**HI-TIP Plus™**

THREAT IMAGE PROJECTION
HEIMANN X-RAY INSPECTION SYSTEMS

**Introduction**
By means of HI-TIP, complete X-ray images of fictional baggage items containing threat objects are automatically projected between the images of real baggage items as well as single threat objects of different kind are automatically projected into real X-ray images of scanned baggage.

The operator of the X-ray system does not notice the projection process. During this procedure the full range of image enhancement functions to support the evaluation process is still available. Even automated operator support functions can be used in combination with HI-TIP. The task of the operator is to detect and mark dangerous or suspect objects.

**Operation**
If a suspect object has been detected and marked by the operator, the conveyor is stopped automatically. The fictional threat object is now displayed with a black/yellow frame. The fictional disappears from the screen for further evaluation of the real baggage.

Moreover, user with supervisor access level can specify:
- From which categories and at which percentage in proportion to the other categories combined threat images and single threat objects are projected during the normal operational flow.
- Which images from a category are to be projected.

**System Configuration**
The HI-TIP system provides a library divided into categories and subcategories containing combined complete threat images and images of individual threat objects. The supervisor can add, edit and delete categories.

**Missed Objects**
If the operator has missed an object projected on the image, the conveyor will be stopped and a message will be displayed on the screen. The real X-ray images together with the missed threat objects are automatically stored. The images can be recalled using the IMS (Image Store System).
System Configuration
The HI-TIP system provides a library divided into categories and subcategories containing combined complete threat images and images of individual threat objects. The supervisor can add, edit and delete categories. Moreover, user with supervisor access level can specify:

- Which images from a category are to be projected.
- Which decision times are provided for the operator to detect a threat image.
- How many projections are made randomly rather than within the diversification range.
- Which additional decision times the operator is given to detect a threat object if he has stopped the conveyor.
- The number of projections compared with the number of real bags.

The diversification of projections around the number of real bags.

Reporting System
From reports assigned to the individual users, higher level users can read how many times projected objects and images have been detected and how many of them have been missed. Conclusions as to the efficiency of the security checks with regard to different users and different workload can be drawn.