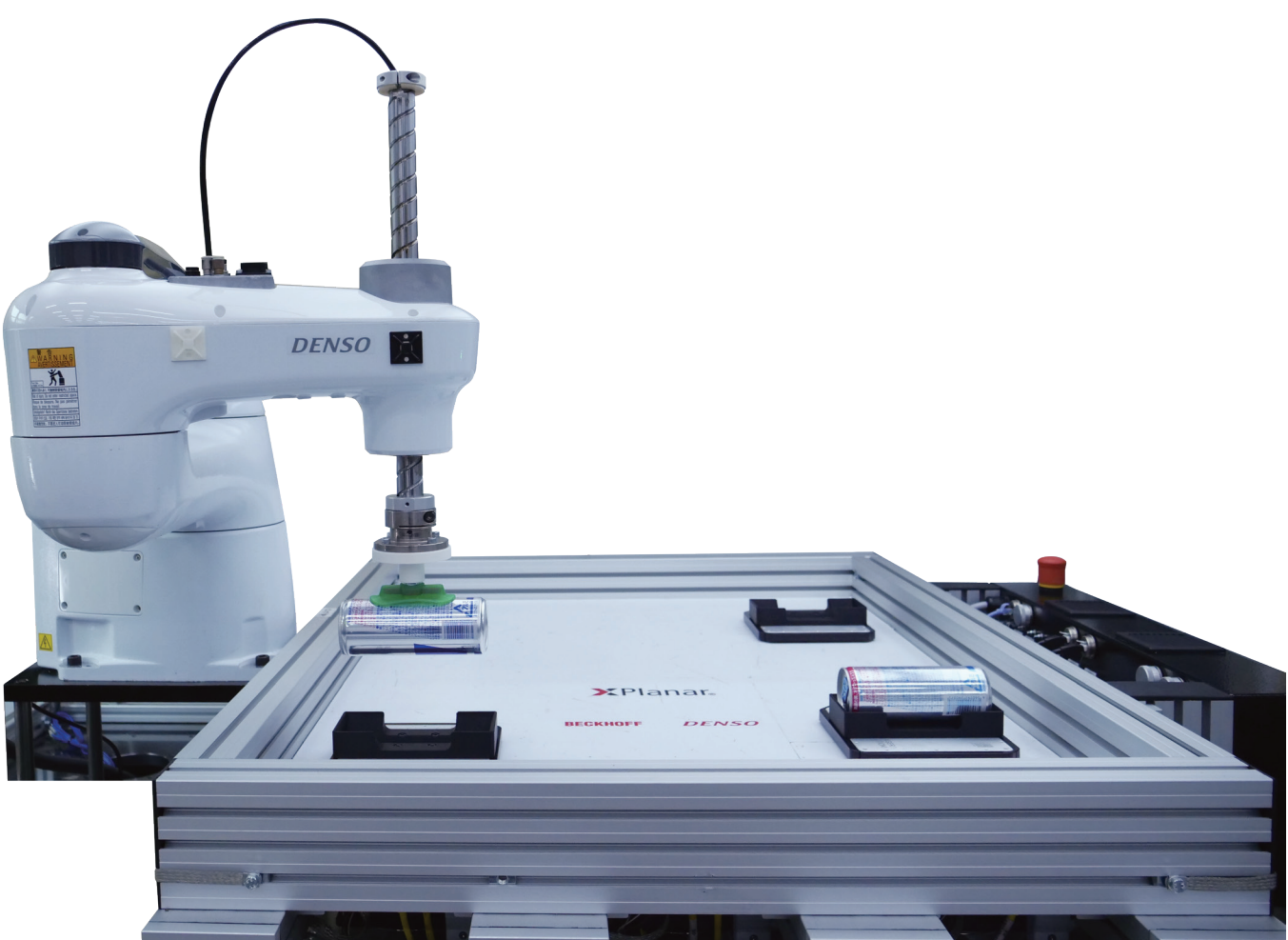**DENSO**

Real-time synchronous control with eXtended planar motor system XPlanar

- Integrated control utilizing TwinCAT enables real-time synchronous control of robots and XPlanar for "Non-stop robots."

