

TalentView



Software technology SCADA / HMI / MES

Intelligent, Powerful, Scalable and easy
to use, for Every Automation Need

TalentView is the new industrial automation platform that offers innovative and flexible software technology for Windows **HMI** projects, **SCADA** supervisory systems, **MES** and efficiency analysis solutions essential to **Industry 4.0**.





Innovation for any SCADA / MES / HMI supervisory project

TalentView, the state-of-the-art technology for Smart Factories and the best software solution for every company automation need.

TalentView represents family of the Modern SCADA Systems which supports the technology of Fully Integrated Standalone Modules, All modules are hot-pluggable where any module can be installed, updated, removed separately without affecting the operation of the system operation, and all modules work together seamlessly and can be used to create any kind of industrial automation solution, including SCADA visualization, historian and remote mobile monitoring and beyond, To enable users adding features such as trends, tables, mobile access, SMS notifications for alarms, transaction management, sophisticated logic systems, enterprise administration, and much more.

TalentView is robust and reliable solution in a multi modular software packages that scales from a stand-alone HMI system to a distributed solution.

TalentView suitable for plant process, batch and discrete applications with the real time data that provides a complete industrial automation solution.

TalentView provides easy and user visual ability of objects animation and configuration without writing any code based on the technology of Graphical Object Orientation (GOO) which will give designer about 60% reduction in engineering effort and time to create applications due to ease of use.





The universal software solution: from SCADA/MES projects to small HMI

Scalability

TalentView has been designed to guarantee maximum scalability, allowing users to operate in modular platform, flexible and easy to use development environments for modular solutions. The scalable architecture can be used to design any project, from small HMIs to Control Rooms, allowing a remarkable save in costs and time with the added benefit of unlimited deployment possibilities.

Standard

TalentView is a complete software technology based on openness and reliability industry standards. The XML technologies provide the most effective and advanced graphics standard. The Historian technology is based on Ms SQL Server and Azure, seamlessly supporting any other Relational DB. The project files are based on the XML standard. The communication layer provides a vast number of native communication drivers.

Connectivity

The TalentView platform is based on the innovative Data Server information model, to ensure maximum native connectivity to any device or application module based on this technology. It also provides unmatched features for security and performance.

Data Analysis

TalentView allows historical recording of all data managed by the Server, using local or cloud databases in the most transparent, open and independent way. In addition, specifically designed extension modules can be used to manage Plant Intelligence to improve productivity or energy efficiency.

Security

TalentView guarantees the highest possible level of security. In addition to a powerful Users and Passwords management, the solution ensures integration with the security models offered by the desired provider.

Engineering

TalentView provides an innovative and enjoyable development environment with a rich set of intuitive features. Projects can be created in much less time than before by using wizards, templates, symbol libraries and toolboxes based on XML.



