The new software platform with ultimate technology
Progea presents Automation Platform.NExT™, the new era of industrial supervision

Automation Platform.NExT™ is a software architecture designed for building the foundations of modern automation software. It is an open and scalable platform, based on .NET using the latest software technologies and modular concepts with "plug in" technology. An industrial software architecture made more open and scalable with integrated functional modules is fully capable of managing all business enterprise needs in the most efficient and effective way possible. This modular and open platform will empower automation professionals as the perfect solution for Supervision, HMI, Control, Historian, MES, and Industrial Analysis.
New horizons in automation systems

Automation Platform.NExT™ is the best software solution for every company need. Enhance your enterprise wide process information flow with efficient management from sensors to business intelligence.

Technology evolution is essential in the competitive automation world. Technology evolution is not just a question of introducing new features or improvements here and there. It involves finding the courage to confront new challenges directly, rethinking approaches and brainstorming to find better ways to venture into explore new technology frontiers. This is the only way to make the imaginable a reality. Automation Platform.NExT™ is the new frontier of SCADA/HMI technology. We are not just dealing with an enhanced Movicon platform but a completely new platform designed on the technology of the future. This is the fruit of Progea’s 20 years of experience in the automation sector and a represents a new reference point for SCADA/HMI software.

The Automation Platform.NExT™ project has been engineered to override the restricted use of conventional SCADA/HMI technology by proposing next-generation native-based software solutions incorporating the most advanced technology. These solutions create solid foundations for longterm investments, without compromise, offering openness and integration never before imagined in the world of automation. The Platform has been designed to offer an all-rolled-into-one modular and flexible work environment for design engineering and distributing industrial software applications for managing field communication, data collection, HMI interface graphics and supervision, Historicals and analysis, performances and business productivity efficiency calculations, maintenance management, event notification management and much more.
Automation Platform.NExT™ is the software that integrates automation systems with the most innovative and modern technologies at all levels enterprise-wide

- **Scalability.** Automation Platform.NExT™ has been designed to guarantee maximum scalability and offers all-in-one development environment for modular solutions that are flexible and easy to integrate within the platform. The scalable Platform.NExT™ architecture is remarkably cost effective and time saving and offers unlimited possibilities for deployment.

- **Openness.** The Automation Platform.NExT™ technology is based on the ‘plug-in’ concept, allowing maximum interoperability with systems to integrate new functional models within the Progea framework for fully customizable .NET solutions. The graphics environment is based on WPF and supports powerful external tools such as Expression Blend for creating XAML graphics. The powerful and integrated VB.NET language standard guarantees all kinds of customization.

- **Security.** Automation Platform.NExT™ guarantees the maximum level of security. In addition to the user management other solutions are provided that embrace the any approach to using alternative security models offered by preferred providers.

- **Standards.** Automation Platform.NExT™ is completely based on market standards providing openness and reliability. The XAML and WPF technologies guarantee the most effective and modern graphics standards, and historical logging technologies based on MS SQL Server and Azure with transparent support to all other providing relational databases. The project files are XML standard based. The powerful language is VB.NET syntax standard based. Communication is OPC UA-based in addition to various integrated protocols.

- **Performances.** Automation Platform.NExT™ emphasizes performance management. Fast communications, real-time data management and graphics optimization that make full use of graphics accelerators and DirectX, guarantee maximum technology without sacrificing performances.

- **Connectivity** The Automation Platform.NExT™ Information Model is based on the innovative OPC UA technology. This guarantees maximum native connectivity to any device or application module based on this technology which offer unbeatable features for security and performance. The I/O Data Server module offers a significant number of native O/I drivers, integrated and free, that provide direct connectivity for devices with proprietary protocols such as Siemens S7, Rockwell, Modbus, Omron, and others. The platform’s Client/Server architecture has been explicitly designed to unite IT and decision-making levels with the automation level of all production companies.

- **Web-enabled.** Automation Platform.NExT™ is based on the system access via web for which it already is an unparalleled reference point. Web-enabled projects can be created with extreme ease and effectiveness exploiting the Silverlight technology to obtain solutions with maximum performance as well as graphics and HTML5 technology to guarantee maximum portability to diverse platforms and systems.

