

# VISTA Introduction

A brief presentation of VISTA products line.



# Introducing VISTA.

VISTA stands for Visual Interactive Simulation Training Application.

It is the trade name for our Synthetic Maintenance Trainers.

Students become proficient and maintain their skills without access to the real equipment

- in a classroom environment;
- In standalone mode;
- on the job.

Applications are open-ended graphical models of systems. They include:

- units and equipment;
- tools and test equipments;
- 3D dynamic and interactive models;
- validated fault libraries.





# Key Features.

## VISTA Simulations

SCORM Compliant



## Audio Visual Trainer



IN-CONTROL



STUDENT  
STATION

## In-Control

In-Control Classroom Management System  
(CMS)



## Operator Trainer

## VISTA Simulations







# VISTA Simulations.

## Visual Interactive Simulation Training Application



VISTA simulations are PC-based applications.

They effectively train maintainers and operators of complex equipment and minimize or even eliminate the need for access to the actual equipment.

### Applications

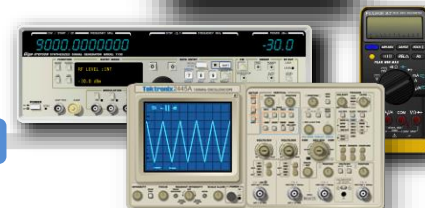
Dual applications Military and Commercial

High fidelity  
representation of:

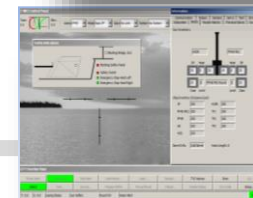
Equipment and logical behavior



Tools

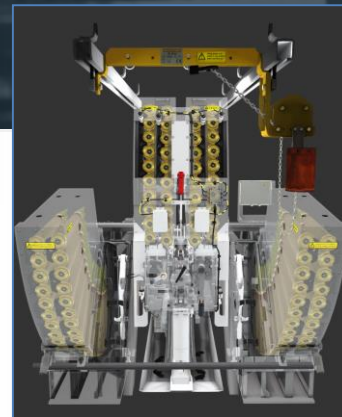
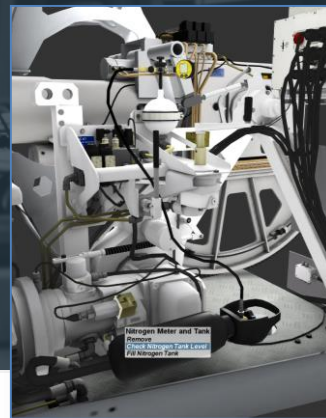
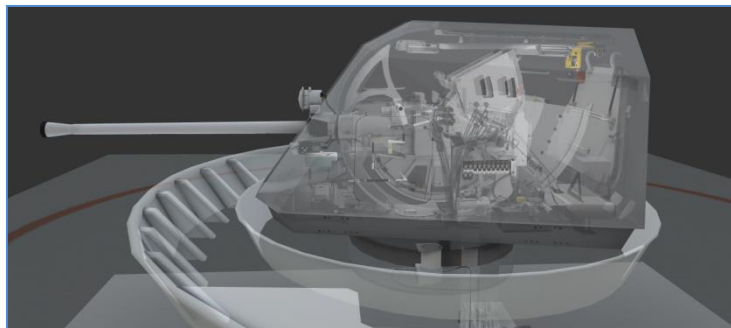


System tests



## 3D models allow students to:

- attach tools & measurement devices
- visually inspect components & perform maintenance
- zoom in on cross sections
- enable transparency to see internal mechanical relationships





# Operational Maintenance Training (OMT).

In an OMT scenario, the system is depicted as being fully operational.

## Non-faulted scenario

No malfunction or problem is experienced. The system operates normally under ideal conditions.

## Diagnostic tests

Built in tests (BIT) and other diagnostic tests can be performed by the student to confirm that the system is fully operational.

## Power up / down procedures

Student can go through power up / down procedures. Proper indications can be observed until the system reaches its steady state.

