





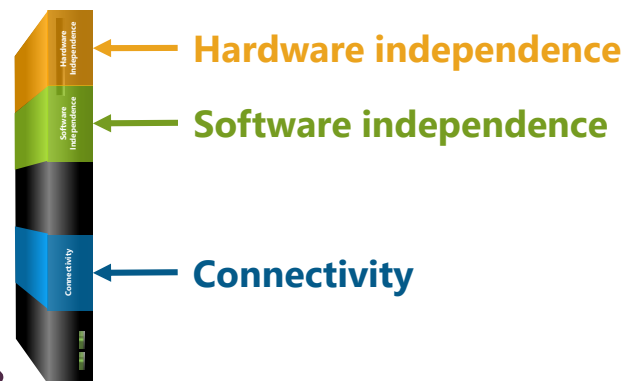
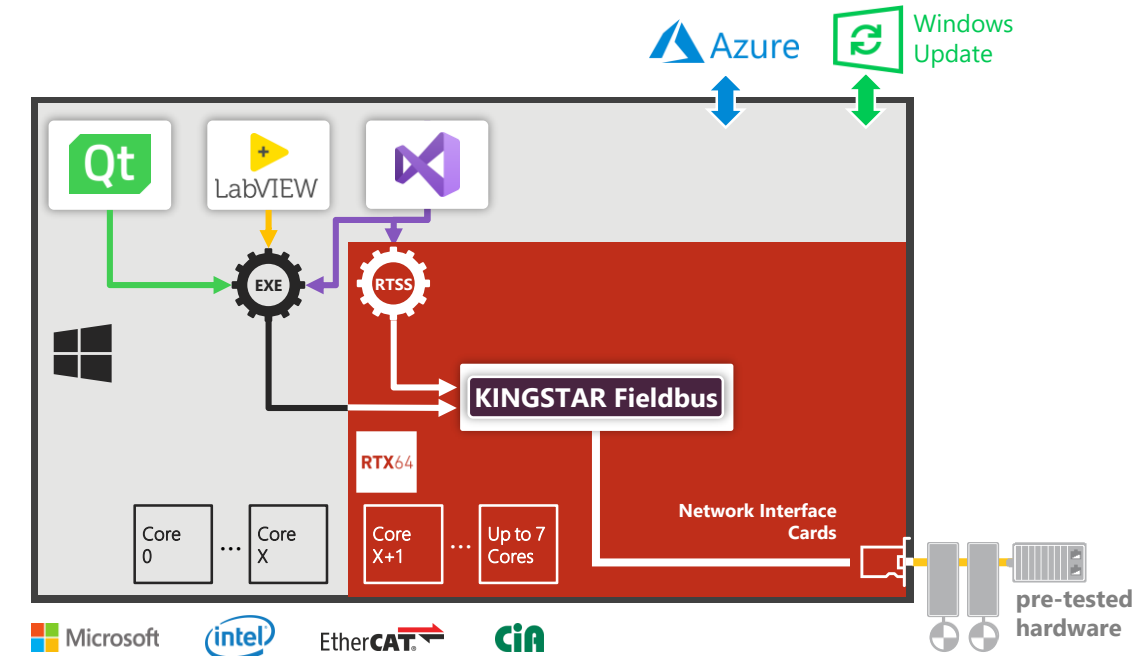
IntervalZero RTX64

- Hard real time extension to Windows
- Native 64 bits
- SMP (up to 63 cores)



EtherCAT stack



- Plug&Play with autoconfiguration
- Configuration tools (ESI Import)
- Multiple master instances
- Hot Connect
- Cable Redundancy
- High Speed option up to 100us cycle time