- **Engineering.** Automation Platform.NExT™ proposes an extremely innovative and particularly pleasurable work environment with a rich and intuitive set of features. The platform is completely based on the new technologies which can be used for quick and effective project realization that before. This can be easily done by using the various wizards and templates, symbol libraries and toolbox. All of which are unprecedented in terms of graphics quality and re-usability. The platform is based on the function modularity concepts that permit users to create and implement plug in function modules externally and integrate them in the platform.
Open architecture designed for the future

Automation Platform.NExT™ is the open and scalable solution

Progea software technology surpasses all automation design engineer’s expectations of today. Progea wanted to build a modular platform to ensure the type of scalability needed for modern day automation systems combined with the sort of openness essential for customizing software systems as required by customers operating in sectors, such as manufacturing, infrastructure, energy, food and beverage and pharmaceuticals. Automation Platform.NExT™ offers an intuitive configuration environment to facilitate the process of creating even the most complex projects that entail integrating system function models or those designed by third parties which are easy to integrate on platform. Configuration, communication, visualization, data logging, analysis, security, control, information distribution are provided at all company levels, local or geographically distributed. All are at easy reach in the one platform that offers the advantage of both total integration and plug-in modularity.
An innovative workspace, totally integrated work environment, a customizable Progea framework with plug-in technology, revolutionary graphics with enriched symbol libraries that contain smart graphics of every typology, an open communication model, independent persistent data architecture, web performance and cross-platform technology are all included. The vast and long experience combined with the capacity to be innovative has empowered Progea to be extremely ambitious in designing an exceptional project destined to be a role model for all future SCADA/HMI architectures.

Automation Platform.NExT™ is one of the most ambitious projects in the field of industrial software technology with the objective to offer the base-line for realizing any automation application. As a base-line it covers all the fundamental requirements such as data acquisition and I/O Server, historicals, visualization, analysis and reports, plant intelligence with MES solutions, control and monitoring with SoftPLC solutions, Alarm and Downtime management, Web-enabled visualization and control and other unlimited feature uses due to the modular architecture open to third party function model integration to enable collaborative engineering.
The technologies used in Automation Platform.NExT™ are the best and most innovative in existence designed to give SCADA/HMI system users a completely new experience and advantages never thought possible before.

- **Plug-in Framework**
  The new Platform.NExT™ technology is based on .NET code that uses the 64 bit system potentiality with a framework specifically designed to guarantee reliability, openness and performance. This platform uses the plug-in model to guarantee full customization of modular systems and integration of new customized modules. The Movicon.NExT™ framework offers a rich suite of functional modules capable of guaranteeing rich and complete supervision and user interface solutions with total openness and expandability.

- **New Generation WPF and XAML Graphics**
  Movicon.NExT™ offers a new user interface concept that uses the latest generation of DirectX graphics acceleration to fully exploit the exceptional quality of WPF/XAML vector graphics technology in 2D and 3D. A diverse selection of New Generation Object and Symbol libraries provides native support to the very latest multi-touch and Kinect user interface technologies with Windows™ 8 style and navigation.

- **WinRT app, Silverlight and HTML5**
  Platform.NExT™ offers new generation client solutions that include apps for WinRT and Windows phone, and integrates the new Web Client technology to allow access via the web to servers using the Microsoft Silverlight or HTML technologies, allowing users to choose which client technology best suits their kind of architecture.

- **OPC UA and I/O Driver Connectivity**
  Platform.NExT™ is based on a client/server architecture using the information model defined by the OPC UA standards that exploit the WCF technology in the communication infrastructures. There are also a large number of integrated and native I/O drivers available in this model capable of managing communication protocols of all the most widely used automation devices (PLC, Network, Fieldbus, tools, etc).

- **Performing Database and Cloud**
  Movicon.NExT™ uses the Virtual File System (VFS) to render applications independent from persistent data models. This enables the user to feel free to connect to relational databases (i.e. SQL Server), use cloud computing (i.e. Azure) or use normal XML files on disk for historically logging and archiving process or project data.

