RSView32 — A Technology Leader

RSView32™ is an integrated, component-based HMI software product for monitoring and controlling automation machines and processes. RSView32 is designed to run on any of the familiar, popular Microsoft operating systems: Microsoft® Windows® 2000 (requires RSView32 6.3), Windows NT® and Windows 95/98. Easily change your Windows operating system platform without affecting your RSView32 projects.

RSView32 expands your view by leading the way with open technologies that provide unprecedented connectivity to other Rockwell Software products, Microsoft products, and third-party applications. For example, RSView32 was the first HMI software to:

- Extend your RSView32 projects with reusable, customizable ActiveX® controls that embed directly into your graphic displays
- Develop an object model to expose portions of its functionality that users and other software products can access
- Integrate Microsoft’s Visual Basic® for Applications (VBA) as a built-in programming language allowing almost unlimited ways to customize and extend your RSView32 projects
- Support OPC standards as both a server and a client for fast, reliable communications with a wide variety of hardware devices
- Implement Add-On Architecture (AOA) technology to expand RSView32’s functionality and integrate new features directly into RSView32’s core

What Can Technology Do for You?

Being first with technology is only as important as the benefits that it brings and the solutions that it offers. The value of technology is in solving real-world applications with software solutions that are easy to design, deploy, support, and reuse.

Interact with other Rockwell Software products

Take advantage of built-in interoperability when using your Rockwell Software programming, communications, and ActiveX control products. Rockwell Software products are designed to work together, so you can build your own customized suite, choosing only those products that best serve the needs of your unique applications.

For example, select RSLogix™ ladder tags right from within RSView32. Using the same RSLinx™
communication driver, directly link both ladder logic and RSView32 software to a processor. RSTools™ integrate directly into the ActiveX toolbar. With RSWire™ Docx™, view RSWire™ DWG files and other support documentation right from RSView32 graphics. When working in RSSql™, go online with an RSView32 project and select just the tags you need.

Or write your own ActiveX controls, using Visual Basic or Visual C++® and embed them in RSView32 graphic displays. Link ActiveX control properties to RSView32 tags, and use ActiveX control events to trigger RSView32 commands or macros.

**Share data with Microsoft products**

RSView32 uses an open design that makes it easy to share information with Microsoft products.

RSView32 tag configuration, alarm configuration, and logged data are all ODBC compliant. Manage and report on complex tag databases using common database tools such as Microsoft Access. Log data directly to an ODBC data source such as Microsoft SQL Server™, Oracle®, or SyBase®, and graphically view the data in a trend.

**Extend and customize RSView32 with VBA**

RSView32 includes Microsoft Visual Basic for Applications, a built-in programming language, which allows almost unlimited flexibility for extending and customizing RSView32.

With the VBA integrated development environment, create, test, and debug VBA subroutines, and then run the subroutines from within RSView32.

By writing VBA code that interacts with RSView32 features represented as exposed objects, you can manipulate RSView32 programmatically, extend its functionality, and automate processes.

Because RSView32 incorporates the same VBA programming language as Microsoft Office and some other software products, it shares inherent interoperability at the object level—which provides the foundation for crafting a true system solution. You can work easily with other VBA partner products such as Microsoft Excel, AutoCAD, Visio, or any other software product that shares the same object-oriented standards.

**Enjoy preferred compatibility with Rockwell Automation products**

RSView32 and RSLinx offer the most powerful combination to capture, control, and convey plant floor data. This preferred combination provides unmatched performance with the new Allen-Bradley ControlLogix PLC family of products.

**Maximize your hardware investments with OPC**

RSView32 supports the 1.0a specification for OLE for Process Control (OPC). OPC is a robust communications protocol designed especially for industrial automation applications. Using OPC, you can connect RSView32 to any communication device for which an OPC 1.0a-compliant server or driver is available.

Like DDE, OPC allows RSView32 to communicate with a variety of devices and networks. Unlike DDE, OPC is specifically designed for process control, eliminating many of the limitations inherent with DDE. RSView32 can function as both a native OPC client and OPC server, and RSView32 supports browsing for OPC server addresses. As an OPC server, RSView32 can serve data up to other applications.

