

# Getting Started

## Welcome to FactoryStudio powered by FrameworkX

FactoryStudio is a powerful platform that allows users to develop and deliver applications that manage real-time information as well as provides a complete set of modules in a unified and intuitive engineering user interface.

### Unlimited

FactoryStudio is a 100% .NET managed code application which enables users to take advantage of the full potential of current technology.

### Flexible

FactoryStudio was architected from a “green field” and was created entirely without the employment of any legacy code; this made it possible to create a system that is powerful and simple to use. FactoryStudio projects can scale from local, embedded devices and mobile applications all the way up to large, distributed, high performance, fault-tolerant systems. Additionally, FactoryStudio aims to be a unified and complete solution for all issues related to developing and delivering applications: users do not need to build confusing, complex puzzles to build a project. Having a design that is unified from the ground up enables users to create a flexible system that maintains an intuitive, easy to use design.

### Complete

FactoryStudio is a complete solution with all modules included. The included standard features are: a real-time tag and asset database, user templates, alarms and events, historian, SQL tables and queries, recipes, XML, CSV, XPS and PDF reports, built-in SQL database engine and web server, scripting, scheduling, OPC server and client, native communication protocols, graphical designer, user interface displays accessible from desktops, remote smart clients, as well as web browsers and native iOS app on iPads and iPhones.

In this section...

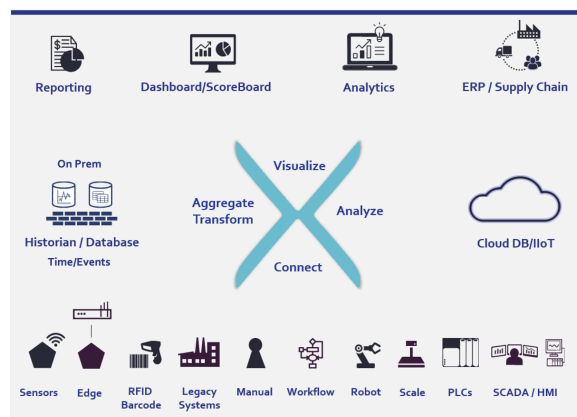
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#### A solution for today and tomorrow

FactoryStudio has longevity and high ROI since it consolidates current technology.



## The FactoryStudio Platform

The FactoryStudio platform provides a single engineering environment. This enables users to take full advantage of their systems by providing the richest experience in leveraging data from a variety of runtime environments and mobile devices.

The FactoryStudio platform provides:

**Hardware and Operating System independence** since the same product installs on different versions of Windows and includes communication interfaces for a large variety of industrial equipment and protocols. Projects can be deployed to run on either Windows or Linux operating systems.

**Friendly and collaborative engineering** that aids the life of the developer by offering a new multi-user and multi-project environment which has resource optimization for editing and running multiple, simultaneous projects.

**The ability to easily manage projects** since individual projects are saved in one single file and are organized by SQL tables in an encrypted database. Access, edit, and run your projects from either local or remote computers.

**Smart tag editing** that facilitates the creation of powerful data models through advanced types, templates with hierarchy, arrays, categories, Intellisense for editing, cross-references, and other unique features.

**Vector graphical interface.** WPF designer tools deliver a visually impactful user experience through resolution independence, and it supports publishing pages for rich clients, .NET click-once thin clients, HTML5 pages, mobile and iOS native apps.

**A native SQL database** and easy integration with other banks such as Oracle, ODBC, ADO.NET or OLE-DB, MySQL, and Microsoft SQL Server.

**Tag data logging and historian** to any database and an advanced trend chart with annotations support.

**.NET scripts** that make FactoryStudio intrinsically safe since it is 100% .NET managed code. You can utilize both C# and VB.NET for scripting.

**Traceability and control project versioning** are suitable for high-performance teams because they allow users to have remote access and to simultaneously work on the same project's configuration.

**Communication drivers** that are for a wide variety of PLCs, using native protocols. FactoryStudio also provides a built-in OPC server and client, MQTT broker and client, and Sparkplug B support.

**Alarm and events** that include an audit trail and supports FDA 21 CFR 21 requirements.

**Reports and data access** API for integration with third-party tools.

**Online configuration**, project hot-swap and out-of-the box hot-standby deployment.

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## Applications



### Implement custom solutions

Applications delivered with FactoryStudio can range from a couple hundred to more than one hundred thousand communication points.

### Process Control & Data Aggregation

Process control stations require reliable server components and dedicated rich displays in order for security to be enforced and for users to have full access to a computer's full power. FactoryStudio has every functionality needed to implement distributed mission critical process control applications.

### Mobile Native Applications

A native application provides a user interface quality and functionality that a web page cannot match. With FactoryStudio, iOS devices can natively run the same displays that are created for desktops

### SCADA, HMI and PIMS

In addition to having the entire spectrum of all expected SCADA functionality, FactoryStudio goes far beyond those and extends real-time database concepts toward IT systems: including objects such as data structures, dynamic arrays, images, time events, and data tables. All of this functionality has a tight connection to our supported .NET languages that are used when scripting items such as custom logic and calculation engines.

### HMI, Embedded and OEMs

FactoryStudio has a wide range of built-in PLC protocols and has a special version for HMI and embedded systems. The version control system, a small footprint, and remote access make FactoryStudio the best choice for machine builders and other OEMs.

### Performance Monitoring and BI

Factory Studio is an excellent tool to create operational dashboards because it has .NET integration, support for automation protocols and IT network management protocols, and the ability to create a presentation layer that is source independent and cloud-ready.

### SQL and PI Systems Front-end

FactoryStudio has many features to manage SQL databases, tables, and queries in real time. It also has SDK-level data synchronization with OSIsoft PI System(tm) and PI AF(tm). This makes it the number one platform to create custom dynamic graphics and front-end, custom user interfaces for these systems.