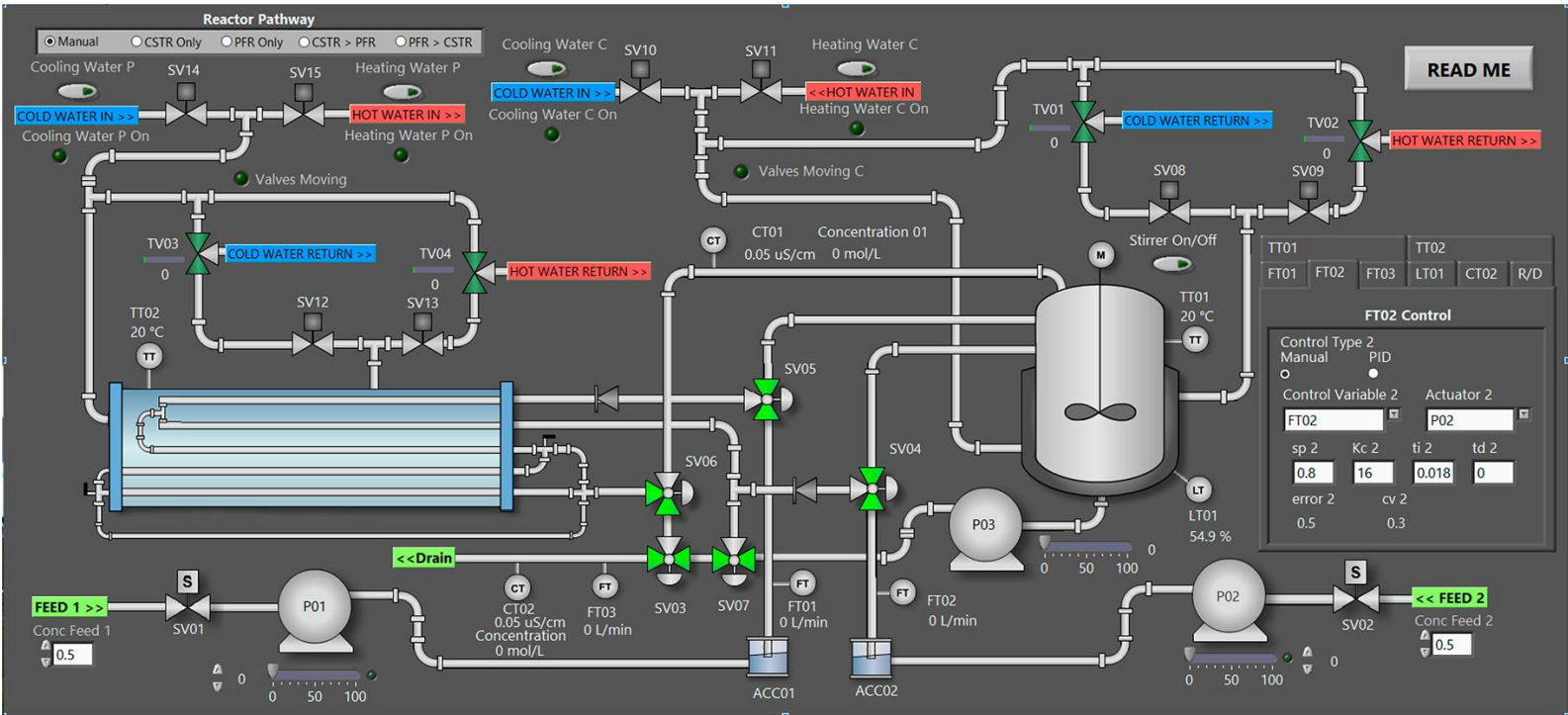
A blue-tinted image of an industrial robot arm in the foreground, with a blurred background of a factory. Overlaid on the image are various data visualization elements: a circular gauge showing '24', a bar chart, a digital clock showing '09:21', and a large '85%' figure. The text 'Security' is visible at the top center.

Software technology for every I4.0 automation solution

What makes the TalentView software technology revolutionary?

TalentView uses the best innovative technologies, meeting the essential market demands for communication and interoperability across the IoT and Industry 4.0 domains.

- **Plug-In Framework**
The new TalentView technology is based on the JAVA technology that leverages the potential with a 32/64-bit systems, with a Framework specifically designed to guarantee reliability, openness and performance. The platform uses the “plug-in” model to offer possibilities of complete modular system customization and the integration of new custom modules.
- **Android Mobile APPs**
The TalentView Web Server module offers new generation Android Client solutions, using Java technology to allow remote access to field applications, guaranteeing performance and access to cross-platform deployments. The Smartphone and tablet apps make web access easier from mobile devices.
- **Communication driver connectivity**
The Data Server module is based on a Server architecture which uses the information model defined by the IEC standard. The platform provides several integrated and native I/O communication drivers, capable of handling communication protocols for commonly used automation device (PLC, Networks, Field bus, instrumentation and others).
- **High performing Database and Cloud**
The Historian module users can feel free to connect to relational databases (such as SQL Server), use Cloud computing solutions (such as Azure), or use normal XML files on physical disk to log and archive process and project data.
- **Users and Memberships**
The security model is based on Membership authentication, guaranteeing maximum security and openness to the integration of authentication systems from different Providers

