Axis synchronisation
With nanosecond level jitter

Stage & AIS control
Stage and active isolation system control in real-time

Trajectory management
Outstanding trajectory management

ULTIMET ADVANCED
Motion controllers

Engineered for semiconductor equipment
Suitable for all high-end positioning systems

ULTIMET ADVANCED motion controller offers unparalleled performance and flexibility for advanced motion control applications.

ULTIMET ADVANCED is a robust and versatile multi-axis motion controller, designed to meet the evolving demands of modern industrial processes. Featuring a quad-core processor with one core dedicated to user-defined control algorithms, it provides exceptional intrinsic performance and flexibility to customize control strategies for various applications.

The controller supports ETEL Software Modules (ESM) for platform enhancements and offers seamless integration with existing motion systems.

HIGH-PERFORMANCE COMPUTING
This system boasts outstanding computation power within our real-time control architecture, enabling complex tasks to be executed locally without compromising performance.

DATA PROCESSING CAPABILITIES
Its real-time operating system allows for local data processing and logging, enhancing machine performance without compromising motion control precision.

EXTENDED INTERFACING
The controller's enhanced interfacing capabilities facilitate direct integration of additional sensing devices into the control loop, improving both performance and throughput.

COST-EFFECTIVE SOLUTION
It comes with a free embedded real-time operating system, eliminating the need for expensive dedicated hardware or software licenses.
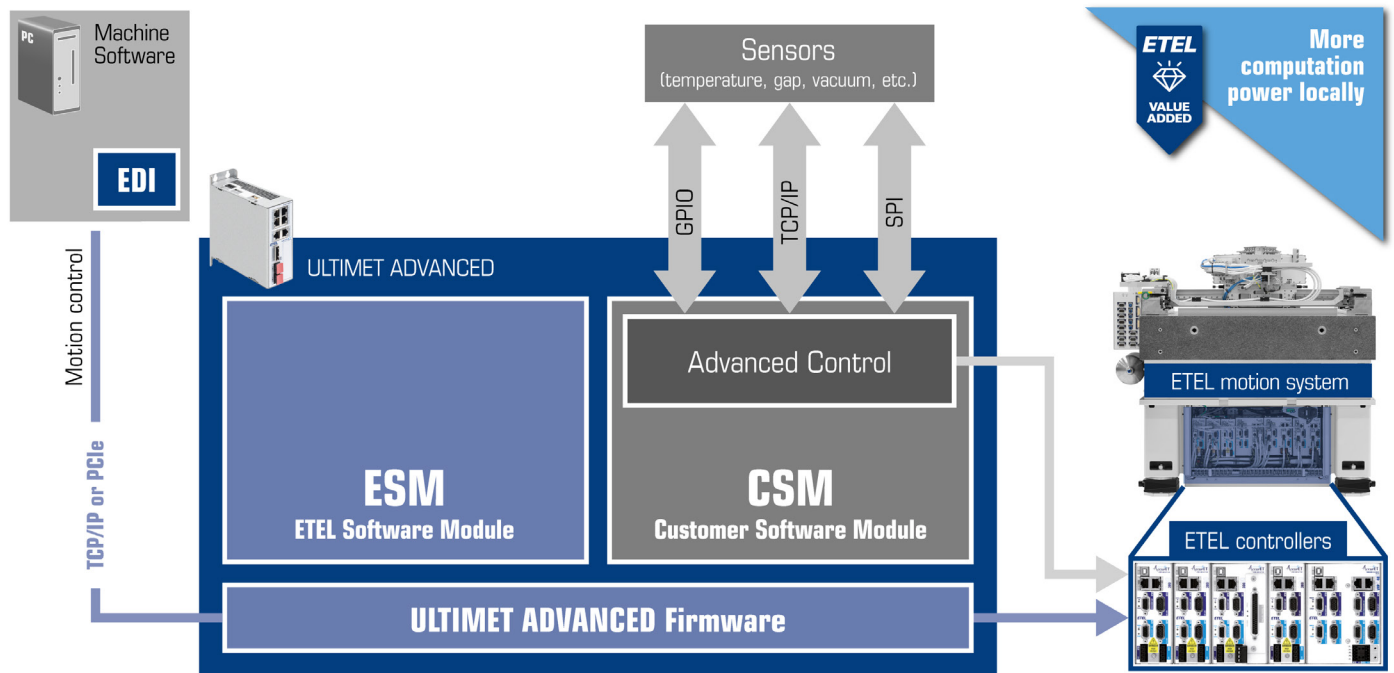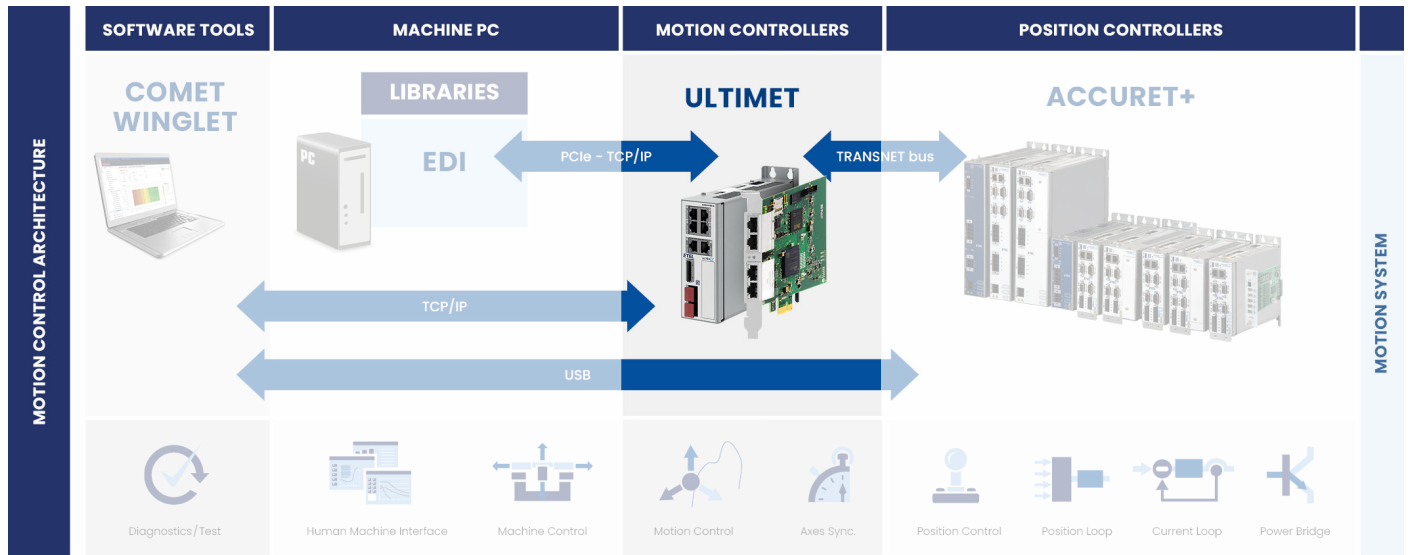
EASE OF INTEGRATION
With the same footprint and mounting principle as the AccurET48 position controller, ULTIMET ADVANCED offers easy installation and seamless upgrade options for existing configurations.

