

Packaged Goods



How Machine Vision is used to meet today's increased demands for information, quality, and manufacturing flexibility in the Consumer Packaged Goods industry





Aplatec

"The accuracy is superb, and we know the labels we end up shipping are the same every time. This allows us to ensure 100% product quality for our customer, and ties in with our overall continuous improvement strategy."

Jim Bruynell.

Maintenance Manager

Precise Technology

Proven Applications in Packaged Goods



Consumer Products

- Color Sorting
- Assembly Verification
- Label Inspection
- Code Reading
- Defect Detection

Cosmetics

- Label Inspection
- Critical Dimension Gauging
- Date/Lot Code verification
- Container Filling & Sealing

Bottling

- Label and Cap presence / skew
- Fill level detection
- Sorting
- Safety Seal Presence
- Bottle Counting

Packaging

- Robot Pick & Place
- Carton Inspection
- Labeling/ Marking
- Material Handling
- Print presence verification

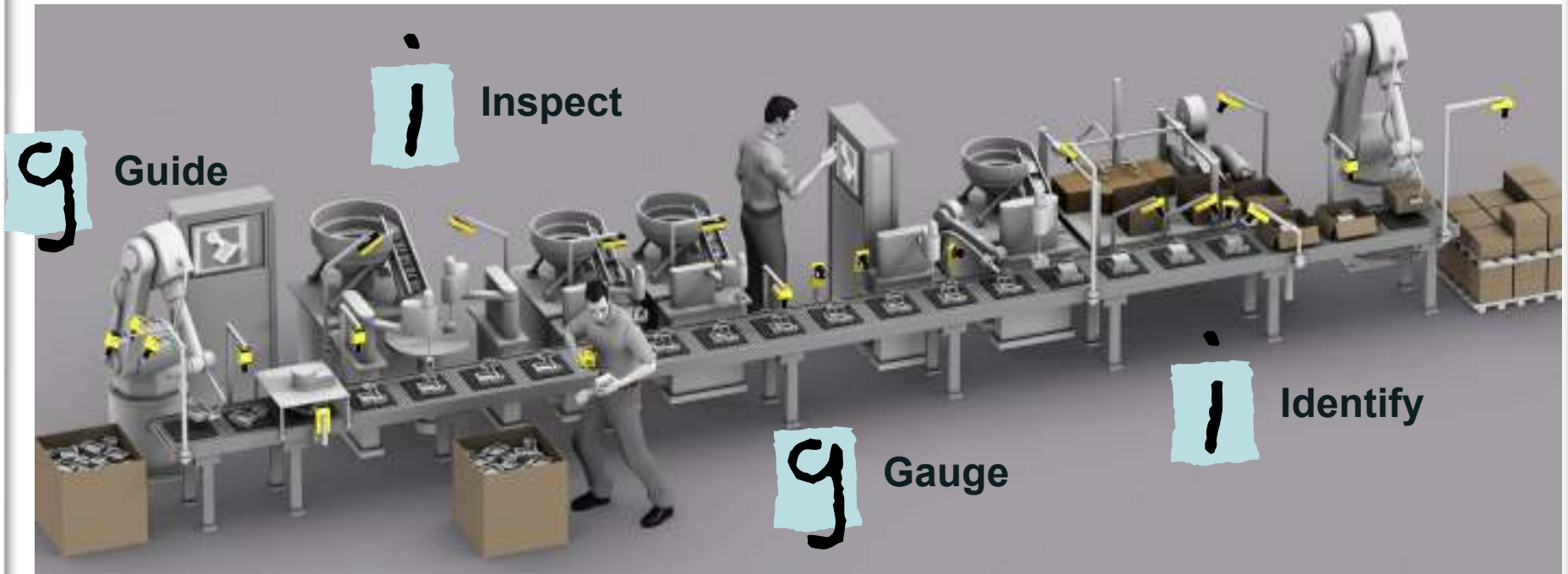
- Benefits of Machine Vision:
 - Package Integrity
 - Product Safety
 - Product Traceability
 - Enhanced Brand Image

Vision Applications



What does machine vision do?