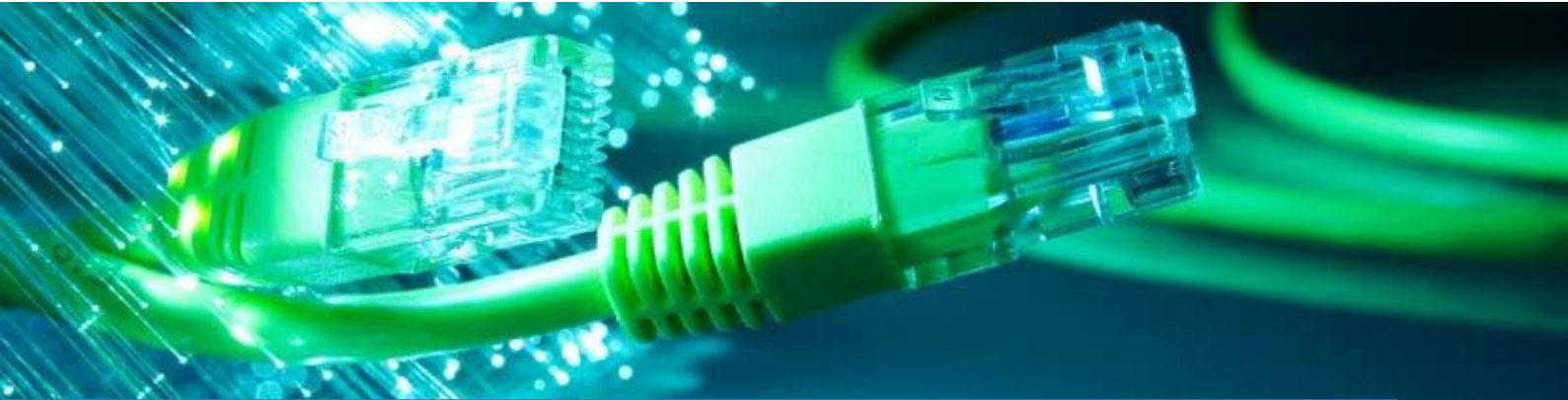


Graphics of the latest generation

Interaction between Man and Machine

By using TalentView you can create extremely powerful and versatile graphical interfaces. Animated screens are easy to create using symbols, objects, wizards, faceplates, power templates and native multi touch user interaction. The platform's graphics editor provides a library containing thousands of top quality XML symbols and a toolbox rich in graphical objects of the latest generation. You can also import your own drawings or use BMP, GIF, JPG, PNG or multimedia formats.

- Powerful integrated graphics Editor
- Rich library of preconfigured XML symbols and objects with top quality graphics
- Rich set of dynamic and animation functions
- Isometric Symbol Library
- Graphics Import from XML
- Support to all object-based touch manipulation functions
- Centralized Symbol Repository
- Symbol Power Templates
- Support to Styles and screen layouts



I/O Connectivity

Data Server

The TalentView Data Server structured on a robust and extremely reliable architecture. The server manages real-time communications by handling information in the platform's framework Address Space, the gathering point of all field device connected variable tags.

The TalentView Data Server is based on the data Information Model (IEC62541 Standard) and supports any Data Type definition, including those in the PLC IEC 61131 specifications. The Data Server technology is integrated and native, for both Client and Server, and supports the DA, A&E, HA specifications.

Integrated Protocol

Data Server offers several communication protocols (I/O Drivers) to import data and connect directly to the most commonly used automation devices, which include SE, Siemens, Rockwell, Omron, Emerson, Mitsubishi and others, or for networks such as Modbus RTU / TCP, Profibus, ProfiNet, BACNet, EtherCAT, GPRS, MQTT.

Data Gateway

All variables on the Server can be imported and exported and they support multiple connectivity to different devices. The Gateway feature between different protocols, field devices, networks and Cloud can be enabled for each variable tag.

Industrial IoT

The Server integrates specific protocols for IIoT allowing direct connectivity towards data collection and analysis systems in the Cloud. Protocols such as MQTT available to create IIoT data collection systems.

Security

The Data Server guarantees maximum data security and protection to allow communications based on fully configurable transports layers in the project, with the possibility to use secure HTTPS.

