# SOLUTION BRIEF

# Vision Airy Ft



# VISION[Ai]RY Ft FACIAL TRACKING & RECOGNITION SYSTEM

Vision[Ai]ry Facial Tracking (Ft) is the first in a suite of products that use video analytics to automate the functions of a camera operator. Vision[Ai]ry Ft uses Al-based facial recognition to detect, locate and track the position of faces within the video stream directly from the camera.

It then uses these facial positions to drive the pan, tilt and zoom axes of the robotic camera system to maintain the desired framing of the face or faces in the image. This eliminates the need for a camera operator to manually adjust for the position of the subject in the image.



### **CONSISTENT FRAMING**

Vision[Ai]ry Ft reduces the burden on the camera operator by eliminating the need for manual corrections of the camera position to compensate for day-to-day variations in talent seating position, posture, height, and more.



### HANDS-FREE CAMERA WORKFLOW

Framing settings can be saved to templates that can be automatically recalled with robotic presets to provide a hands-free camera workflow when combined with automated production control software such as OverDrive.



### HIGH QUALITY, ACCURATE TRACKING

Improves quality and consistency by automatically tracking on-air movements of the studio talent, driving the robotic camera to provide smooth, consistently well-framed images at all times, eliminating the reliance on a skilled operator.





# FEATURES





Vision[Ai]ry Ft's algorithm is trained against a diverse set of race, gender and age data, and can accurately identify and locate faces as long as at least 50% is visible in the image.

### Powerful User Interface

The clean, simple UI provides a live display of the video feed with detected faces and framing target clearly indicated, along with status info, tracking controls and framing template library.



### Adjustable Damping and Deadband

The damping and deadband settings allow the user to tailor the system behavior to the subject in order to maintain optimal framing and tracking while eliminating undesirable movement and overshoot.



### Automatic Zoom Compensation

Vision[Ai]ry Ft automatically calibrates the camera lens and adjusts tracking gain to avoid over-reacting at higher zooms, where small pan or tilt changes result in larger changes in framing.



### **Unlimited Number of Framing Templates**

Framing templates allow all framing parameters to be stored and recalled, enabling the user to create an unlimited number of shot compositions that can be instantly applied to any camera.



### **Recall Templates with Robotic Presets**

By linking a framing template to a robotic preset, the desired framing parameters are automatically recalled and applied to the camera.

Specifications	Vision[Ai]ry Ft
Number of robots controlled	No fixed limit
Minimum PC requirements	i7 (9th gen or later) -2.9 GHz, 8 cores, 8 GB RAM, Intel integrated graphics, Solid State drive
Video sources	Local, eg: SDI capture card NDI
Number of faces that can be tracked simultaneously	Up to 30
Minimum size of face in video	Min 9% of frame
Minimum visibility requirement	50% of face
Video formats	1080p/59.94 or 50, 1080i/59.94 or 50 720p/59.94 or 50 720i/59.94 or 50
Tracking latency*	<0.2s
Face Detection time	<0.5s

\*Delay between when the tracked subject moves outside the deadband and the camera starts to move.





## ARCHITECTURE DIAGRAM





www.rossvideo.com/VisionAiryFt

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