- Robots can track XPlanar and can be controlled to quickly move along a desired path above tiles, allowing you to build the fastest application ever.

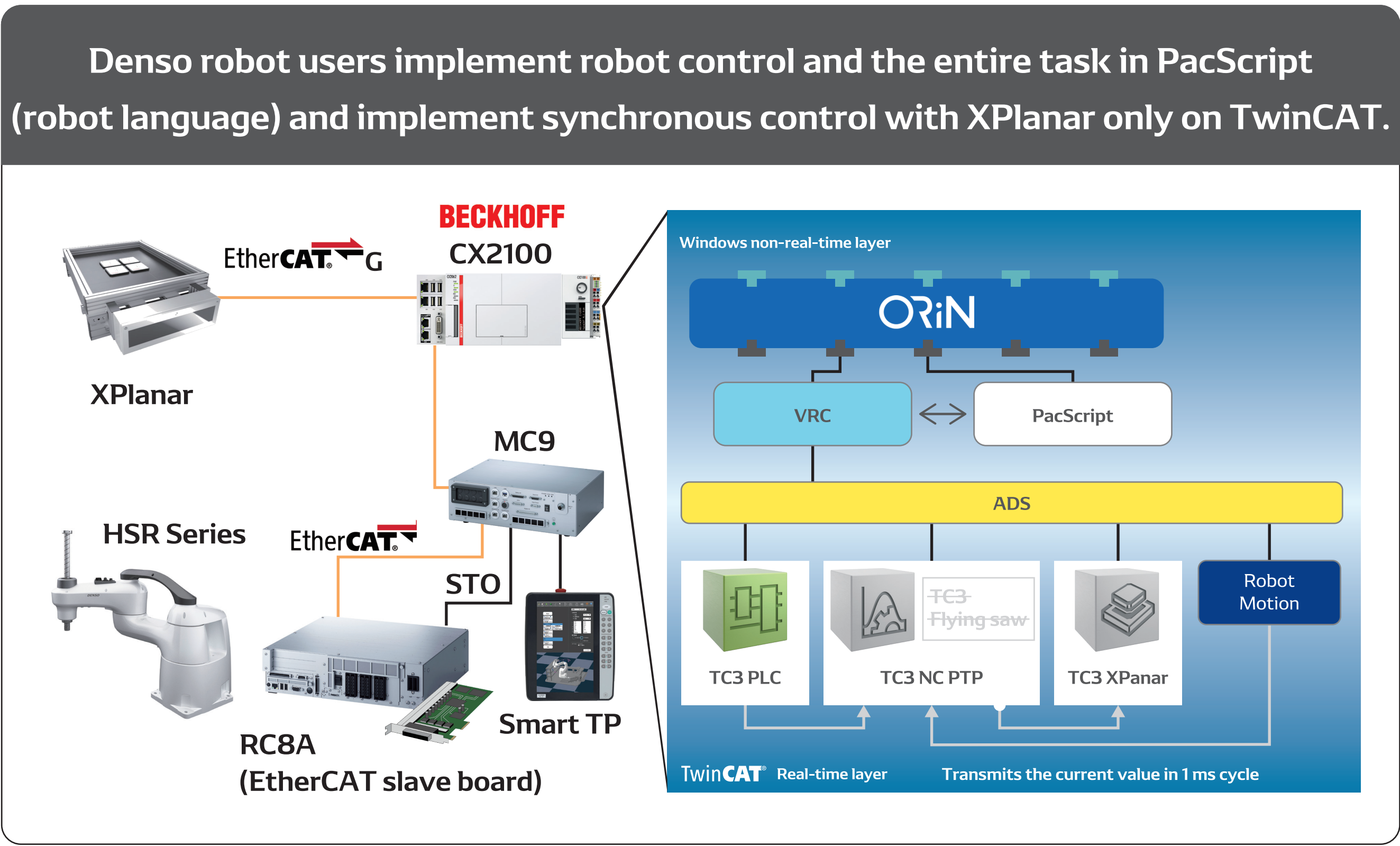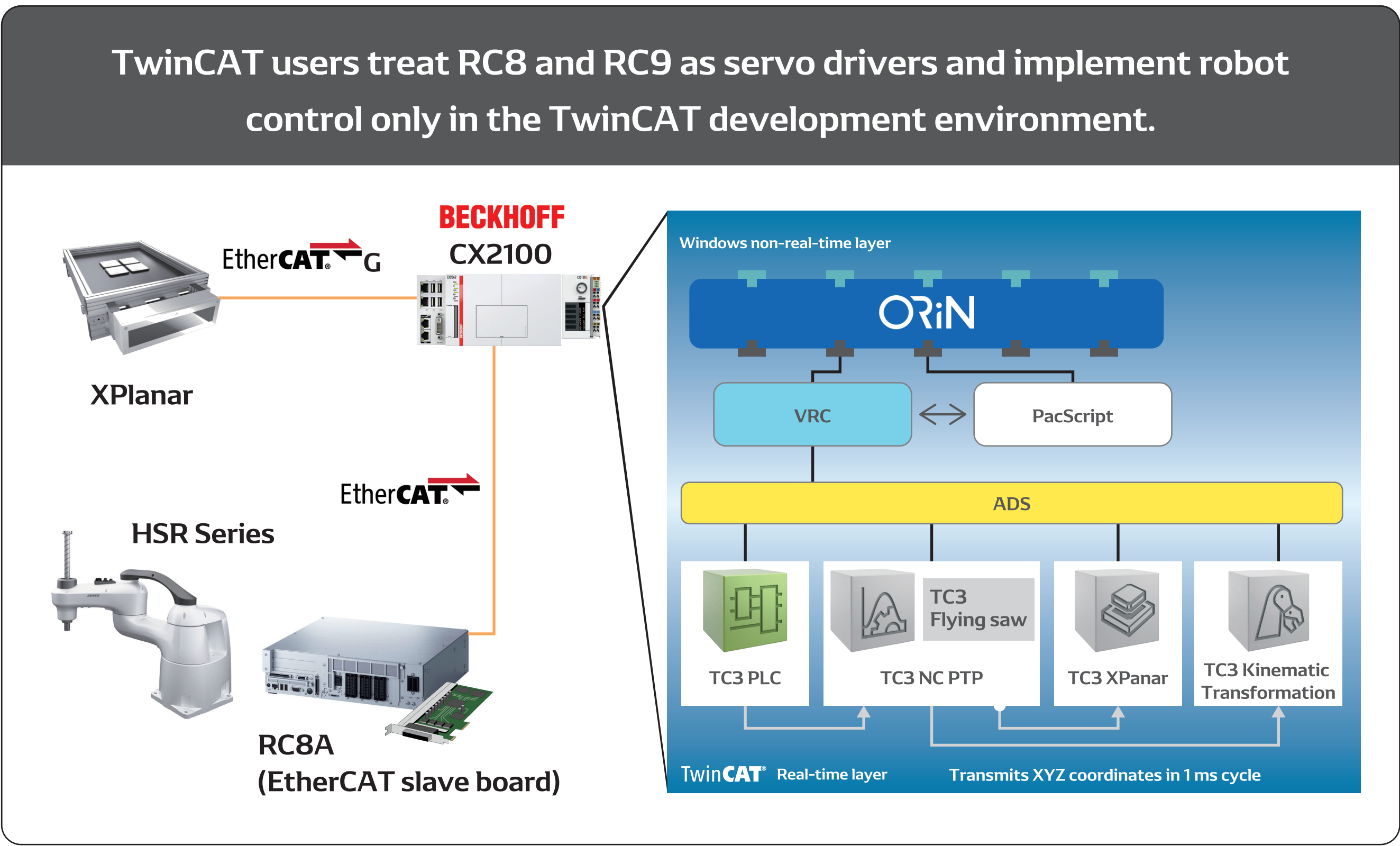## High-speed, high-accuracy tracking without stopping robot motions

RC8 can control robots from IPC in real time using an EtherCAT slave. With RC9, robot control is implemented on TwinCAT to facilitate the implementation of real-time synchronization with external devices.