- Full integration of data in the Platform.
- Platform based on the Information Model
- Native and direct I/O Drivers included in system
- Simplified Connectivity
- Data Structures and Prototypes
- Direct Tag import from PLC applications.
- Full transport and security configurability (TCP, HTTPS)



Alarm Management

Alarm Server Manager

The Server's Alarm Management allows full custom configuration of project alarms and event messages, to achieve maximum granularity when managing events and providing accurate information to the operator. Alarms and Messages can be set to manage ON, OFF, ACK, RST and Archive events, according to the Data Server specifications. Alarm activation can be triggered with individual Tag bits, deviation values or elapsed time between data changes, allowing sophisticated alarm management with ease. Areas and Priorities management and configuration is available, with all related analysis, filtering and sorting functions (by time, area, priority, etc.), together with the possibility to combine dynamic help descriptions, operator comments and events.

Alarm History

The Alarm Manager also records and trace each individual alarm and message, as well as all system events, on database. In this way, the Alarm Manager can ensure that all events are recorded in the Historical Log archives, independently from the data format and archive location, whether local, remote or in the cloud.

Alarm and Historical Log Visualization

The Alarm Window and Historical Log Window are, respectively, the active and archived alarms visualization tools that can be inserted and configured in any screen, just like any other graphical object from the toolbox, allowing to build alarm display objects with symbols and templates that vary in style, and then add them to the Symbol Library.

Alarm Notification with Alarm Dispatcher

Control systems of unmanned plants, or those manned by a limited number of operators, must be able to immediately alert on-call duty staff with the information necessary to prevent prolonged production downtimes. This can be achieved by configuring the project's alarms to trigger immediate notifications. The Alarm Dispatcher feature allows event notifications via SMS, e-mail.

Downtime Analysis Statistics

TalentView provides an indispensable tool for Plant Production and Maintenance Managers, who are increasingly in need of solutions for statistical analysis of downtimes during production runs. The TalentView Downtime Analysis module is extremely easy to use

And allows quick identification and removal of critical and weak points in the production process, to improve and maximize the system's efficiency and productivity. Reports for total or partial downtimes, or the number of event occurrences in the plant, provide all aggregate and detailed information on each individually analyzed alarm and can be displayed or printed, based on command or event triggers, and even exported in various formats (such as Excel, PDF). The reports can be freely customized and adapted to the different project's needs, for example allowing to cross-reference downtime analysis data with production data. The Downtime Analysis module is also accessible via web.



Historian Module

Performance and Security guaranteed

The TalentView Data Recording Server uses innovative criteria for recording historical data, allowing plant data to be archived on data on DB, physical disk or in the Cloud, to ensure that performance and security are maintained, regardless of the data volume.

Data Historian Module

With the Historian model, the server module will record data ("Time Series" data type) typically on event, allowing your project to easily adapt to customer needs without spending time on building the model manually. the server module will record data, organizing them in DB table columns that are typically used for production traceability systems or report management. The designer can therefore freely configure projects with their choice of archiving database, using one or both methods depending on the desired analysis type and archive management system.

Support for SQL Server and any other DB

The configuration properties of each Historian prototype defined in the project can be set with a data from and recording trigger (change) and target archive.

Each single Tag defined in the Address Space can then be associated with a Historian model, to create your own simple and flexible archive configuration. The native and default data format is SQL Server, but you can opt to use other format as well. In addition, you can also customize the connection string to any DB such as Oracle or others, as well as the Cloud. Maximum project openness and independence is always guaranteed in respect to whatever archive format you choose to use.

Historical Data Visualization and Analysis

Several ready-to-use objects are available in the Toolbox to display and analyze data from the database archives as needed.



Data Analysis, Charts and Reports

Trends, Charts and Data Analysis

Sophisticated Trend objects are available to access and display curves relating to process data trends. Trends provide advanced functions to represent values graphically, with ample room to customize as needed.

Furthermore, Trend objects can represent data by specific time ranges or by other filter types. They also come with zoom, pen selection, logarithmic scales, fit-in-page, print features and much more.

The Data Analysis objects are great for performing thorough and sophisticated analysis exclusively on historical data, whose results can be represented in chart graphics. They also allow quick analysis on predefined time ranges using overlapping curve comparisons.