With OPC, you can create an HMI application that covers all of your equipment, not just the Allen-Bradley devices. The list of devices and networks that are supported by OPC drivers is long and growing. Refer to the OPC Foundation web site for the latest information: www.opcfoundation.org.

**Customize RSView32 Core Features with Add-on Architecture**

Still leading the way with technology innovations, RSView32 redefined the meaning of “HMI core features” with its add-on architecture (AOA). AOA technology expands RSView32’s functionality by integrating new software components directly into RSView32’s core. Customize RSView32’s feature set by installing only those components you need.
At no additional charge, RSView32 Special Edition includes the following software components that you can install separately:

- **RSView32 Messenger™**. Provides powerful alarm annunciation, paging, and messaging tools. Messenger announces alarms and simple reports through pagers, faxes, e-mail, telephones, cell phones, or even locally on your computer using a sound card. With its scheduling capabilities, you can accommodate holidays, weekends, and business trips.

- **RSView32 SPC™**. Offers an integrated Statistical Process Control solution that provides real-time SPC analysis. SPC provides statistical methods for analyzing and controlling the variation of a process. Controlling a process is essential for producing quality products.

- **RSView32 TrendX™**. Monitors real-time and historical process data and provides a strip chart recorder display as it collects data. TrendX offers extensive, flexible runtime control. Add up to 100 pens on the fly, toggle between isolated and overlapping trend lines, specify unique pen configurations, and plot one variable against another. Compare data by overlaying multiple trend snapshots, click and drag to reposition overlays, and click and drag to zoom in and pan through trend data.

- **RSView32 RecipePro™**. Enhances RSView32 recipe management and control. Configure multiple recipe projects and easily transfer process data recipes to and from your automation equipment.

**RSView32 Offers the HMI Features You Expect — and Then Some**

Get started quickly with RSView32’s point-and-click access to its editors and many of its functions. An intuitive folder system makes it easy to organize project files. To switch between the development and runtime systems, simply click the tabs in the convenient Project Manager. It’s quick and easy to change your project on the fly during runtime.

**Update projects online**

RSView32 saves you time with online changes that don’t require you to shut down your process. Edit graphic displays online; the changes take effect the next time you open the display. When you add or edit tags online, the changes take effect immediately.

**Organize tags in folders**

RSView32 uses a convenient, intuitive folder structure to organize tags. For example, you might group all tags for Tank1 in one folder and tags for Tank2 in another folder. Browse for tags anywhere within RSView32 or from within VBA.

**Reuse tag databases**

RSView32 can reuse the same tags created in a PLC® ladder logic application. Simply open the tag browser and point and click to select the tags — without importing the entire database. Import an individual tag or groups of tags from an Allen-Bradley PLC, SLC™, or SoftLogix 5™ “Soft PLC” database. RSView32 also supports RSLogix Frameworks™ databases.

**Powerful Graphics Editor**

Design high-level graphics for even the most complex application using the RSView32 drawing environment. You can also use graphic files from other drawing software, such as AutoCAD®, CorelDRAW, and Photoshop®. And you can add animations to vector-based graphic objects.

**Reuse objects from graphic libraries**

RSView32 comes with hundreds of graphic objects that you can drag and drop into your displays. Many of the objects are already configured with animations. Create your own libraries with the graphic objects that you use most. The RSView Online Forum offers many graphic objects freely available for downloading (www.rsviewforum.com).

**Copy and paste animations**

After attaching animation to an object, copy the animation and paste it onto another object. If the object has more than one type of animation, all animation is copied and pasted with a single click.

**Edit objects and properties as a group**

To edit a common property of several objects (for example,
their color, size, or orientation), group the objects together and then change all of them with just one click.

**Animate motion by clicking and dragging**

With Object Smart Path™, animate an object's range of motion by simply dragging the object from its starting point to its final position. RSView32 automatically calculates the pixel offset and moves the object through the range at runtime, eliminating counting pixels, taking measurements, and trial and error.

**Simulate runtime with the click of a button**

During development, quickly test the animations in a graphic display by clicking a button on the toolbar. RSView32 immediately simulates run mode from within the graphics editor without starting the runtime software. To continue editing, simply click another toolbar button.

