The X-Ray Object Recognition Test (X-Ray ORT) has been developed to provide a fair and comparable assessment method to reliably measure the visual abilities of an applicant.

**SCIENTIFICALLY PROVEN BENEFITS**

Human factors are key issues in X-ray screening. The most expensive X-ray machine is of little value if the security officer who operates it does not have the necessary ability to interpret X-ray imagery.

Various scientific studies have shown that there are substantial individual differences in visual abilities such as mental rotation, figure ground segregation and visual search abilities which are crucial in X-ray screening.

**HIGHLY ECONOMICAL AND EFFICIENT**

Employees with distinctive visual abilities can learn faster and generally achieve a 20% higher level of threat detection performance in certification tests compared to X-ray operators hired without a previous pre-employment assessment using the X-Ray ORT.

Choosing the right person thus helps to minimize training costs while at the same time increasing security and efficiency at the checkpoint.

**NO PREVIOUS KNOWLEDGE REQUIRED**

The X-Ray ORT is a fast, easy-to-use and reliable tool in the employment procedure of potential X-ray operators.

The X-Ray ORT is designed for people with no previous knowledge of how items are displayed on an X-ray machine. The test therefore only contains grayscale images and only shows guns and knives as there need to be commonly known items.
LEVEL OF DIFFICULTY
SYSTEMATICALLY VARIED

The items selected for this test systematically vary in the level of difficulty, based on bag complexity, superposition and object rotation. These are the image-based factors that highly influence threat detection performance.

HIGH RELIABILITY AND VALIDITY

The images for the test were created and pre-validated by security experts and psychologists. Therefore, the X-Ray ORT features excellent reliability coefficients with both Cronbach's alpha and split-half values above .90 (.80 is considered as the minimum standard).

WIDE RANGE OF APPLICATIONS

The X-Ray ORT can be applied wherever X-ray machines are used for security reasons, that is at airports, prisons, nuclear power plants, courts, military, event locations, etc.

SOFTWARE INTERFACE

SYSTEM REQUIREMENTS

Our software can either be pre-installed on a local workstation (server-client) or be used as a webbased (hosted) solution. We recommend the following system configuration:

SERVER-CLIENT SOLUTION

Server
- Windows Server 2008 R2
- MS IIS 7.5
- SQL Server 2008 R2

Workstation
- Windows Vista SP2 or above
- Internet Explorer 9
- Microsoft Silverlight 5
- Screen resolution 1280x1024

HOSTED SOLUTION

- Internet connection (1 Mbit/s per user)
- Windows Vista SP2 or above
- Internet Explorer 9
- Microsoft Silverlight 5
- Screen resolution 1280x1024

Please note that these are general guidelines. For detailed information on the compatibility of your specific configuration of hardware, please contact us.