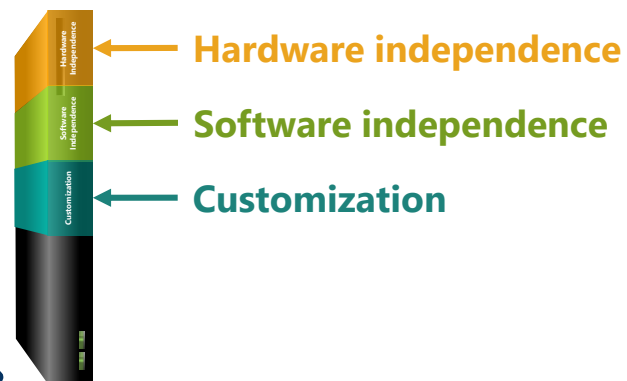
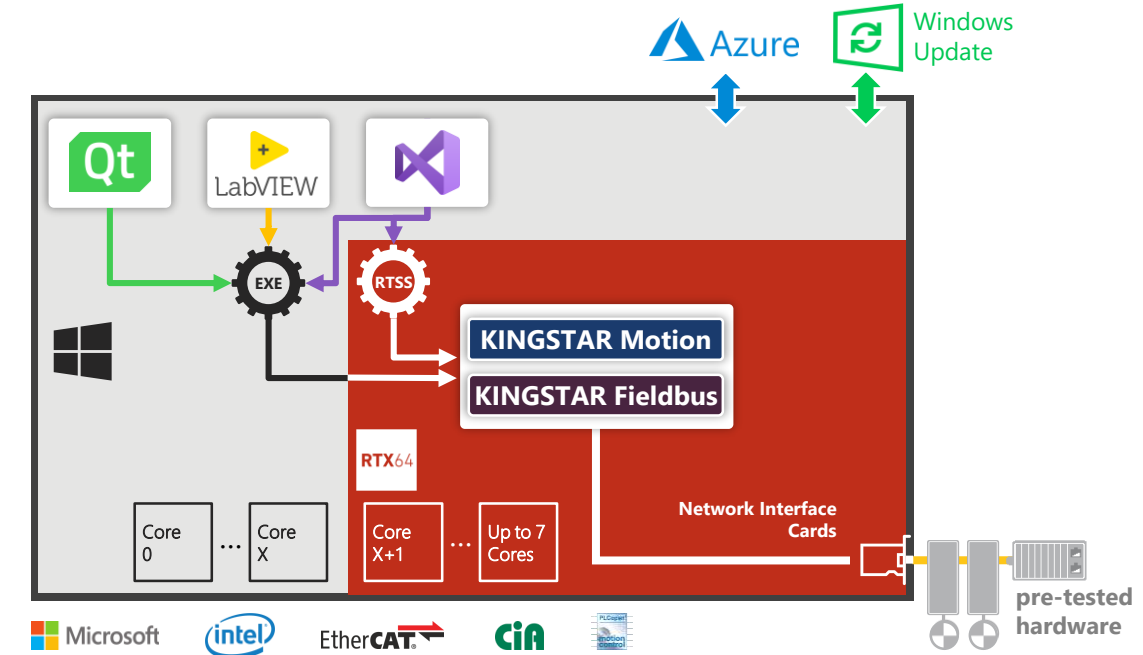


- **PC Based with scalable x86 CPU**
- **Windows benefits:**
 - Azure,
 - Microsoft Updates,
 - Third Party catalog
 - Multiple development environments (Visual Studio, Qt, LabView)



Motion

- PLC Open standard libraries 
- CAN Drive Profile 
- Independent Algorithm for each axis
- Basic Motion – Point to Point motion
- Synchronization (CAM, Gear, Group)
- Interpolation (Look ahead / Blended Motion)
- Kinematics
- Tools: Tuning, Scope