- **Users and Memberships**
  The Platform.NExT™ security model is based on user login authentication with Membership management to ensure maximum security and openness aimed toward integrating authentication systems from diverse providers.
Automation Platform.NExT™ has been designed on innovative criteria to drastically reduce development time that incur more than 80% of project engineering costs. Progea’s extensive research and development work combined with its vast experience in supervision software has enabled it to reach the highest level of quality and technology currently available in industrial automation software. Reducing development time is a major concern for most SCADA/HMI user companies. Platform.NExT™ is fully equipped with just the right tools to ensure that your work and time are safeguarded. The objective to provide a unique all-in-one platform has been realized with Platform.NExT™, where ideas and innovation merge to create solid foundations of technology.

As an all-in-one and therefore totally integrated platform, the use of plug-in technology also makes it modular and open to integrating plug in modules customized on the Progea Framework. This allows users to expand potentiality by customizing the system towards vertical solutions that go beyond the limited use of “closed” technology. The .NET technology enables users to expand further by using the fully integrated .NET assembly and user controls.
A new userfriendly work environment based on WPF

The Automation Platform.NExT™ workspace is the result of continued Progea technology evolution derived from research conducted in software ergonomics combined with the vast experience of a company that has always valued feedback and suggestions from thousands of design engineers all over the world.

The Platform.NExT™ configuration far exceeds any other product for simplicity of use and intuitiveness which has been made possible with its intelligent editors and auto-configuration tools, wizards, and tag importers. Platform. NExT™ is a pleasure to use for engineering automation projects with exceptional visual impact instantly that also ensures that your investments are safeguarded.

Ribbon Interface

Workspace: WPF vector Graphics Editor, Resource configurations and the platform’s function modules

Applicable graphical object styles and effects

Properties Window for simple and intuitive configuring of selected objects and resources for the various platform modules

Toolbox containing Preconfigured Objects, Analysis and User Controls

Symbol Graphics Library completely based on XAML (WPF/Silverlight)

Language Editor VB.Net integrated

Trace Explorer

Command Explorer

XML Explorer

Animation Explorer

Project Explorer for easy access to all modules existing in the platform
Movicon.NExT™ uses the WPF graphics engine and DirectX graphics accelerator together with the latest generation of symbol libraries to offer graphics with remarkable quality. Design has now become an essential component of a product’s success especially for software applications dedicated to user interface and supervision. Applications based on Graphics device interface (GDI) technology are still using solutions designed in the 90’s, incapable of natively exploiting all the wonderful features offered by the latest generation of modern hardware graphics. Conversely Movicon.NExT™ uses the new WPF technology, the graphics engine for tomorrow’s applications, designed to change the way of thinking about and representing Windows user interfaces and above all capable of exploiting modern hardware.

The Movicon.NExT™ uses XAML-based vector graphics that excel beyond restrictive use of conventional graphics. Supporting 2D and 3D graphics and equipped with revolutionary and dynamic functions, that out-do the limited use of current products, users can now express their creative side to the full. All the symbol libraries were created using the XAML techniques and offer a rich selection of quality objects and symbols to facilitate design engineering. Highimpact visual HMI interfaces can now be achieved in less time than ever before. There is no need to have XAML expertise when using Movicon.NExT™ because its openness enables users to now have the opportunity to create symbols and 2D and 3D designs externally and implement them within the platform by using the powerful features of the XAML graphics and the Movicon.NExT™ real-time engine.
Movicon.NExT™ offers support to dynamic 3D graphics visualizations with XAML technology. Screens can display 3D models imported or selected from those included in the platform. Various advanced functions are provided to enable the design engineer to animate graphics with 3D model components and define sequences of rooms containing different 3D scenarios for viewing along a trajectory. The user can interact with dynamic real-time system data using 3D graphical components to create tri-dimensional and interactive user interfaces. The new graphical experience empowers users with the freedom to design mixed 2D and 3D solutions, using predisposed dynamic functions for associating real-time information with objects. At the same time users are free to create and integrate their own XAML designs to expand library contents.