**Represent multiple machines with a single graphic display**

When you create the graphic objects in a display, assign tag placeholders to the objects instead of tag names, and assign a parameter file to the graphic display. A parameter file defines the tags that the graphic display uses at runtime. To change the tags associated with all of the objects on a graphic display at runtime, simply change the parameter file. A single graphic display can handle information for many similar sources—so you have fewer graphic displays to create, edit, save, and update.

**Quickly replace tag names and character strings**

Use tag substitution to quickly replace the tag names or placeholders, commands, macros, file names, or command parameters associated with all currently selected graphic objects. This timesaving feature allows you to quickly change a large number of tag names or other character strings associated with multiple objects without editing each object individually.

**Build commands by pointing and clicking**

You don't have to remember complicated command names and syntax; RSView32's command wizard steps you through the process with lists, prompts, and check boxes.

To quickly run commands during either development or runtime, use the built-in command line.

**Enter input with an on-screen keyboard**

The on-screen keyboard allows operators of touch-screen terminals to enter input without a keyboard attached to the terminal. When the on-screen keyboard is enabled for a graphic display, a keypad opens when the operator selects an input field. If the operator selects a text input field, a full QWERTY keypad opens. If the operator selects a numeric input field, a numeric keypad opens.

**Continuously update hidden graphics**

Displays can remain active running or collecting data at the configured scan rate while hidden from view. For example, use this feature to keep an ActiveX control running continuously, or to update real-time trend data, even if the graphic display is closed.

**Continuously update input fields**

To help an operator track a tag's value, configure an input field to continuously update with its current value, while pausing when the operator enters values manually.

**Resize objects and graphic displays**

RSView32 automatically scales objects on a graphic display to fit the runtime screen resolution. This eliminates the need for configuring separate graphic displays for different display resolutions.

**Customize the look of graphic displays**

RSView32 offers a full set of display setup features, including background color, highlight color, input field text and fill colors, scaling, window size and position, security code, and startup and shutdown commands. You can also set default values, so that all graphic displays in a project share similar characteristics.

**Document objects with pop-up tooltips**

Assist runtime operators by adding pop-up tool tips to buttons and other touch-control objects.

**Animate objects with changing colors**

Use any of the standard Windows colors for objects in graphic displays, or create your own custom colors. To draw an operator's attention to an object at runtime, animate the object to change color as its value changes, using up to 16 different color options.
Schedule printing of graphic displays

Use a simple command to print any graphic display in the project at any time. You might want to schedule screen prints for auditing purposes, or automatically print a graphic display when a particular event (such as a high-priority alarm) occurs. You can print a graphic display even if it is not running.

Manage screen real estate with display types

Three display types help manage graphic displays at runtime. The Replace display type opens a new display and automatically closes open displays using a single Display command. The On Top display type keeps a graphic display, such as a pop-up display, on top of other displays already open on the screen. The Overlay display type allows multiple displays to run simultaneously, even if they overlap each other.

Display data values in trends

Drop the ActiveX control, RSView32 TrendX, into a graphic display to provide operators with a way to track plant activity as it happens. TrendX provides real-time and historical trending for up to 100 tags on a single trend with extensive, flexible runtime capabilities. RSView32 also offers native trending with preconfigured objects available in the graphics library.

Comprehensive Alarms Editor

RSView32 offers a complete, flexible alarm system. Display alarm messages on the screen, in an alarm log viewer, or export the .DBF alarm log data to any ODBC-compliant database program.

RSView32 alarm monitoring allows you to:

- Monitor up to 10,000 tags for alarms.
- Define up to eight severity levels to distinguish alarms visually and audibly.
- Define up to eight alarm thresholds with different levels of alarm severity to indicate an alarm's importance. Attract attention to high-priority alarms with blinking colors in the alarm summary.
- Add user-defined remarks to the alarm log description field.
- Tie alarm thresholds to tags to provide dynamic threshold values that change with a process.
- Filter alarm summaries to display only those alarms you need to monitor.

