COMPARISON of .NET classes/controls vs. OPC

Topic	.NET Classes	OPC
Technology	Basis for all long-term software technology infrastructures by MS.	Based on COM & DCOM (obsolete in 2003 when .NET introduced).
History	This concept was introduced in 1991 as VBX, name changed to ActiveX in early 1996. Upgrade to .NET classes in 2003	Introduced in 1997.
Integration	In-Process server integrated into one single application.	Out of process with multiple applications
HW Needs	Extremely light weight.	Very heavy, resource intense, layered
Longevity	Well defined interface. A very solid foundation to begin with.	The specification has been a moving target.
MS Support	Almost every Microsoft product supports it.	No MS product has native support. OPC automation layer is needed.
ISV Support	Thousands of companies support it world-wide.	Very few companies support OPC
Performance	Extremely fast and low resource consumer.	Slow and heavy on resources.
Licensing	Typically run-time licenses are free.	Must pay for each PC/node.
Variety	Only one application needed.	Must run multiple applications.
Installation	Single file, simple copy to target PC.	DCOM very complicated unless using on the same PC & from the same vendor.

OPC-UA (2012)

Relieves some issues. But is still very resource intense. Very complicated to setup.

11/7/2022