## Daily maintenance routine

Maintenance routines can be performed for familiarization.



# Corrective Maintenance Training (CMT).

In a CMT scenario, the system is experiencing a problem or failure.



## 01 – Fault recognition phase

The student observes symptoms caused by the fault.

## 02 – Diagnostic phase

The student performs test points measurements and tests in order to identify the root cause of the issue.

## 03 – Fault repair

The student repairs the faulted component and ensures the system is back in operational state.



# In-Control

Classroom Management System (CMS)



# In-Control.

In-Control is our Classroom Management System (CMS).



## Instructor station

Allows the instructor to structure the teaching curriculum and evaluate performance through monitoring, recording and playback of student actions.



## Student station

Allows the students to perform the training curriculum and view their personal history.





# In-Control.

As a CMS, In-Control offers multiple features to organize, perform and evaluate the training curriculum.

## ■ Class setup

Training is organized in classes, courses, modules and lessons.

## ■ Student support

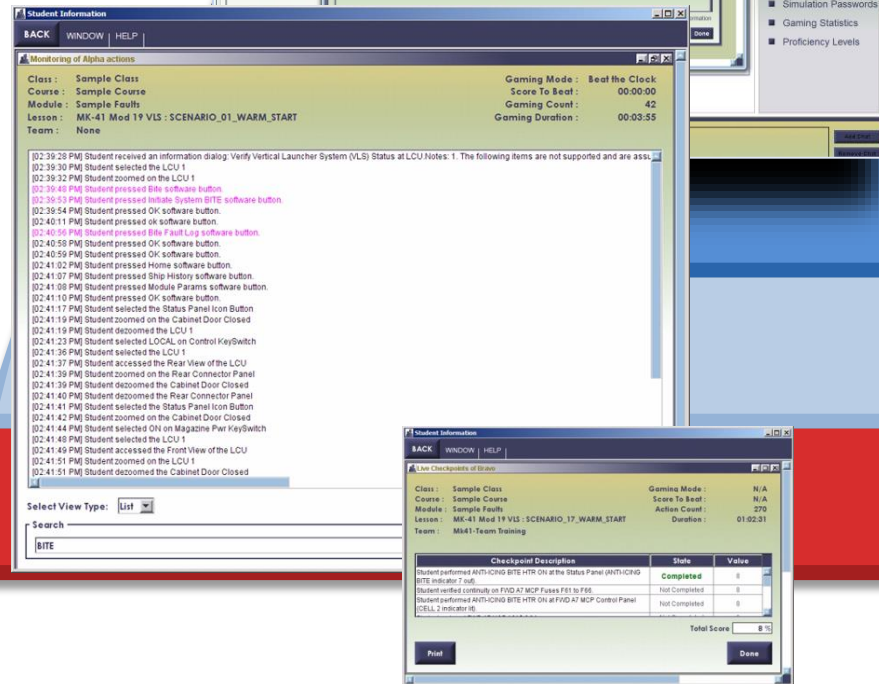
Various capabilities such as remote control allow the instructor to support students during the learning process.

## ■ Monitoring, Recording and Playback (MRP) capabilities

MRP allows real-time textual and visual monitoring. Training sessions are recorded for future reference.

## ■ Performance evaluation

Actions performed in the simulation fire checkpoints that are used by the instructor to evaluate the performance of each of the students. Pass/Fail criterias can also be defined.



## Audio Visual Trainer (AVT)





# Audio Visual Trainer (AVT).

A fully interactive training environment to enable parts familiarization, skills practice and troubleshooting.

## 01 System theory

Explains how the system operates.

## 02 Parts familiarization

Presents all parts of the system.

## 03 Troubleshooting

Allows the student to troubleshoot problems and to learn how to fix them.

## 04 Procedures

Describes how to perform particular procedures on the system such as removing and replacing parts, taking assemblies apart , etc.