USE CASES
The open-core architecture can be applied in various scenarios to enhance process performance, capabilities, and overall reliability across multiple industries.

- **Quad-core ARM processor with a dedicated user core**
- **Hosts a real-Time operating system for user code**
- **Supports active isolation systems (QUIET) and advanced metrology architectures**
- **Opens more interfacing options for machine control**

Motion Control Architecture

SOFTWARE TOOLS	MACHINE PC	MOTION CONTROLLERS	POSITION CONTROLLERS
COMET WINGLET	LIBRARIES / EDI	ULTIMET	ACCURET+

PCIe - TCP/IP
TRANSNET bus
TCP/IP
USB

MOTION SYSTEM

Diagnostics / Test · Human Machine Interface · Machine Control · Motion Control · Axes Sync. · Position Control · Position Loop · Current Loop · Power Bridge

Machine Software
PC
EDI

Motion control
TCP/IP or PCIe

Sensors
(temperature, gap, vacuum, etc.)

GPIO · TCP/IP · SPI

ETEL VALUE ADDED

More computation power locally

ULTIMET ADVANCED

Advanced Control

ESM
ETEL Software Module

CSM
Customer Software Module

ULTIMET ADVANCED Firmware

ETEL motion system

ETEL controllers

More info

Ver. 1.1

PRECISELY. **ETEL**