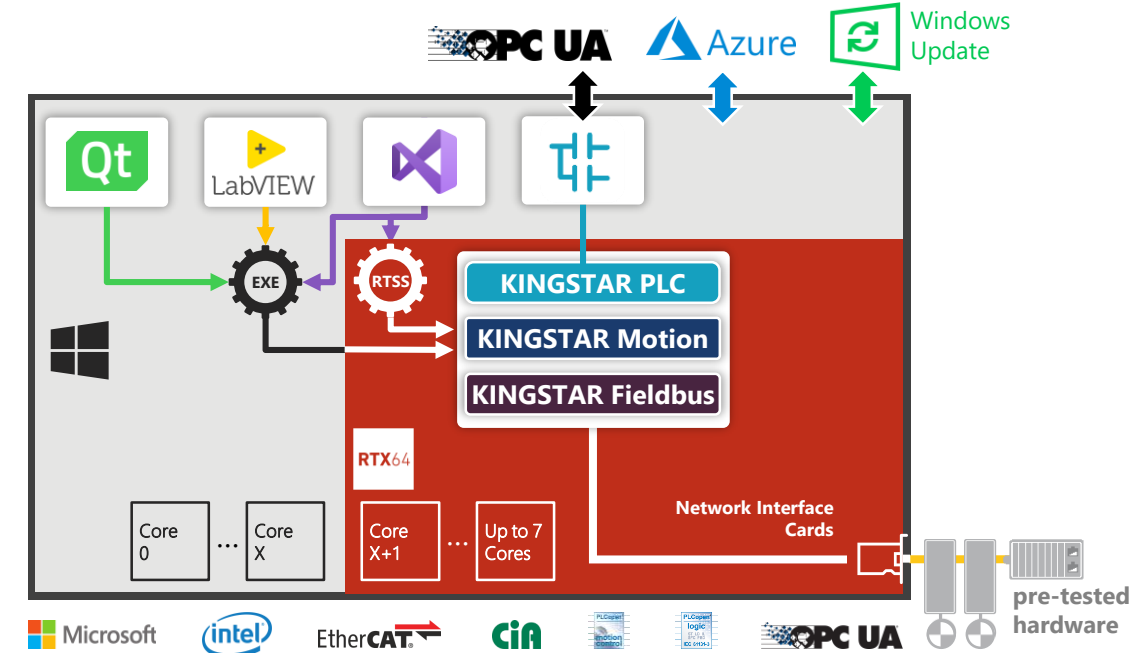


- **Standard motion API and use cases:**
 - Real time motion application
 - Motion board like (Win32 or .NET development)
 - Integration of your own motion



KINGSTAR PLC based on Logiclab from Axel Software

- IEC6131-3 development environment and languages
- Live debug with breakpoints
- Trace Real Time
- Easy Customization
 - C++ Libraries
 - Graphical libraries
 - Embedded IDE for end-user
- Incremental compilation and hot download
- Simulator
- OPC UA Server
- HMI Option

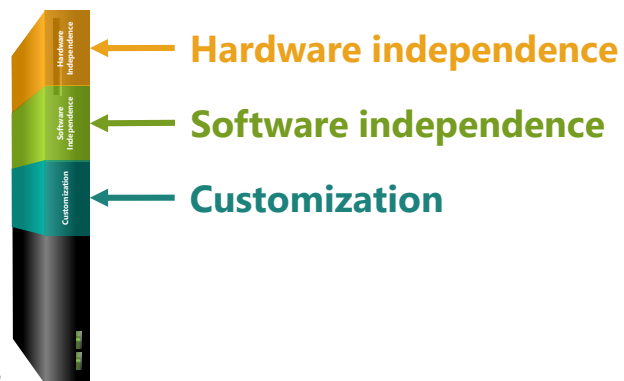
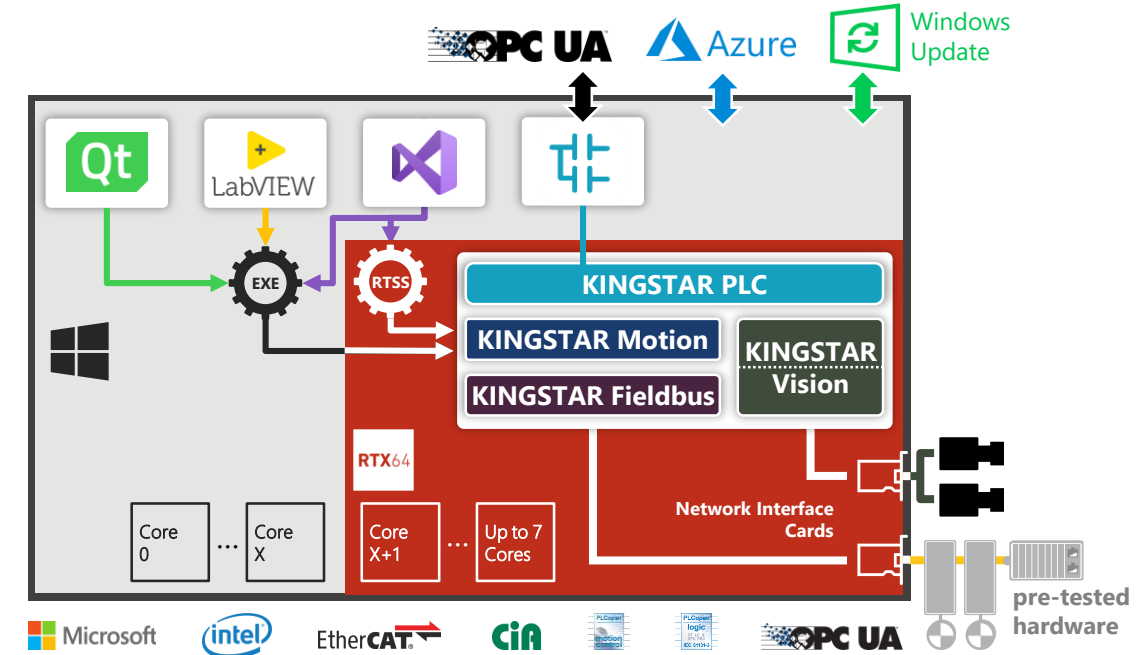