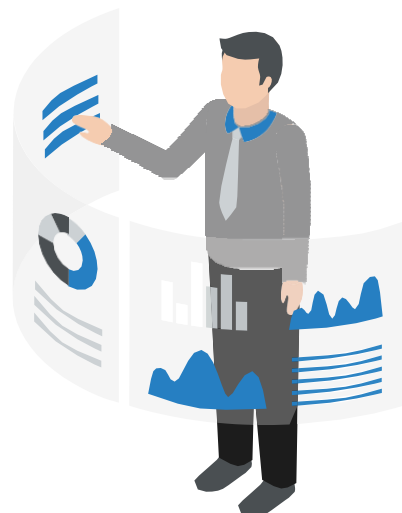
Integrated Report Manager

The Report Manager offers designers and users a powerful and flexible tool for generating, executing and distributing data reports and to successfully accomplish any type of analysis on collected information. The analysis is performed on data recorded by the platform, such as the archives managed by the Data Recording Server, using the Historian or Data Logger. As there are no limits to flexibility, analysis and reports can also be performed on any data source as well as by connecting existing relational DBs no matter what type. The Report Manager offers an object-oriented user interface where Reports can be created in a few simple steps by using

a wizard and templates. Once the data source has been selected, such as database tables for instance, it is very easy to build the report with data fields, tables, statistics and charts. All types of analysis tools are supported, including multilevel filters, sort by, group by, calculation functions or formulas, Master Report and Sub-Reports. The user can then view, print or export the reports in a number of different formats that include PDF or in the Excel XLSX formats.

Reports via Web Client

Reports can be published over the Web, using the Web Server Module that fully supports the Report Manager module's functions. When deploying projects over the web using the Web Server module.





Powerful Integrated Features

Geo SCADA

TalentView fully supports the integration of geographical maps and cartography systems for the geo localization of dynamic objects to view on maps. The Geo Scada feature allows you to define the geo graphical coordinates of specific screens or projects, dynamically displaying real-time information of any complexity on a map, with support to all commands that are usually available on normal screens. The Geo SCADA feature also supports advanced features such as: clustering (symbol's visualization complexity, based on zoom level), object interactivity, dynamic route and path tracking (tracking vehicle route with GPS), groupings and pop-up windows. TalentView simplifies the management of information distributed throughout territories using the navigation and zoom feature on map interfaces that can be integrated in normal SCADA supervisory projects.

Recipe Manager

TalentView offers a very advanced module to edit and execute Recipes, with configuration of asynchronous management of archives with respect to the Address Space. The configurator allows managing Recipes objects composed of a data layout, a freely configurable user interface and independent connectivity to devices. Specific download and upload functions have also been provided for transferring recipe data



Scripting and Logics

Project realization openness made possible with the integrated JAVA Script language TalentView integrates a powerful JAVA Script engine that can execute custom code and is totally compatible with the JAVA standard to offer a powerful wide-ranging set of APIs. Properties, events and methods can become then available not only for customizing any system functionality, but also to access your system's JAVA world. Scripts can be run normal routines or embedded in objects, such as graphic objects, alarm objects, templates, data loggers and others, and triggered by events.

Function Blocks / Ladder Diagram Editor TalentView integrate a graphical editor to design sequential logic using Function Blocks / Ladder, allowing you to create logics in our project without needing programming language know-how. The function block / Ladder library, which contains all the main logic functions, including PID control blocks, is expandable and customizable.



Remote Monitoring Technology

Access your plant over the Mobile using TalentView

The true concept of modern automation is the ability to access data of your automation system whenever and from wherever you happen to be. Users, Maintenance personnel, Production Managers and Managers at all levels need to have secure remote web access to manage, display and view production processes.

The TalentView excellent Mobile App performs these operations using Java, the most modern and innovative technology available in the web domain.

Remote Access

All TalentView project screens and features can be made available over TalentView app which are available soon for Android app stores. Users can access, log on, interact and perform all operations using the specific features available to the design engineer to allow remote control over the mobile, using the special security features provided. All system access and commands are traced

and recorded on the Server's Log. In addition, the user's authentication (Log on) is completely independent for each client station, so any user will be able to log on with different privileges (Multi-user). Purposely designed native tools, such as Dashboards, Grids, Data Analysis and Reports, allow direct access from the mobile to the project's historical logs on the server and to perform analysis.