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Flaw Detection



- Ensure package integrity of processed food
 - Presence / absence of internal parts
 - External dent detection
 - Surface coating detection



Shampoo Bottle Quality



- Bottle & Label Inspection
 - Inspects shampoo bottle for 7 characteristics including label skew and wrinkles, and print quality
 - Inspects 3 bottles per second
 - Despite part rotation, changes in optical scale, inconsistent lighting, and normal part variation



Conveyor Tracking



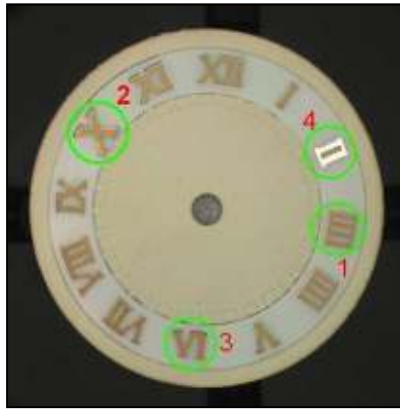
- Application:
 - Picking randomly oriented food from moving conveyor at 150 items per minute and loading to carton
- Benefit:
 - Flexible high speed robot automation



Precision Watch Manufacturing



- Application:
 - Checking watch faces for various characteristics
- Benefit:
 - The industrial image processing used in this context has contributed decisively to maintaining the high quality level of the end product



Multiple Feature Inspection of Bottles



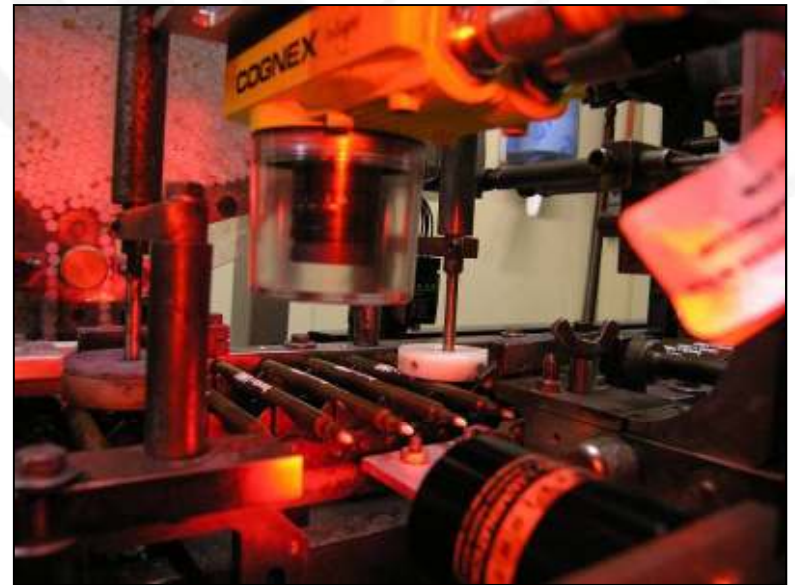
- Application:
 - Complete quality inspection of bottled products after filling process
- Benefit:
 - Preventing defectively sealed bottles from being shipped to customers



Scrap Reduction



- Application:
 - Measure the dimension of the felt-tip pen during their insertion
- Benefit:
 - Reduce scrap, improve production capacity



Packaging Integrity



- Application:
 - Inspection of beer crates with 4 camera systems to isolate dirty and damaged crates
- Benefit:
 - Improves company's image and reputation



Printer Cartridge Quality



- Application:
 - Inspection of high, volume, high quality electronic components.Interconnect systems for ink jet printer cartridges (4000/min)
- Benefit:
 - Dramatic operational improvements, keep unit costs down



Shampoo Bottle Labeling



- Application:
 - Checking position and type of labels on back and front of shampoo bottles, also for shrink wrap pack inspection
- Benefit:
 - 100% inspection, network for centralised monitoring and control



Benefits of Machine Vision:



- Increase Productivity
- Trace Parts
- Boost Yields
- Enhance Product Quality
- Lower Capital Costs
- Reduce Scrap & Rework
- Increase Customer Satisfaction
- Improve Brand Image