



VISUALIZATION FOR VISIONARIES

# FactoryTalk OPTIX

Collaborative, Cloud-based Platform for  
HMI, IIoT and Edge Computing Applications



**Rockwell  
Automation**





# FactoryTalk<sup>®</sup> Optix<sup>™</sup> is for Visionaries

Inspired by our customers' need for innovative, flexible and powerful visualization software, Rockwell Automation<sup>®</sup> introduces FactoryTalk<sup>®</sup> Optix<sup>™</sup>—a modular, open, cloud-based and platform-independent HMI.

Benefit from components designed for the development and programming of intuitive, easy-to-use industrial applications. FactoryTalk Optix delivers value with modern technologies, collaborative design and scalable deployment options.

**If you can visualize it—you can build it with FactoryTalk Optix.**



# Design in ways you never thought possible

What if you could design equipment that's more flexible and easier to use, with an HMI that is intuitive to learn and maintain?

The ability to use data for real-time decision-making starts with visualization built on interoperability and openness, that is so easy to use that your operators can get right to work with an HMI automatically presented in their preferred language, regional settings, date and time format and style.

HMI designers need tools that help them more quickly create solutions and offer operators extraordinary ways to visualize and use data from the plant floor throughout the enterprise. Efficient manufacturing requires exceptional, easy-to-use, contextualized data with secure access around the clock and around the world.

The cloud-based FactoryTalk Optix visualization platform is a new approach to HMI built on openness and extensibility. A host of features makes the design process easier and more collaborative, while also offering you unmatched flexibility to tailor your application to meet operator needs. You benefit from improvements to your processes, efficiency, and deliverables—in one easy to access tool.



Designers can **shape a more productive future** by collaborating in the cloud, and fostering connectivity between diverse data sources, devices, and HMI.

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**Design In Ways  
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The Right Design  
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Only Pay  
for What  
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# Design systems that cost less to build, operate and maintain

## FactoryTalk® Hub™

What if you could collaborate across your automation design team with software and project content that is always up-to-date and with powerful tools that grow as you need them?

**45% of IT spending is expected to shift to the cloud by 2024—and OT is next.**

*Gartner*

FactoryTalk® Optix™ is enabled by FactoryTalk® Hub™, Rockwell Automation’s cloud platform, that allows you to unlock innovation like never before. FactoryTalk Hub is a single online destination to access comprehensive software-as-a-service (SaaS) manufacturing solutions that help you reach your goals. Log in to manage software-as-a-service subscriptions through a modern dashboard, facilitate collaboration across your team, and access the single source of truth for your operations.

FactoryTalk Hub harnesses the power of the cloud so companies can simplify software management while increasing productivity, get to market faster and design systems that cost less to build and provide more value over their lifetime.

FactoryTalk Hub is built with security at its core, so you can confidently build your design operations to become more agile, efficient and innovative using the cloud.



### Cloud-empower Your Workforce

Reimagine efficiency and instantly scale to meet demand by adding users, enabling access to projects, and turning on new software at the click of a button.



### Connect Your Design Teams

Intuitively collaborate and unleash your team’s full potential using software and project content that is always up to date and easily accessed from a web browser.



### Seize New Growth Opportunities

Use the latest digital automation capabilities to design, refine, and innovate faster—so you can create better systems and reach the market faster.

*FactoryTalk Hub is a central cloud-based platform for all your automation design needs, on demand.*

**New SaaS-enabled workflows enable your design team to collaborate anytime, from anywhere, thanks to built-in change tracking and versioning that automatically keeps track of who did what and when.**



# Achieve your HMI vision with new levels of collaboration, scalability and interoperability

## FactoryTalk Optix: An open, scalable platform with options

FactoryTalk Optix is a new way of approaching HMI, prioritizing extensibility and openness and seamlessly integrating with the latest technology. It enables you to build versatile HMI solutions that meet varied customer requirements today and adapt to changing needs and technologies tomorrow.

FactoryTalk Optix provides an open architecture along with options for design, deployment, graphics, and extensibility that enable you to create visionary applications for today's marketplace demands.

