

SORTING WITH SPECIM FX CAMERAS

Reliable material identification



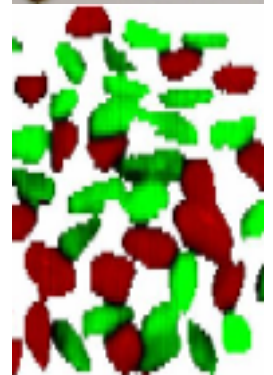
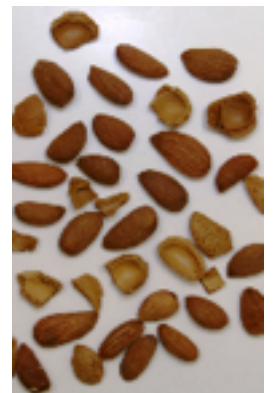
REACH MAXIMUM VALUE IN YOUR SORTING

SPECIM SOLUTION - FX CAMERAS

- **Identify** and separate materials with a single camera
- **Freely configurable** based on applications
- **Industrial** speed and resolution

IMMEDIATE BENEFITS

- **Enhance** sorter detection capability to new materials and foreign objects
- **Configure** your sorting system for various customer demands
- **Upgrade** the performance of your existing sorters



Hyperspectral sees chemical differences –even color and shape are similar like in almonds and pieces of shell



WHERE CAN YOU BENEFIT FROM SPECIM FX CAMERAS?

SPECIM FX cameras enable you to add precise and reliable chemical identification to your vision and sorting systems. Compared to traditional color and shape-based sorting, chemical identification will increase the value in the sorting results in many cases, like

- Waste processing and recycling; sort more materials and their grades (like plastic types) in a single machine, with more reliable results and at higher capacity.
- Food and feed and agri product processing; improve quality, increase safety and reduce waste by doing 100% inspection of the material/product stream for controlling the proper chemical composition and/or detecting foreign objects and impurities.
- Mining industry; reduce energy consumption and amount of waste by more efficient separation of ore and side rock.

SPECIM FX CAMERAS MAKE HYPERSPECTRAL IMAGING THE NEXT MAJOR VISION TECHNOLOGY

SPECIM FX cameras meet all the key industrial requirements in on-line inspection and sorting:

- Their line scan rate is high enough for required spatial resolutions with process line speeds of several meters per second.
- Cost is affordable for sensible return-on-investment in industrial processes.
- They are robust and compact for industrial installations and require minimal maintenance.
- Easy to accept and adapt by machine vision integrators.
- The cameras are directly compatible with the most advanced real time hyperspectral analysis solutions.
- They have a fully configurable multiple region of interest (MROI) property making it possible to replace a range of fixed-filter instruments with a single camera.

HOW CAN OEMs REACH QUICK SOLUTIONS?

Specim offers camera SDK and ASCII control protocol to system integrators and OEMs who integrate the FX cameras to your own system software solutions.

For system integrators who want to have a turnkey data acquisition, real time processing and process control solution, the SPECIM FX cameras are directly compatible with several commercial software tools. Please contact SPECIM with your requirements, and we will guide you to a suitable solution provider.

SPECIM FX PERFORMANCE IN SORTING

Spatial resolution	1 – 1.5 mm across 1 m wide process line
Process line speed	up to 3 m/s
Field of view	Several lens options from 12 to 95 degrees
Camera interface	Camera Link or GigE
IP class	52
Operational mode	SPECIM FX cameras are line imaging spectral cameras, perfectly fitting to continuously moving process lines