threats, this course is the perfect preparation for new screeners and a useful reference book for refresher trainings. Explaining common and rare kind of weapons, knives and other dangerous or prohibited items, each student will be acquainted with the necessary measures and also how to distinguish proper camouflaged items. The recognition of explosive devices (bombs) and especially about the critical detection of IED’s (improvised explosive devices) and liquid explosives with its instructions at the checkpoint are main topics.

Course overview:
This course consists of animated learning units with the following structure:

Threats to aviation
- Historical background
- Criminal acts against aviation from 1931 until now
- Reasons and motives for the threat to aviation
- Definition of terror

Weapons
In this chapter students will receive information concerning weapons and other dangerous item. Practical examples of camouflaged weapons and other rare items will be shown:
- Weapons and aviation law
- Types and parts of firearms
- Licensing of weapons
- Concealed weapons and dangerous items
- What if weapons or dangerous items are detected
- National list of prohibited articles

IED – Improvised Explosive Device
Employees at the screening check point have to know the possible construction methods and functions of the different parts of explosives:
- Results of a bomb threat
- Definition of IED
- IED concealment
- Recognising an IED

Explosives
Students will learn about types of explosives, incendiary compositions and their effects. Also, concealment and recognition possibilities when searching for a bomb:
- Detonation and plugging
- Effect of explosives
- Classification of explosives
- Regulations

Who will benefit from this course?
- Security Personnel into different fields of Aviation
- New Aviation Security Screeners [Beginners]
- Heads of Security and Security Directors
- Instructors refreshing their knowledge
- Employees and companies working for Regulators

Tips
- Select this learning module as part of your individual “OTS premium” classroom
- “The Threat” is considered as a perfect preparation to interpretate X-ray images
- Amend to this module the OTS Avsec CBS Primary X-ray Simulator
Tutorial Module: Defence – Equipment

Equipments are helpful tools for the security staff to execute their routine operations. But these advance equipments can be of no use unless the staff is not trained on using it efficiently and effectively.

It is of outmost importance for security staff to possess the skills to be able to use these equipments at their best and take the right decisions while on job. This module is specifically devised to achieve the objective that screeners get good exposure to work with X-ray equipments and detection devices.

It is fundamental for them to understand the technology related to these equipments (e.g. limits of detection) and how to use them safely and in coordination with other equipments simultaneously.

Who will benefit from this course?

- Security Personnel into different fields of Aviation
- New Aviation Security Screeners (Beginners)
- Heads of Security and Security Directors
- Instructors refreshing their knowledge
- Employees and companies working for Regulators
- Anyone who is involved in aviation authorities

Tips

- For a better understanding of the theoretical information in this module, clients should amend the Avsec CBS X-ray Simulator

Course overview:
This course consists of animated learning units with the following structure:

Screening equipment
The student will be acquainted with different equipments for passenger screening, cargo screening and hold-baggage screening:
- X-ray unit for hand luggage
- Multi-level X-ray unit for hold baggage
- Cargo X-ray units
- Walk through- and hand-held metal detectors
- Explosive detection system

X-ray technology (Smiths Heimann)
This is a detailed chapter on how to use the X-ray equipments properly. Explaining Image Enhancement Functions and practical tips for image interpretation are essential for their daily screening:
- Construction of an X-ray unit
- Functions of an X-ray unit
- Hi-Mat material recognition

Additional functions
- Function Keys of an X-ray unit
- Image Storage System (IMS)

HI-Treat Image Projection – HI-TIP
- HI-TIP [Smiths Heimann]
- Identified objects
- Recognized objects
Tutorial Module: Checkpoint

This module is essential for all employees screening passengers or visitors of buildings with X-ray machines at the checkpoint. Students will learn how to analyse different kinds of X-ray images. They will learn more about how to distinguish between materials and objects while interpreting an X-ray image. "X-ray screener tips" allows novices to get acquainted with some basics when scanning bags for the first time, independently from the machine type in use. Dark or black areas displayed on the screen e.g. should always raise the attention of the screener, whether he press some functions to get more details or inspect the bag with a manual search.