01 – System theory

02 – Parts familiarization

03 - Troubleshooting

04 - Procedures





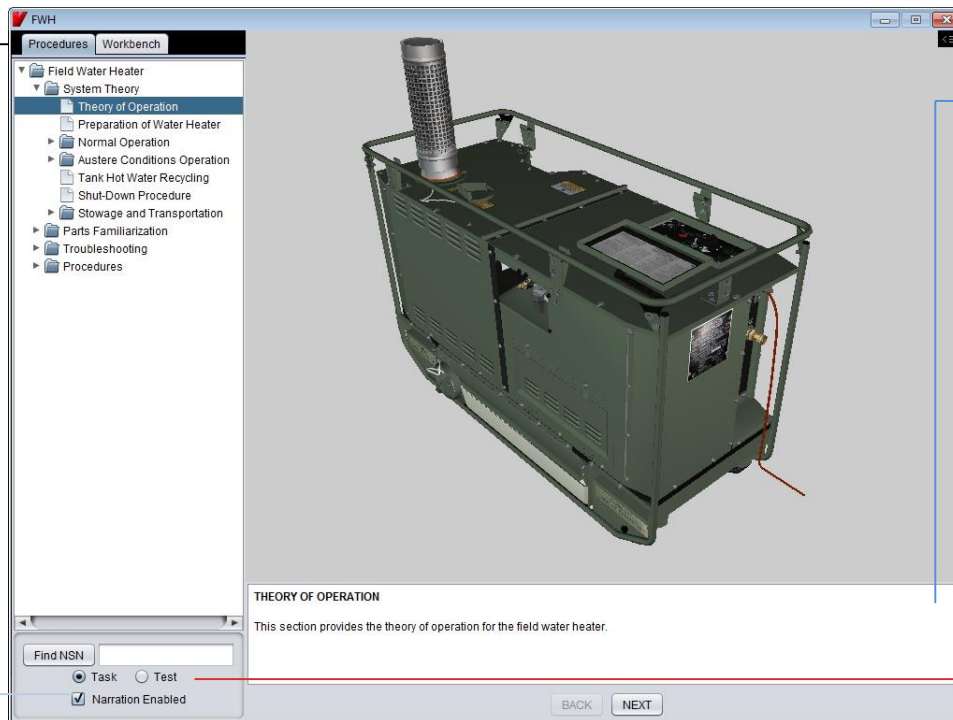
# Audio Visual Trainer (AVT).

## Procedures and Workbench tabs

Give access to all the procedures that can be performed, the tools that can be used and the parts inventory.

## Narration

Multilingual narration can be turned on/off.



## Instructions

Instructions are provided in Task mode only. They can be performed directly on the equipment using the mouse.

## Task & Test modes

Task mode allows the student to perform any procedure from the table of contents with instructions.

Test mode forces the student to perform procedures without any help. Too many mistakes leads to failure and brings the student back in Task mode.

# Operator Trainer





# Operator Trainer.

A synthetic training environment that brings the student one step closer to reality.



Integrates physically accurate user input devices  
Such as touchscreens, console user devices (CUD), etc.

Integrates high fidelity visual systems

Supports Distributed Interactive Simulation (DIS) and  
High Level Architecture (HLA) protocols

Allows the instructor to create scenarios in real time

## Portfolio

Some of our achievements.







# Portfolio.

VISTA Maintenance Procedure Trainer (MPT) for the Royal Canadian Navy (RCN)



FCS  
 CMS-330  
 SMART-S  
 IFF  
 NSC RADAR  
 DLPS  
 SG-180  
 ESM  
 SQS-510  
 AHWCS  
 ESSM  
 SRD-504  
 CANTASS  
 SIRIUS  
 RAMSES  
 SSTX  
 SHRS  
 CIWS  
 MASS  
 57mm MKIII  
 KIV-7M  
 3D Ship Layout





# Portfolio.

VISTA simulations for the United States Navy (USN)