- Associate a macro with an alarm to provide custom handling. For example, open a display that contains instructions on how to correct the alarm condition.
- Set up global alarm monitoring. Operators can acknowledge an alarm at one station and have it recognized at all stations.
- Notify a programmable controller that RSView32 has recorded an alarm.

Use RSView32 Messenger, an optional software extension, to announce alarms through pagers, faxes, e-mail, telephones, cell phones, or even locally on your computer using a sound card.

Full-featured Data Log Editor

Data logging records specific tag values under conditions defined by up to 20 different log models. Data is stored in .DBF format and can be displayed in trends, archived for future processing or analysis, and displayed or analyzed using third-party software, such as Microsoft Excel, Crystal Reports™, FoxPro®, and RSTrend™.

ODBC database support lets you log RSView32 tag data to an ODBC-compliant database, such as Microsoft SQL Server, Oracle or SyBase. You can still view the data graphically in a trend.

You can specify a secondary path for all logged data. If the primary path becomes full or unavailable, RSView32 can automatically switch to the secondary path without losing any data. RSView32 automatically detects when the primary path is restored and merges the data from the secondary path back to the primary path, so that you retain all of your data in one location.
Sophisticated Logic and Control Editor

RSView32 offers derived tags, event control, expressions, macros, and embedded Visual Basic for Applications. Use these powerful options to customize and automate your RSView32 projects.

Continuously calculate values with derived tags

A derived tag’s value is the result of an expression. The expression can include mathematical operations, tag values from the RSView32 internal value table, if-then-else logic, and other functions. Use derived tags to perform continuous evaluations on a tag or for any loop processing.

Trigger actions with event expressions

An event is an expression that triggers actions. You might use event detection to respond automatically to an alarm. Or as a tank approaches a specified fill level, warn the operator by opening a web browser and displaying instructions from your company’s intranet site.

Run sequential commands from a macro file

A macro is a series of commands stored in a file. Use the macro file name like a command and enter it anywhere you can use an RSView32 command. Entering a macro file name runs the macro and sequentially executes all the commands in the file.

Security Features

Secure RSView32 at the project level

RSView32 provides 16 levels of security to safeguard your system at the project level. Assign levels of security to commands, macros, database tags, graphic displays, and OLE verb control. Assigning combinations of security levels to individuals or to groups of users allows different users access to different sets of features.

Secure RSView32 at the system level

At the system level, lock users into your RSView32 application so they cannot exit to the Windows operating system during runtime.

More RSView32 Features

Record project activity in database logs

Activity logging tracks information about the following types of system activity in .DBF format: command and macro usage, operator comments, system messages and errors, communication network errors, and read and write activity from tags. View activity logs from within RSView32, archive the logs for future processing or analysis, and display or analyze the logs using third-party software such as Microsoft Excel, Crystal Reports, or FoxPro.

Enabling Windows NT security synchronizes the user account list to the user list of one domain controller, providing a means for centralizing security management and allowing users a single logon. Launching RSView32 automatically logs an NT user into RSView32. Changing the RSView32 password also changes the NT user password.

In Windows NT, the NT 4.0 Desktop Lock feature disables CTRL-ALT-DEL. The NT 4.0 Desktop Lock also gives you the ability to start Windows NT 4.0 without a logon dialog and to replace the Windows Desktop with a password-secured desktop.

In Windows 95/98, you can disable runtime access to other Windows programs and the CTRL-ALT-DEL key combination.
Customize projects with startup preferences

Use startup preferences to customize how a project looks and operates at runtime. Specify which graphic to display first, which window elements to display, and whether to disable or enable certain accelerator key sequences. You can also specify which subsystems to start automatically, including alarms, data logging, derived tags, and event detector.

Find the answers you need

Your RSView32 software package includes comprehensive user’s guides, detailed online help files, and sample projects. You’ll also find useful software tools and utilities, such as a project transport wizard, a color palette customization utility, and a tag checker tool to verify communications between RSView32 and PLCs. In addition, RSView32 ships with an interactive, multimedia tutorial to help you get started.