After passing the X-ray part, students will learn about their responsibilities as a screener, how to perform a body search and know more about the basic procedures at a checkpoint. This course also includes information about different alarm types, the passengers right and appropriate measures after an incident.

Course overview:
This course consists of animated learning units with the following structure:

X-ray screener tips
The student will be acquainted with important tips how to analyse an X-ray image and how to search properly different kinds of bags:
- X-ray screening requires concentration
- Rotation of objects, different viewpoints
- Overlapping and complex objects/bags
- Difficult recognition of dense packed bags
- How to optimize the view of an X-ray image

Body search
This unit imparts the knowledge on how to search passengers with the practical experience of work at a checkpoint. Furthermore the duties of the operators and different control procedures will be explained in this learning unit:
- Passenger screening, four stations for security
- Basic procedures, duties at the entry control point
- Technical aids for the body search safety measures for operating
- Sensitive areas, prosthesis carrier, casts
- Checking babies and small infants
- What to do in case of a threat
**Tutorial Module: Air cargo equipment**

This module is especially designed for Air Cargo training with Smiths Heimann machines explaining all relevant machine types in use at Cargo Checkpoints at Airports but not limited to Airports. Customs organizations and companies requiring for scanning bigger items than bags will also profit from this interactive and self-paced learning module. This module has been developed under the supervision of Air Cargo Security Experts and is a perfect introduction towards explaining the work of Air Cargo Screeners.

Students will learn the peculiarities about different HI-SCAN machines, radiation basics and safety regulations. The basic characteristics of X-ray image evaluation like image enhancement options are explained to the students as well as what to watch for in general when certain kinds of images are displayed. This theoretical module also explains the important basics of explosives, and especially gives a detailed introduction into Improvised Explosives Devices (IED’s) and the principal directives of incidents.

**Course overview:**

This course consists of animated learning units with the following structure:

**Air cargo screening equipment**
The student will learn the differences between equipments used in passenger baggage screening due to their different sizes. Students will be acquainted with the most frequently used equipment.
- HI-SCAN 145180
- HI-SCAN 100100T, HI-SCAN 100100V
- HI-SCAN 180180-300kV

**Radiation protection and safety operation**
Students will learn about safety regulations and about how to use the X-ray equipments.
- Radiation basics, external and internal dosage
- Are objects damaged by X-raying?
- Tips for the safe operation of an X-ray unit

**HI-MAT PLUS and image editing**
(characteristics of X-ray images)
This learning unit will explain how to get a proper exposure on using the image enhancement functions:
- X-ray image evaluation
- Area of material recognition and the characteristics of different images displays.

**Explosives**
This unit will show how to detect threats at the screening checkpoint and learn about possible ways of assembling and functions of the different parts of explosives devices:
- The bomb threat and their consequences
- Classification of explosives/Definition of an IED
- Functional diagram of an IED and components of an IED
- Evaluation of threats and principal directives

---

**Who will benefit from this course?**
- Existing Air Cargo Screeners improving their skills in efficient X-ray recognition
- Security Personnel in the fields of Aviation Security using X-ray machines with tunnel size bigger than 100
- New screeners working with Air Cargo machines

**Tips**
- Select this module as part of your individual “OTS premium” classroom
Tutorial Module:  
HBS Multi level screening concept

This module is a supplement of the X-ray Simulator “Avsec HBS – Multi View”. For a beginner before starting to screen for automatic detection systems, it is essential to understand the principles of Hold Baggage operations. At most of the airports, the automatic screening process is divided into different levels, each equipped with different targets and machines. Such that the aviation security screeners better understand the process.

This course is strongly recommended for new screeners and also for screeners changing from conventional equipment, or passenger screening to the HBS operations.

In conjunction with X-ray Image Interpretation this module is world’s first ever training package precisely for HBS training of Smiths Heimann machines.

