

# Real-time Operating Systems and their Main Characteristics

Real-time Operating System	Manufacturer	Supported CPU-architecture	Special Characteristics	Features/ Limitations	Suitability for Safety-Applications	Link to Website
<b>QNX</b>	BlackBerry	x86_64, AArch64  (32-Bit architectures for QNX versions older than 8.0)	Microkernel architecture	Very high scalability, POSIX API, wide range of functions regarding network and security, extensive ecosystem	✓	<a href="#">QNX</a>
<b>VxWorks</b>	WindRiver	x86, x86_64, AArch64, AArch32, PowerPC, RISC-V	Supports software development with Rust	Wide range of functions regarding network and security, extensive ecosystem	✓	<a href="#">VxWorks</a>
<b>Embedded Linux (Yocto)</b>	The Yocto-Project	x86, x86_64, AArch64, AArch32, PowerPC, RISC-V	Open source, creation of an SDK-target platform for 3rd party software development	Access to the extensive Linux OS options / real-time features might be limited	✗	<a href="#">Embedded Linux (Yocto)</a>
<b>OS-9</b>	MicroSys	x86, AArch32, 68K, PowerPC	-	-	✗	<a href="#">OS-9</a>
<b>RTX64</b>	IntervalZero	X84_64	Real-time extension for Microsoft Windows (64-Bit)	WIN32 API, highly optimized stack for Industrial Ethernet	✗	<a href="#">RTX64</a>
<b>INtime</b>	TenaSys	x86, x86_64	Real-time extension for Microsoft Windows (32-Bit and 64-Bit), Even without Windows usable as standalone RTOS with an identical API	WIN32 API, highly optimized stack for Industrial Ethernet	✗	<a href="#">INtime</a>

**Note:** The characteristics mentioned are based on the manufacturer's specifications and on our own experience with the respective systems. All information is supplied without guarantee.