## FMS Simulations

FODMS  
 CIWS 1A&1B  
 CIWS Ops  
 AEGIS LAN  
 ORTS  
 SPY-1F/1D/1D(V)  
 400Hz ACSSFC  
 UPX-36  
 MK84  
 WSN-7  
 MK99  
 MK41  
 UPX-29 IFF  
 CDLMS  
 SQQ-89  
 RESM  
 VMB  
 OJ-454  
 TIS  
 NAVSSI

## USN Simulations

CIWS 1B  
 TACAN  
 SQQ-32  
 SQS-73  
 USG2 CETPS  
 MK57  
 SPS-67  
 AYK-23 A(V) DPS  
 SPS-49 (V)1/5/8



## Portfolio.

134 simulations produced for customers around the world.

1 in use in Spain

3 in use in Australia

6 in use in the UK

6 in use in Norway

7 in use in Korea

13 in use in Japan

66 in use in the US

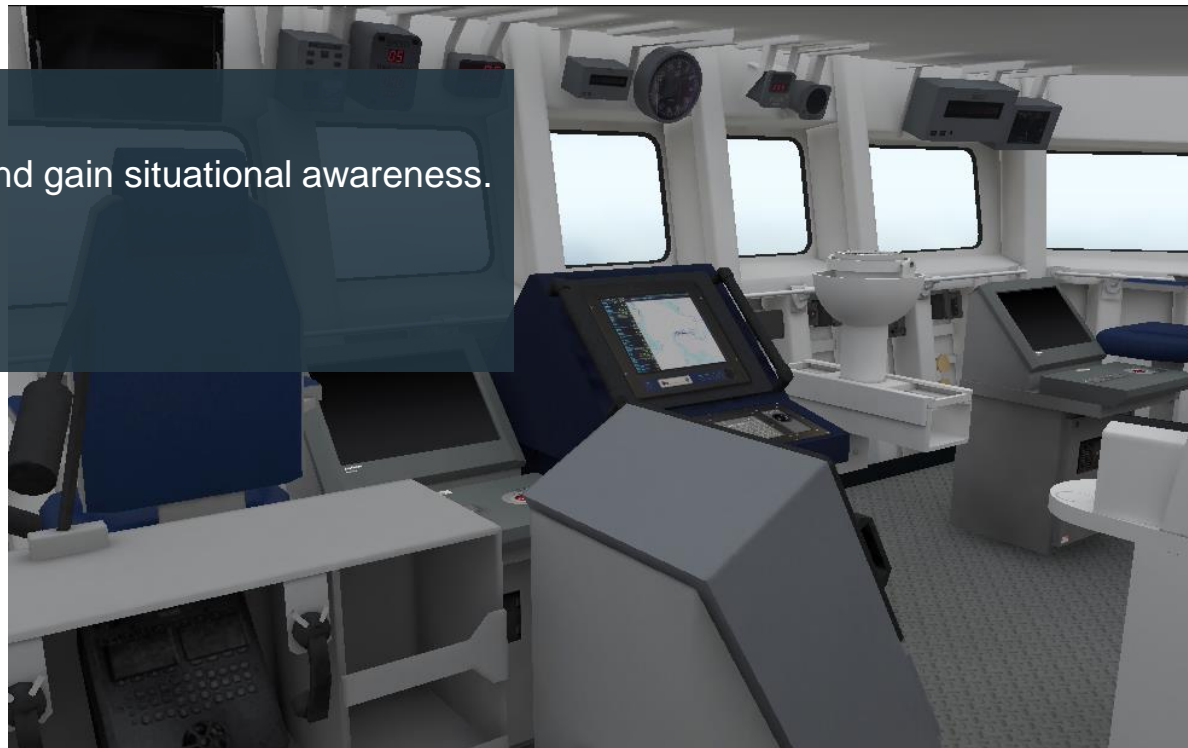
32 in use in Canada



# Our future plans.

Synthetic World Immersion

Learn the operational environment and gain situational awareness.



# CONTACT

Simon Hughes

[simon.r.hughes@lmco.com](mailto:simon.r.hughes@lmco.com)

(613) 599-3280 ext.3056