### Real-time gas detection & identification

**REVEAL D&I** 

#### CHEMICAL IMAGING SOFTWARE FOR HYPERSPECTRAL DATA

Reveal D&I is designed specifically for the detection and identification of gas emissions. This powerful software allows real-time detection of a large portfolio of gases simultaneously.



Reveal D&I is designed for use with the Telops Hyper-Cam, the leading standoff infrared hyperspectral imaging sensor.

### **Applications**

#### **DEFENSE AND SECURITY:**

- Monitoring of
  - Chemical Warfare Agents (CWA)
  - Toxic Industrial Chemicals (TIC)
  - Volatile Organic Compounds (VOC)

#### **ENVIRONMENTAL:**

- Flare measurement
- Leak detection
- Pollution monitoring

#### OIL AND GAS:

- Leak detection
  - Combustible gases
  - Toxic gases
- Gas emissions monitoring

# Real-Time Detection

- Multiple gas detection
- Display of multiple gases simultaneously
- Covisualization with the visible image
- Visualization of the calibrated spectra



### Powerful Detection Algorithm

- Detection of complex gas mixtures
- Known or unknown background conditions
- High resolution hyperspectral images

Target 8 × Detection				
•	-0-		-	- 0
Search	Target	Formula	Colour	% PFA
1	Suffix hexafluence	SF6		3
V	Sulfur dioxide	SO2		6
1	Methane	CH4		6
	Benzene	C6H6		4
	Annonia	NH3	-	2
1	Ethylene	C2H4		5
	Propylene	C3H6		10
	Propane	C3H8		2

### **Interactive Software**

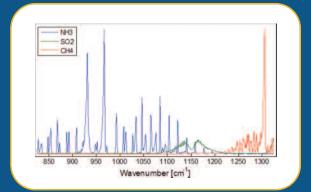
- Adjustable detection sensitivity
- User-defined target list and display
- Customizable detection display
- Visualization of calibrated spectrum at each pixel

## Automated Parameter Optimization

- Automated radiometric calibration
- Monitoring of system status
- Autofocus

# **Spectral Signature Manager**

- Compatible with existing spectral libraries including:
  PNNL (Pacific Northwest National Lab) library
- Importation of spectra



# **Additional Features**

- Rapid feedback for field test validation
- Direct results for ongoing experiments
- Control of configuration panel
- Visible detection history





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