<b>Design Options</b>	<ul style="list-style-type: none"> <li>• Web browser-based application design and test</li> <li>• Collaborative workflows</li> <li>• Modifications from anywhere, anytime</li> <li>• Version management</li> <li>• Dynamically built projects</li> </ul>
<b>Deployment Options</b>	<ul style="list-style-type: none"> <li>• Flexible host hardware</li> <li>• Deploy to an industrial PC or closed terminal</li> <li>• Full-featured clients via web browser</li> <li>• Pay only for what you use</li> </ul>
<b>Graphic Options</b>	<ul style="list-style-type: none"> <li>• Responsive graphics</li> <li>• Reporting and dashboarding</li> <li>• Style sheets</li> <li>• Multi-language support</li> </ul>
<b>Extensibility Options</b>	<ul style="list-style-type: none"> <li>• Object libraries and customizable library management</li> <li>• Third-party drivers</li> <li>• IIoT connectivity</li> <li>• Full support for OPC UA companion specs</li> <li>• Open interface with C# scripting</li> </ul>



“FactoryTalk® Optix™ has given us the extensibility to build a better user experience into our HMI and **focus on our customers’ needs** with a familiar and trusted brand.”

*BW Packaging*



## Design options

FactoryTalk® Optix Studio™ provides designers with unlimited flexibility to:

- **Design and test HMI projects** directly from a web browser via the cloud, or if you prefer, use desktop installable design software.
- **Build and modify** projects dynamically at runtime.
- **Modify applications** from anywhere, anytime, with an integrated cloud-based code repository and version management to track changes and know who did what and when.
- **Use wizard-based workflows** for managing users and groups, communications drivers, data logging, and recipes.
- **Easily start** projects with modern templates for navigation, login, alarms, and notifications.
- **Build projects** faster with pre-built libraries and a comprehensive set of graphical objects, including industry standard objects and Rockwell Automation standard libraries, organized with logical library folders. Quickly find and filter objects with library search tools.
- **Create, save and reuse** single objects or complete projects in user-defined libraries, with the flexibility to store your libraries locally or in a cloud-based repository. Multi-user collaboration enables library management standards among plant engineering, OEMs, and integrators.



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# Deployment options

Create your application once and deploy to any device.

- **Choose the platform** that works for your application with modular object-oriented and cross-platform architecture for ARM/x86 systems, Windows or Linux operating systems, and HTML5 browser support.
- **Design with flexibility** in mind and no tie to a specific display device. Deploy applications to an edge or standard industrial PC, OptixPanel™ closed terminal, or web client—or for smaller, data-centric applications, choose no display at all.
- **Design displays for all users.** The user interface in an application includes the same graphics and functionality for both local users on an OptixPanel or industrial PC and remote users using a web browser. Both users access the application independently of each other in a separate session.
- **Modular deployment** lets you size the platform for the application—choose a runtime device that aligns with the level of complexity you need. FactoryTalk Optix can run on an edge compute device for a small application collecting data, or for more feature-intense applications, scale up to a powerful industrial PC.
- **Deploy, troubleshoot, and maintain** applications from anywhere, anytime. Deploy locally with FactoryTalk Optix Studio; add FactoryTalk Remote Access to deploy and maintain applications from a remote location. With FactoryTalk Remote Access, applications can be deployed from an installed FactoryTalk Optix Studio or web browser interface.