Connect with other RSView users

The RSView online discussion forum provides a place to ask other users “how do I…?” The RSView Online Forum features technical and commercial news; an open discussion forum; free design tools including VBA code snippets, ActiveX controls, and graphics; version and patch information; and much more. To stay up-to-date with what’s new with RSView, visit www.rsviewforum.com.

Customize and Extend RSView32 with Add-On Products

You can further customize and extend RSView32 by purchasing additional add-on products. For more information about any of these products, refer to its technical data sheet, available from the Rockwell Software website.

- **RSView32 WebServer™**, available Spring 2000, provides a quick, static look into graphic displays, tags, and alarms through any standard Internet browser. This low-cost, web-based solution requires no installation or administration on clients.

- **RSView32 GEMTool™** provides RSView32 with the ability to handle all SECS-II messages required by the Generic Equipment Model (GEM) standard.

- **RSView32 SECSHost™** allows RSView32 projects to communicate with semiconductor manufacturing equipment using the SECS communications standards.

- **RSView32 DataLyzor™**, available Summer 2000, displays slices of data from alarm logs and data logs in a variety of graphical patterns, providing visual cues to exceptions.

Award-Winning Technical Support

When you purchase RSView32, you receive not only industry-leading software, but also award-winning worldwide support. The free MySupport service allows you to personalize the Rockwell Software Support Services website for your product interests. MySupport can send you regular e-mail messages with links to the latest technical notes and software updates for RSView32 and other products that are of interest to you. With MySupport, the information that you want is delivered directly to you so that you can stay on top of the latest releases without stopping your regular workflow. To register, visit http://support.software.rockwell.com/
System Requirements

Personal computer with 200 MHz Intel® Pentium® processor and 64 MB of RAM. Individual applications may require a faster processor or more RAM.

For detailed recommendations check the Rockwell Software Support Library, go to http://support.software.rockwell.com/supportlibrary/; and search for tech note A1191.

RSView32 bundles and tag limits

Because every customer has different requirements, and because one size doesn’t fit everyone, Rockwell Software offers a variety of choices for purchasing RSView32. Whether you run RSView32 on Windows 2000, Windows NT, or Windows 95/98, you receive the same development and runtime software. You can easily change your operating system platform without affecting your RSView32 projects.

When you purchase RSView32, you can choose:

• RSView32 software. Choose RSView32 Works, which includes development and runtime software, or RSView32 Runtime, which includes only the runtime software.

• Tag limits. Choose the I/O tag level that best suits your needs: 70,000 tags (becomes 100,000 in RSView32 6.3), 32,000 tags, 5,000 tags (available in version 6.3), 1,500 tags, 300 tags, or 150 tags. Upgrade the tag limit at any time without reconfiguring your projects.

• Communications drivers. Use RSLinx Professional to communicate with Allen-Bradley devices or with any software that is OPC compliant, or choose RSView32 without communications drivers if you are using RSServer™ or other third-party drivers.

Related Documents

RSView32 literature is available through The Automation Bookstore at:
www.theautomationbookstore.com

• RSView32 Product Focus brochure 9398-VIEW32PF
• RSView32 Sampler & Tutorial CD-ROM 9398-VW32SCD
• RSView32 Active Display Technical Data sheet 9398-VW32ADTD
• RSView32 Messenger Technical Data sheet 9398-VW32MSGXTD
• RSView32 SPC Technical Data sheet 9398-VW32SPCTD
• RSView32 TrendX Technical Data sheet 9398-VW32TNDXTD
• RSView32 RecipePro Technical Data sheet 9398-VW32RCPTD
• RSView32 WebServer Technical Data sheet 9398-WEBSRVTD
• RSView32 GEMTool Technical Data sheet 9398-GEMTD
• RSView32 SECSHost Technical Data sheet 9398-VW32SHTD
• RSView32 DataLyzor Technical Data sheet (available Summer 2000)

For More Information

For more information on the latest pricing or a demonstration of any Rockwell Software product, please contact your local Rockwell Automation product office or authorized Allen-Bradley distributor. For the very latest on Rockwell Software products, visit our website:
www.software.rockwell.com

To order RSView32 from our online store, visit
www.rockwellautomation.com/rsstore

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