Course overview:
This course consists of animated learning units with the following structure:

HBS Multi level screening concept
The student will be acquainted with important processes of the HBS operations, its different machine types and different levels of screening hold baggages:

- Multi level hold baggage screening inspection
- The principle of automatic baggage screening systems
- Multi level screening concept
- Process description of a multi level automatic baggage screening system
- The process levels in detail
- Schematic flow with animation of level 1 to level 3
- X-ray inspection machines for use in HBS – HI-SCAN 10080EDX
- X-ray inspection machines for use in HBS – HI-SCAN 10080EDX-2is
- X-ray inspection machines for use in HBS – HI-SCAN 10080EDtS
- Employing additional X-ray machines
- How to ensure safety
- Comply with the safety regulations
- How to check your X-ray inspection unit(s) before switching on
- Glossary

Who will benefit from this course?
- Employees working with X-ray equipment like: EDX-2is, EdtS and similar machines from Smiths Heimann
- General Introduction for all screeners moving from passenger screening with conventional machines to HBS
- Security Personnel into different fields of Aviation Security
- New screeners working with HBS machines

Tips
- Select this module as part of your individual “OTS premium” classroom
- This theoretical course is a helpful amendment to the X-ray Simulator HBS – Multi View
Tutorial Module: X-ray Multi View technology – aTiX

The HI-SCAN 6040aTiX Multi View X-ray inspection system is the first system to allow automatic explosives detection at security checkpoints. With the two detailed views (Dual View) available to carry out manual analysis, a quick and reliable evaluation process is supported now. A dramatically improved baggage throughput and real time evaluation can only be achieved with the proper use of the new technology.

Therefore students will get acquainted with an introduction to the new technology and get familiar with the principles of X-ray generators with the optimized spectrum and their independent multi-energy generators. The basic functions of this machine and its differences compared with conventional machines are explained in this learning module in order to run a save operation. Furthermore, additional information is provided for the analyst-like frames in detail to better understand the meaning.

Who will benefit from this course?

- Employees working with X-ray equipment like: aTiX and similar machines from Smiths Heimann
- General Introduction for all screeners moving from passenger screening with conventional machines to HBS
- Security Personnel into different fields of Aviation Security
- New screeners working with HBS machines

Tips

- Select this module as part of your individual “OTS premium” classroom
- This theoretical course is a helpful amendment to the X-ray Simulator HBS Multi View

Course overview:

This course consists of animated learning units with the following structure:

**Introduction**

- Construction of an X-ray unit
- Generator geometry
- Calibrating the 6040aTiX
- Dual Screen View
- Screen identification fields

**Components**

- Hi-Mat
- Organic-Inorganic-Overlapping area
- Image enhancement functions
- Image enhancement options
- Object finder

**Safety Instruction**

- Check before switching on any 6040aTiX

**Operating the aTiX**

- Operating an X-ray unit
- Function keys
- Additional function for a recheck station
- Automatic detection functions
- Automated marking of suspicious objects
The iLane is a fully automated checkpoint concept, which is mostly used in conjunction with the HI-SCAN 6040aTiX multi view X-ray inspection system. For a better understanding of this concept, this learning module offers detailed description of the operation and an introduction of measures and instructions. The focus is to explain not only the special conveyor system but also to describe the checkpoint procedures, which may vary from what students have been taught before when working at a conventional checkpoint.

Therefore, novices as well as expert in checkpoint operation should learn with this module. The different components of the iLane and its functions or buttons are also explained in this module. Several bag-drop positions with tray dispensers, the automatic diversion of suspicious items and the usage of infrared camera-based empty tray recognition device are some details that students should be acquainted with before starting at the new iLane checkpoint.