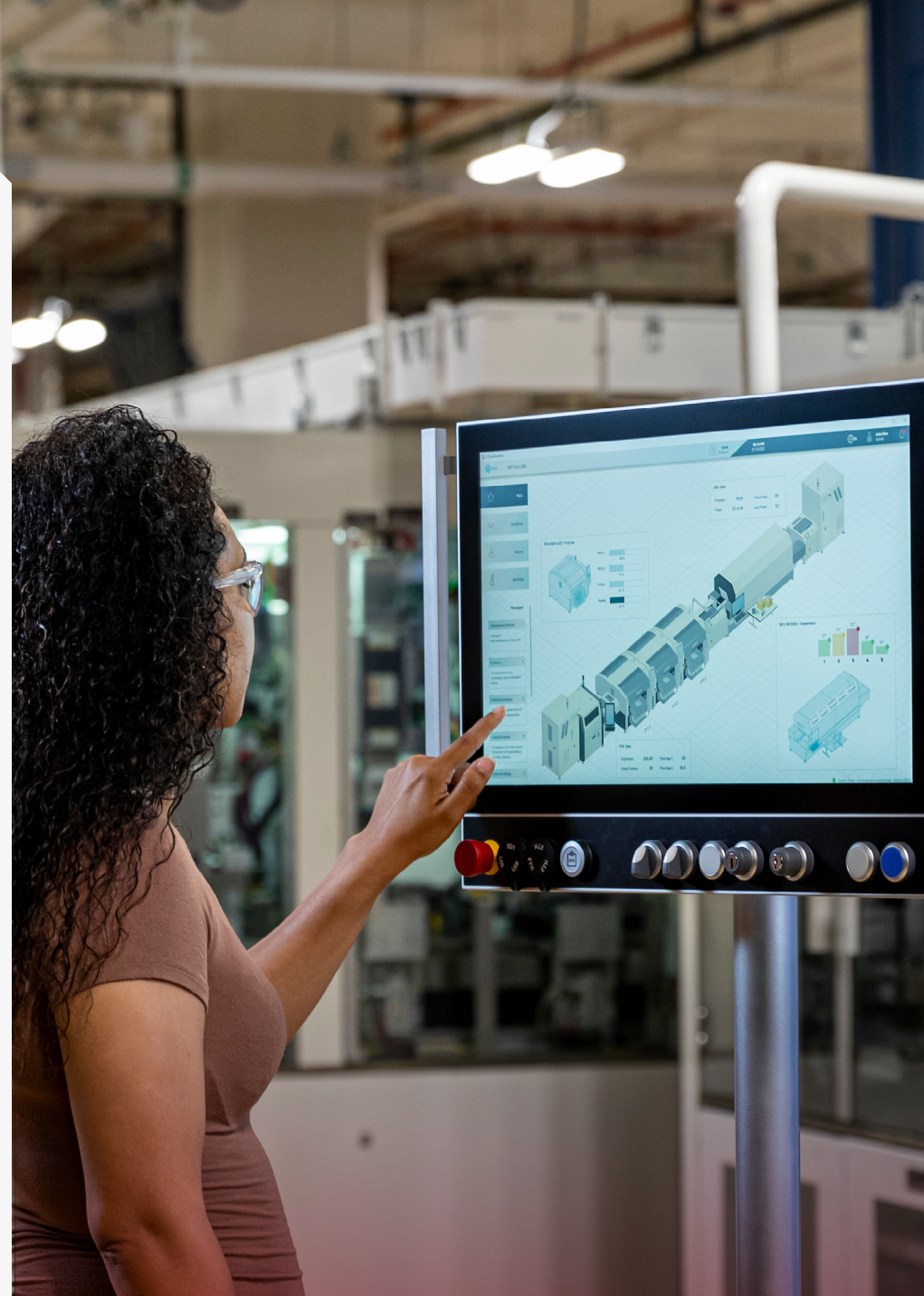




## Graphic options

Style your HMI graphics for a global audience, with responsive HMI interfaces compatible with every device. With FactoryTalk Optix you can create a customized, modern user experience.

- **All graphics are responsive** Scalable Vector Graphics (SVG) that can be set to scale—get smaller or larger with screen size—or retain their size no matter the display size. All object-oriented graphical design means all graphic objects are in containers with a defined relative position to the edges, ensuring automatic object repositioning upon screen size and ratio changes.
- **Style sheets let you specify properties** for all graphic objects in a project. Use style sheets to change the visual display at runtime, for example to allow the user to switch from light mode to dark mode with the touch of a button.
- **True multi-language support** not only changes the language on the displays, but also the units, international settings, and date and time format. Unit values are automatically converted, such as from inches to millimeters.
- **Provide a personalized user experience** and make certain screens accessible only for particular user groups with user-specific interfaces.
- **Include lightweight reporting and dashboarding** on displays with historical or real-time data. Customize report layouts with text, tables, and static graphics. Include live dashboards and automatically generate PDF reports.
- **Create a simple database** interface for all components of the project—alarm history, trending, recipes, data grid, text box—to display historical or real-time data.





## Extensibility options

FactoryTalk Optix is a platform built from the ground up with incredible extensibility.

