Mastering AVI

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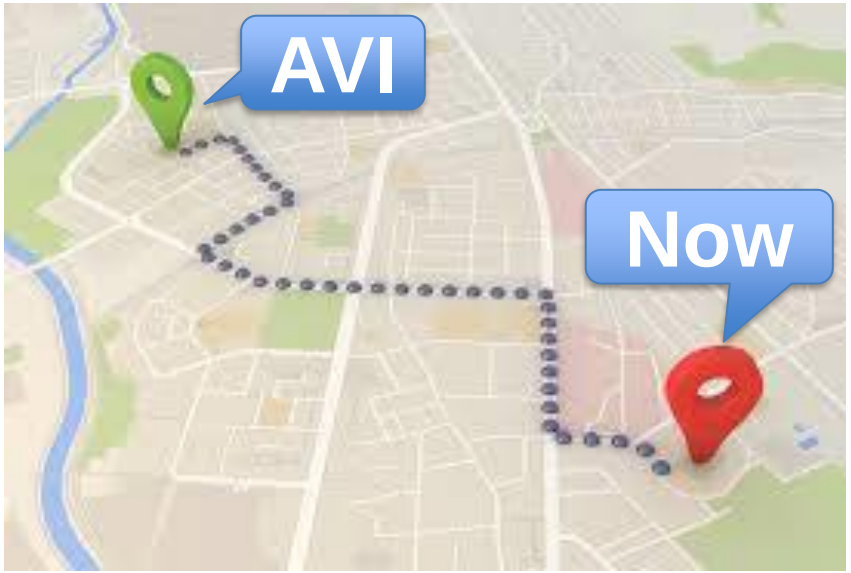
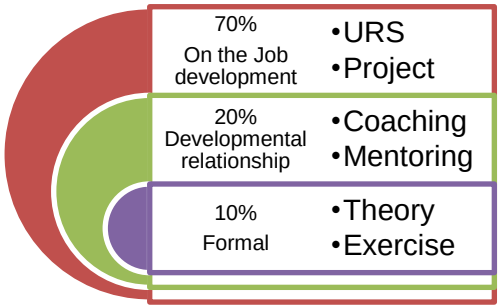
Mastering Automated Visual Inspection

…….A long way, let's guide you !



Training principle

- **Target audience**
  - This course is designed specifically for those who are involved or interested in moving from manual to automated inspection like
  - Managers, Supervisors and all Decision makers in the visual inspection area Quality personnel
- **Prerequisites:**
  - Basic understanding and practical experience of manual inspection (as conveyed in the PDA course ‘Introduction to Visual Inspection – A hands-on course’)
- **Learning Objective:**
  - Acquire basics about Regulatory landscape for AVI
  - Be ready to design your URS
  - Understand Key function of AVI equipment
  - Define your defect kits and validation strategy
  - Develop your own control strategy around AVI
  - Have basic knowledge about computer vision