Course overview:
This course consists of animated learning units with the following structure:

**Introduction to the iLane concept**
- Objectives
- iLane.evo
- iLane.evo components

**Safety Instructions**
- Controls of the control unit at the recheck point
- Light barriers and reflectors

**iLane components**
- Controls and indicators of the roller conveyor system
- Control panel of the switch cabinet
- Recheck of objects classified as suspicious
- Controls of the control units at the sorting point

**Operating the iLane**
- Charging of boxes
- Inspection of objects

**Who will benefit from this course?**
- Employees working with X-ray equipment like: aTiX and similar machines from Smiths Heimann
- General Introduction for all Screeners moving from passenger screening with conventional machines to HBS
- Security Personnel into different fields of Aviation Security
- New Screeners working with HBS machines

**Tips**
- Select this module as part of your individual “OTS premium” class-room
- This theoretical course is a helpful amendment to the X-ray Simulator HBS – Multi View
Management Modules:

The Management Modules are the heart and core of the OTS premium solution, as it is the E-Learning operating system for all training modules. The learn management system can be described as the command centre for instructors, supervisors and administrators as well. Technically speaking, the Management Modules are based on a secure Microsoft SQL database. The Management Modules are essential for all OTS premium configurations. Once it has been installed on a computer or server, it works like networked system but is not limited to it.

In addition, the Management Modules are always available to instructors, to arrange modules, allocate courses and lessons within these modules and to check the progress of a student when he desires.

The Management Modules have two main components:

STI Management Module
Course & Group Manager – X-ray Simulator

In the user interface you can add or delete users or modify the details of existing users.

In the group interface you can add, modify or delete groups.

Preview for the detailed result of the selected test of the selected user.

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Erkennen und zuordnen (2)</th>
<th>Date: 3/3/2009 10:47:39 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn object</td>
<td>Objects shown</td>
<td>Categories correct</td>
</tr>
<tr>
<td>164</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>221</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>222</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>225</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>347</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
STI Management Module

Features:
- Recording all relevant student activities
- Creating of unlimited accounts and allocation to learning groups
- Adaptive bookmark facility to memorise every student’s access level and allocation of different access rights
- Detailed learning report for performance analysis
- Time statistics like session time or exceeded response time of each single student
- Print, search and export function

Course & Group Manager – X-ray Simulator

Features:
- Allocation and sorting of courses, units or learning objects to different user groups
- Releasing courses of the selected modules for modifying content
- Tests and lessons can be locked for archiving
- Import and export of lessons to other OTS premium workstation

Additional Management Modules: Content Creator – X-ray Simulator

Features:
- Easily modifying existing learning objects in the X-ray Simulator:
  - Changing the text for instructions, changing the sensitive marking to click on items, inserting original X-ray images and real pictures
  - Creating new learning objects by choosing X-ray images from existing database or incorporating X-ray images easily from Smiths Heimann X-ray machines due to IQS or with graphics from other manufacturers
- Convenient selection of new bags and items of the complete classified content by automated visual query
- Easily inclusion of introduction slides at the beginning of each lesson
- Inclusion of personal remarks for instructors
- Creating new content units or learning objects
- Export of X-ray images
- Available for Smiths Detection – Avsec CBS Primary – Advanced and Air cargo Primary – Advanced

Tutorial Editor

In addition to the X-ray Simulators, OTS is available with a Tutorial, a learning platform designed to train security personnel and offer information sources beyond X-ray interpretation.

With the newly created additional management module Tutorial Editor the user has now the ability to create and edit new Tutorials on his own. The Tutorial Editor comes with pre-configured empty chapters and lessons. This makes it very fast and easy for any user to start adding content and to build up individual Tutorials.

Features
- Create your own content to build up your own individual Tutorials
- Create your own test- and training pages to each chapter
- Choose from three different content templates to use with your texts and images
- Use the same framework as STI Tutorials
Next Step

Once you have selected the modules for OTS premium, we recommend to have a look on our E-Learning Solutions catalogue guiding you how to compose and to configure your training system.

If you are interested in this, or any of our other products, please contact us and speak to a local sales agent.

STI Security Training International GmbH
Borsigstrasse 15
65205 Wiesbaden, Germany

Phone: +49 (0)6122 59834-0
Fax: +49 (0)6122 59834-69
elearning@sti-training.com

For information about updates and new modules please visit:
www.sti-training.com