- **Built-in, reliable connectivity** from the controller to the cloud. Connect to any device with preferred Rockwell Automation connectivity, IIoT connectivity (MQTT), Secure HTTPS protocols, OPC UA protocols, and included third-party drivers.
- **With OPC UA in its DNA, FactoryTalk Optix** provides true object-oriented design, machine-to-machine communications, and full support of the OPC UA companion specifications. Utilize OPC UA standards for field data acquisition and interfacing to MES, ERP systems and Cloud infrastructures. With FactoryTalk Optix all project resources, including data structures, graphics, users, recipes, dataloggers, and more are structured in OPC UA objects with properties, methods, and events. This enables automatic interfacing with systems or solutions that support the OPC UA standard.
- **Open interfaces with scripting capabilities** enable unlimited customization and automatic generation. The FactoryTalk Optix open API is available for all aspects of a project. With this open API and C# scripting, you can create application logic for customized functionality, automatically generate parts of a project at design time and runtime, or customize the visual style of graphics instantly.
- **Use local or remote ODBC (Open Database Connectivity)** databases for all types of data in a project. Log and store historical data, recipe values, and event and alarm history in an embedded SQL database or to a centralized SQL database through an ODBC connection. Use ODBC to query or populate a database maintained with other systems that contains data for the project.



# Choose the right design environment for you

## Design time

Develop applications for free with a local install of FactoryTalk Optix Studio Standard, or add remote repository and version management, centralized libraries, multi-user collaboration, and remote deployment, plus the option to design via web browser, with FactoryTalk Studio Pro. Remote application deployment requires FactoryTalk Remote Access.

	FactoryTalk Studio Standard	FactoryTalk Studio Pro
<b>Install</b> FactoryTalk Optix Studio on your laptop or PC	x	x
<b>Build</b> FactoryTalk Optix applications locally on your laptop or PC	x	x
<b>Save</b> FactoryTalk Optix applications locally on your laptop, PC, or local drive	x	x
<b>Deploy</b> FactoryTalk Optix applications from your laptop or PC	x	x
<b>Build</b> FactoryTalk Optix applications using the web-based FactoryTalk Optix Studio environment		x
<b>Save</b> FactoryTalk Optix applications to a remote repository and track changes with version control		x
<b>Save</b> FactoryTalk Optix libraries to a remote repository and track changes with version control		x
<b>Multiple people</b> can work on the same FactoryTalk Optix application simultaneously		x
<b>Deploy</b> FactoryTalk Optix applications to runtime target devices from the cloud*		x
<b>Connect</b> to and monitor runtime target devices from the cloud*		x

\*Requires FactoryTalk® Remote Access™



# Only pay for what you need

## Runtime

FactoryTalk Optix provides scalable licensing for scalable applications, where runtime licensing is based on the capabilities used in an application. Every package gives you the flexibility to use a number of features of your choosing, so you only pay for the features used. You no longer have to count the number of tags, screen, or alarms.

### Capabilities affecting FactoryTalk Optix Runtime sizing:

- Controller connections
- Multiple web clients
- Alarming
- Recipes
- PDF reports
- Data logging
- Database connectivity
- OPC UA connectivity
- MQTT connectivity

To size your runtime application, use FactoryTalk Optix Studio or access FactoryTalk Optix Runtime Sizing tools on **FactoryTalk Hub**.

### Runtime Purchasing Options

FactoryTalk Optix Runtime licenses are available in a bundled package of perpetual software license with first year maintenance benefits, allowing you to confidently run FactoryTalk Optix applications with access to support and software version updates for a full year. Perpetual licenses never expire.

### Design Purchasing Options

FactoryTalk Optix Studio Pro is offered by subscription for more flexibility. Licensed by user, you can add or remove licenses to scale usage up or down and help prevent overpaying for unused licenses. Access to support and upgrades are automatically included with subscriptions. Find the right fit with various term options, from 1-year to 5-year subscription plans.



## Try FactoryTalk Optix—for no cost.

Visualization solutions as simple or complex as you need. Modular, right-sized applications mean **you pay only for what you need**. Start accelerating value delivery with modern technologies, right now, with FactoryTalk Optix.

Try It Now

Connect with us.    

[rockwellautomation.com](https://www.rockwellautomation.com)

expanding **human possibility**<sup>®</sup>

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