These features enable high-speed, high-accuracy tracking motions of XPlanar movers and robots.

Users can choose their familiar development environment.

MC9 enables RC8A-compatible robots to be controlled in the RC9 development environment, making it possible to take advantage of RC9's expanded functionality and increased functionality.
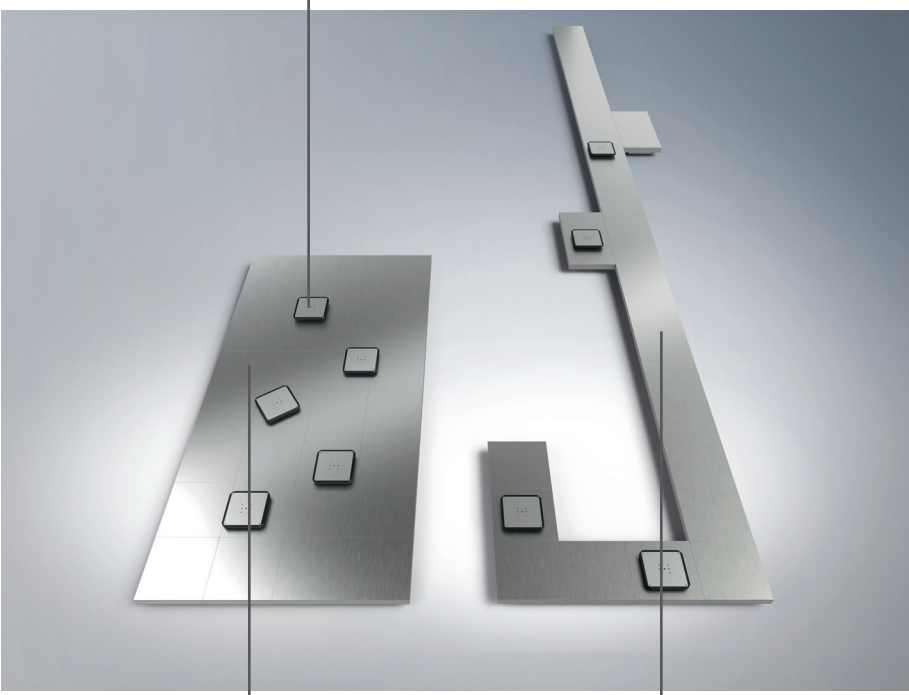
TwinCAT users treat RC8 and RC9 as servo drivers and implement robot control only in the TwinCAT development environment.

EtherCAT G
BECKHOFF CX2100

XPlanar

HSR Series

EtherCAT

RC8A
(EtherCAT slave board)

Windows non-real-time layer

ORiN

VRC ↔ PacScript

ADS

TC3 PLC | TC3 NC PTP | TC3 Flying saw | TC3 XPanar | TC3 Kinematic Transformation

TwinCAT Real-time layer — Transmits XYZ coordinates in 1 ms cycle

Denso robot users implement robot control and the entire task in PacScript (robot language) and implement synchronous control with XPlanar only on TwinCAT.

EtherCAT G
BECKHOFF CX2100

XPlanar

MC9

HSR Series

EtherCAT

STO

RC8A
(EtherCAT slave board)

Smart TP

Windows non-real-time layer

ORiN

VRC ↔ PacScript

ADS

TC3 PLC | TC3 NC PTP | TC3 Flying saw | TC3 XPanar | Robot Motion

TwinCAT Real-time layer — Transmits the current value in 1 ms cycle

XPlanar®

(Guideless Floating Transfer System)

XPlanar movers with built-in permanent magnets generate a magnetic field, and the XPlanar tiles with built-in coils detect the mover positions and cause the movers to float

XPlanar tile 240 x 240 mm

Plane layout

Track layout

With XPlanar, users can create any desired path according to the application.