- **KINGSTAR Open PLC Motion Lib available in C&C++ or in IEC61131-3 languages**
- **Mix C++ application and PLC application on the same controller**
- **Add your own algorithm or UI to the IEC61131-3 IDE or in C++**
- **OPC UA for connectivity**
- **KINGSTAR configuration tools integrated in the IEC61131-3 IDE**



KINGSTAR Vision

- Real-Time GigE Vision filter and Interfaces
- Easy Customization
 - Discover cameras on the network
 - Configure them
 - And acquire image data in real time
- Versatile usage :
 - as a frame grabber for 3rd party vision
 - in real-time with OpenCV libraries
- Support for a number of common NICs
- Camera Setup Tools

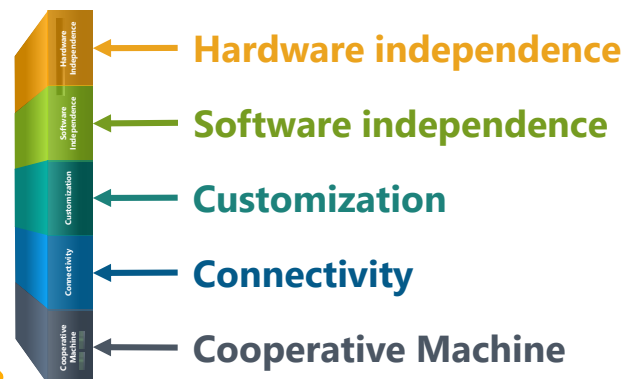
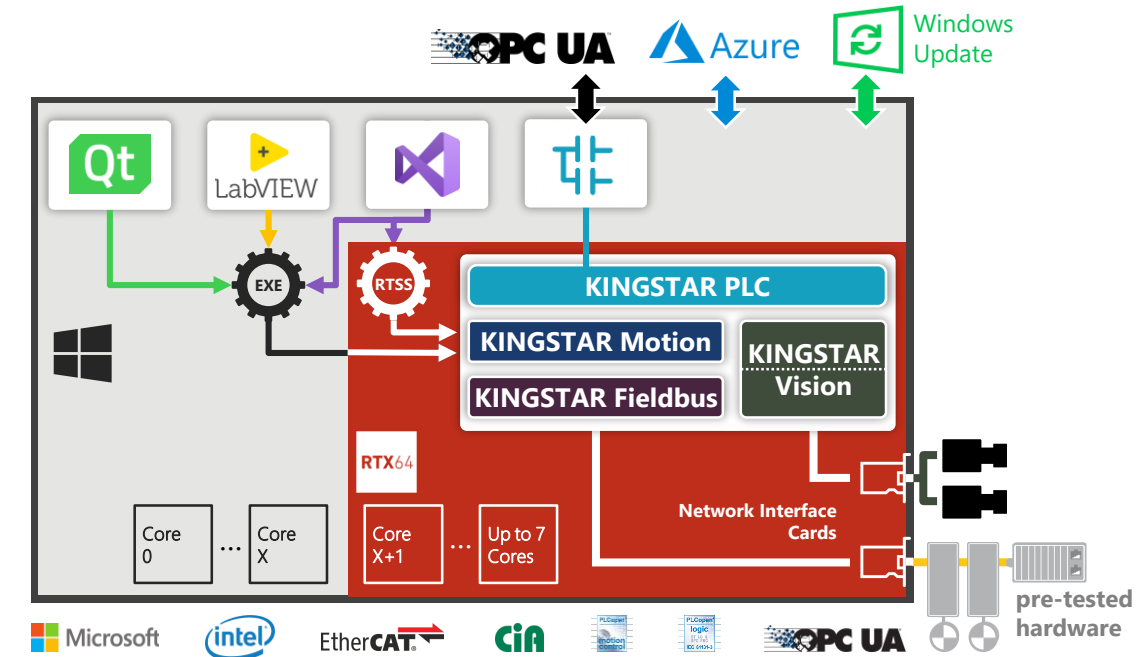


- *Replace frame grabber cards*
- *Vision controlled motion*



KINGSTAR IoT

- Machine to Machine connectivity
- Machine to Cloud (OPC UA, Modbus)
- Microsoft Azure
- Microsoft Update and Security features
- Framework for data sharing and local data processing



- **Build an Industry 4.0 controller**

Embraces Industry 4.0 with connectivity features such as OPC UA, Azure...

Designed for smart integration

EtherCAT and Motion API access from any IDE

Open for any third party application running on Windows



Multiple concurrent applications on one network

Add your own algorithm or build your new controller on top of KINGSTAR platform



KINGSTAR

IntervalZero

Thank You