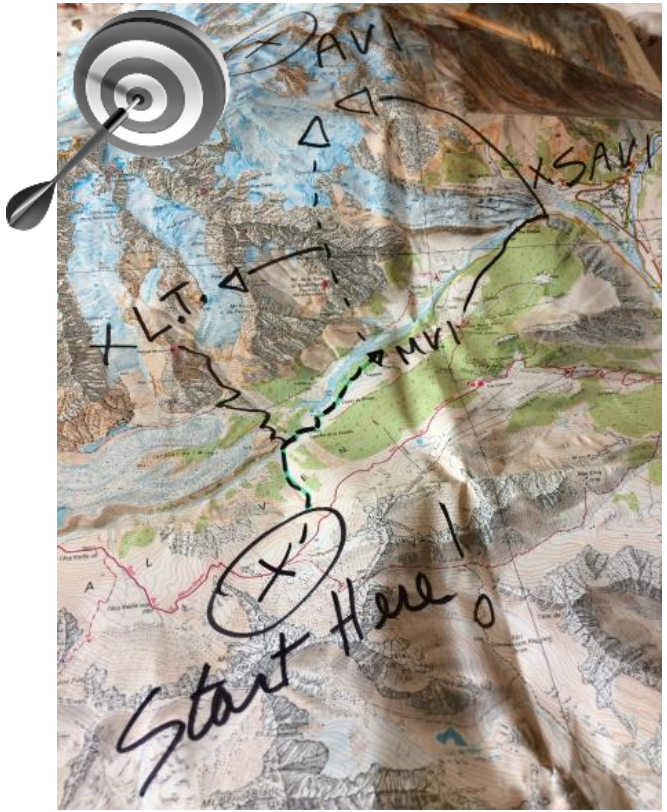
Training overview

- Visual Inspection mastery is fundamental in parenteral manufacturing in order to guarantee both patient safety and cost-effective supply.
- The capability of Automated Visual Inspection (AVI) has progressed extensively over the years to the point where, when applied appropriately, it can offer significant advantages over manual and semi-automated inspection processes. This has been made possible thanks to major innovations and technology breakthroughs.
- In line with these technological advances, the regulatory requirements for this challenging process have been reinforced.
- As a consequence, AVI machines today are complex and require multidisciplinary project teams for successful implementation (vision engineers, automation, mechanical engineers, validation experts, quality and regulatory affairs).
- This course has been devised to support your AVI program development, by addressing critical parameters, key competencies and practical approaches to managing the inherent complexity of AVI.
- In part 1, after a review of regulatory landscape, key functions of AVI equipment and associated critical parameters will be covered. Successful URS development will be covered by a practical workshop in order to address not only user needs but also to produce a comprehensive process flow model.
- In part 2, the need for an effective Manual Visual Inspection (MVI) baseline process will be overviewed as a prerequisite to AVI. Then, defect kits and validation strategies will be described. AVI has a scope broader than computer vision alone and the overall control strategy for the process will be covered.
- ‘Vision Engineering for dummies’ will be explained during a practical workshop using modern vision equipment and genuine examples of production defects.

Introduction to training session

- Instructor lead presentation
- Collection and clustering of expectations,
  - questions and professional
  - background of participants
- Agenda Reviewing

Share Your expectations



From Pioneer …..to modern technologies

1983

1987

1981

AGENDA for training session

Day 1

Day 1, 15 November 2023		
9:00	Welcome and Introduction of Trainers and Participants	
9:30	Module 1: Introduction To Regulatory Requirements of Visual Inspection	Romain Veillon, GSK Fernand Koert, GSK
10:45	Coffee Break	
11:15	Module 2: Introduction To Technical Principles of Automated Inspection Machines	Romain Veillon, GSK Fernand Koert, GSK
12:15	Lunch Break	
13:15	Module 2: Introduction To Technical Principles of Automated Inspection Machines (cont.)	Romain Veillon, GSK Fernand Koert, GSK
14:15	Module 3: Considerations on Primary Containers and Product Properties	Romain Veillon, GSK Fernand Koert, GSK
14:45	Exercise 1: Developing Risk Assessment based on URS	Romain Veillon, GSK Fernand Koert, GSK
15:45	Coffee Break	
16:15	Module 4: Selection and Purchasing of an Automated Inspection System	Romain Veillon, GSK Fernand Koert, GSK
17:15	Exercise 1 (cont.): Presentation of the Results of the Sub-Groups and Discussion of the Results Q&A from Day 1	
17:30	End of Day 1 & Networking Reception	

AGENDA for training session

Day 2

Day 2, 16 November 2023		
9:00	Recap of Day 1	
09:15	Module 5: Transition from Manual Inspection to Automated Inspection HEPA-Filter	Romain Veillon, GSK Fernand Koert, GSK
10:15	Exercise 2: Principle Basic Image Processing Using an Open Source and Commercial Library	Romain Veillon, GSK Fernand Koert, GSK
11:00	Coffee Break	
11:15	Exercise 2 (cont.): Q & A on Image Processing	Romain Veillon, GSK Fernand Koert, GSK
12:00	Module 6: Qualification Test Set and Routine Test Set	Romain Veillon, GSK Fernand Koert, GSK
13:00	Lunch Break	
14:00	Module 7: Visual Inspection Lifecycle and Control Strategy	Romain Veillon, GSK Fernand Koert, GSK
15:00	Module 8: Operation and Maintenance of Automated Inspection Systems	Romain Veillon, GSK Fernand Koert, GSK
15:30	Coffee Break	
16:00	Future Trend of Automated Visual Inspection	Romain Veillon, GSK Fernand Koert, GSK
16:30	End of Training Course	