

VXtrack dynamic tracking MODULE

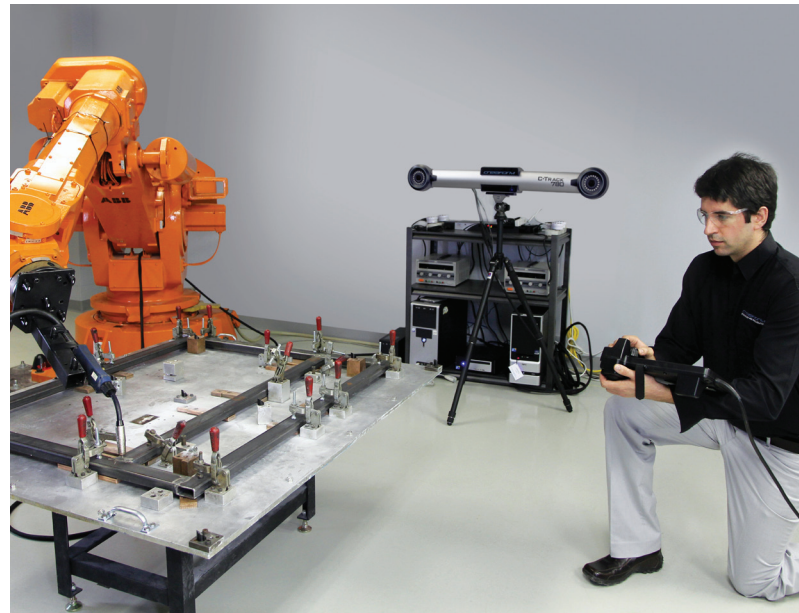
THE **VXtrack** DYNAMIC TRACKING MODULE IS A KEY COMPONENT OF **TRUaccuracy™** TECHNOLOGY, WHICH GUARANTEES THE HIGHEST PRECISION. TEAMED WITH THE **C-Track** DUAL CAMERA OPTICAL SENSOR, THE **VXtrack** MODULE CAN BE USED TO **SIMULTANEOUSLY** AND **CONTINUOUSLY MEASURE** POSITIONS AND ORIENTATIONS IN SPACE WITH **GREAT PRECISION**, WHICH MAKES IT POSSIBLE TO CONTROL DISPLACEMENTS, DRIVE ASSEMBLY PROCESSES OR MEASURE DEFORMATIONS.

COMBINED WITH THE **HandyPROBE** ARM-FREE CMM, **VXtrack** PROVIDES A COMPLETE PORTABLE 3D MEASURING SOLUTION OFFERING BOTH **PROBING INSPECTION** AND **DYNAMIC MEASUREMENT** CAPABILITIES. FURTHERMORE, THE PROBING STYLUS IS VERY USEFUL FOR ALIGNING PARTS WITH RESPECT TO A REFERENTIAL (DETERMINED THROUGH A GROUP OF REFLECTORS), ALLOWING FOR **MOVEMENT OR DEFORMATION MONITORING** DIRECTLY ON THE PART'S REFERENTIAL.

THE **VXtrack** MODULE HAS NUMEROUS APPLICATIONS, INCLUDING ROBOT CALIBRATION AND GUIDANCE, MONITORING OF COMPLEX ASSEMBLY PROCESSES, REAL-TIME COMPENSATION OF MACHINING TOOL-GENERATED ERRORS AND MONITORING OF DEFORMATIONS DURING TESTING.

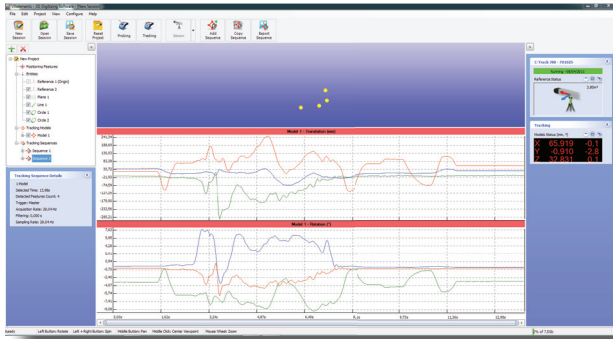
BENEFITS OF THE VXtrack DYNAMIC TRACKING MODULE

- **TRUaccuracy™** technology that guarantees the highest precision, in the lab or on the shop floor
- Simultaneous measuring of the set of reflectors, for increased 6 DOF precision (position and orientation)
- A complete inspection and dynamic measurement solution integrating the HandyPROBE portable CMM and compatible with the MetraSCAN optical CMM 3D scanner
- Passive (wireless), low cost and ultralight (<1g) reflectors, available in adhesive or magnetic versions and 100% compatible with photogrammetric measures (for resetting with a global measure in the case of large equipment)



MAIN FEATURES

- Rate of up to 24,000 3D points per second with oversampling (3000 without oversampling)
- 6 DOF measuring (position and orientation) of a rigid set of reflectors
- Synchronous measurement of the reflector set
- Measuring volume from 3.8 to 14.8 m³ (133 ft³ to 518 ft³)
- One unique system for 3D inspection and 3D dynamic measurement
- Real-time curve display in VXelements
- Export to .csv format
- API for interfacing with third-party applications
- Acquisition synchronization capability through external trigger input



APPLICATIONS BY INDUSTRY

Aerospace:

- Assembly control and monitoring
- Deformation monitoring (wings, landing gears, tires)

Automotive:

- Movement monitoring on running parts (engine, exhaust, wheels)
- Dynamic process control (closing of doors and hood)
- Deformation monitoring (chassis, seats)
- Crash test preparation (pre-positioning)

Robotics:

- On-site calibration and assessment
- Real-time course correction
- Computerized guidance of assemblies

Biomechanics:

- Motion capture

TECHNICAL SPECIFICATIONS	VXtrack + C-Track 380	VXtrack + C-Track 780	VXtrack + C-Track 1480
MEASUREMENT RATE (REFLECTORS/S) ⁽¹⁾	Up to 3,000	Up to 3,000	Up to 3,000
MEASUREMENT RATE WITH OVERSAMPLING (REFLECTORS/S) ⁽¹⁾	Up to 24,000	Up to 24,000	Up to 24,000
REPEATABILITY (mm/in.) ⁽²⁾	Up to 0.0025 / 0.0001	Up to 0.0025 / 0.0001	Up to 0.0025 / 0.0001
VOLUMETRIC ACCURACY (mm/in.) ⁽²⁾	0.057 / 0.0022	0.065 / 0.0026	0.130 / 0.0051

⁽¹⁾ For 100 reflectors

⁽²⁾ RMS value

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