## COMPARISON of VB.NET vs. VBA (used by 3<sup>rd</sup> party HMI/SCADA)

Topic	VB.NET	VBA
	TECHNICAL	
Introduction	1991	1995 as macro replacement for MS Excel.
Run Speed	true compiled app. Object code runs fast.	Interpreted @ every line. Runs relatively slow.
Target Apps	Robust mission-critical industrial grade	non-critical office grade amateur apps
Popularity	Most popular software – world's about 70% Windows apps are developed with it.	It is a crippled sub set of VB6.
General	VB3 Created the basis for VBA & VBscript in 1995, and in 2010 for VBA7.	Runs as a separate shell and thus is 3 <sup>rd</sup> party app running within the vendor's software
Extensibility	Very powerful and extendible	Special functions are added to VBA engine by vendor to make it proprietary for a product.
Run-time	No run time fees to MS for distribution.	Most vendors charge a license/copy
Number of Variables	Unlimited	100000
Multi-Threading	Yes	No
OS bits	64-bit and or 32-bit	32-bit
Framework	Based on New .Net, WCF, WPF	Based on legacy COM/DCOM
Object Limit	Unlimited	1207
Updates	Contemporary	No New versions since 2007 as VB6.5. MS stopped sub-licensing to 3 <sup>rd</sup> parties since 7/1/2007.
	COMMERCIAL	
# of Copies Sold	Millions sold by MS	Limited sales by Vendor
Price of product and supporting components	MS VB .NET, SQL Server Express Edition Free. Other versions very Inexpensive.	Vendor pays a very high price to MS to allow them to embed it into their products.
Procurement Source	Any MS Products Resellers.	Not available in open market
Training centers	MS University to small Mom/Pop outfits	Few
Books available at store	Hundreds	Very few