Spectacular 2D and 3D graphics with astounding special effects can be created independently from the local screen or web screen. The different tools and capabilities include:

- 2D and 3D vector graphics with DirectX10 support
- Rich library of symbols and WPF objects preconfigured with top quality graphics
- Expanded support to graphical objects in XAML
- Extensive set of dynamic functions
- Support to all functions needed for manipulating objects in Runtime (zoom, drag, pinch, and more)
- Support to screen styles and layouts
- Full support of all multitouch functions
- Kinect (voice and gestures) support
- Native Windows 8 tile interface and automatic project navigation support
New generation graphics libraries

Progea has invested significant resources to engage graphics and designers on a complete redesign of their product’s XAML-based symbol library and to exploit the most modern graphics solutions using different styles and storyboards. Users can deploy a rich variety of high quality graphics never seen before in SCADA/HMI, all included in the platform and contained in the object and symbol libraries for every industrial use. Users can expand their design creativity with a library rich in high quality static and dynamic symbols plus a toolbox of graphical objects, including pre-configured complex objects. Combining these with a powerful integrated vector WPF graphics editor empowers designer creativity with extended technical capabilities to enhance transparency, fading, shading and shadow effects. In addition to the Movicon.NExT™ graphical object libraries, this platform provides users with ample freedom for graphical expression with XAML. This allows new symbols and objects to be created using Expression Blend graphics, dynamic use of storyboards, and full support to user control customized with Visual Studio.
Movicon.NExT™ offers efficient all-in-one solutions for creating powerful graphical HMI and SCADA interfaces with great effect. The toolbox includes objects purposely designed for viewing data and information from server modules, such as the Historian, Schedulers, Alarm Management and more. Everything you will ever need has been integrated within Movicon.NExT™ for easy use even for the most complex visualization functionalities.

**Built-in geo-localization**

Movicon.NExT™ projects can be geo-localized. Integration with cartography and geographical maps allow the user to define geographic co-ordinates for specific screens or projects to dynamically display desired access points and information on maps. Using the navigation and zoom techniques within this geographical map system will simplify distributed information management in different territorial locations. Maps can be used to represent the operational status of localized projects to obtain a rapid geographic collocation of information and navigability.

**Multilanguage texts with simultaneous translation**

Each Movicon project can contain an unlimited number of text strings in any languages to localize the project with any language or character set (Unicode also includes UTF-16 code for Asian and Arabic characters). Texts are managed in the project’s string table which is fully compatible with Copy and Paste functions directly from editors such as MS Excel™ making Movicon™ projects truly international. Powerful built-in text management tools are specially designed to manage text faster, such as the automatic text translation of languages used in the project.

Any language can be changed and activated instantly, whether in Editor or Runtime mode. Specific languages can be activated for specific users when logging on and system fonts will adapt accordingly to the changed language.
The Movicon.NExT™ applications ensure the maximum level of security and reliability. The complete and robust users and password management, has been designed explicitly to guarantee that conformity to the stringent security norms is an integral part of project design that is achievable with simplicity. Movicon.NExT™ guarantees maximum data and system access protection managed with 1024 user levels and 16 access areas. Project users can be shared with Windows™ domain users with the option to centralize user profiles. All the necessary security criteria are fully integrated and configurable with a few clicks, and include features such as electronic signatures, unauthorized access attempt control checks, password expiration, automatic log-offs and audit trail management. In addition, Movicon™ offers the ability to define protection levels and user traceability directly in each tag, independent from the associated commands.

User and Password Management

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User Management

Movicon.NExT™ allows user profiles to be defined with mixed configurations among other project users, Runtime administrator users, Windows™ domain users and connected child project users. Users can also be associated with access privileges for actions and command functions and individually for project tags. The innovative Movicon.NExT™ user management is much more expandable and open than previous designs. Users can now be shared with different security management architectures using the membership feature.

Audit Trails

Audit trails can be applied to each data value and variation for recording and reporting each change with the subsequent, time stamp and the name of the user logged on when changes occurred.

FDA CFR21 Part 11 and GAMP5

All CFR21 Part 11 requirements have been implemented for creating FDA and GAMP5 ready projects with simplicity.
Robust, reliable and efficient I/O Server

I/O Data Server is the Platform.NExT™ communication model that guarantees a framework with efficient safe and reliable communication

The Platform.NExT™ I/O Data Server has been designed on extremely robust and reliable server architecture. The I/O data server engine manages real-time information by using the communication type defined in the network’s address space, the gathering point of all the variables connected to the various field devices. The Platform.NExT™ I/O Data Server supports all data types, including those defined in the data server OPC UA – PLC Open IEC1131 specifications, to allow users to freely define and customize their own data types including the most complex ones, breaking down the boundaries imposed by current technologies. Platform.NExT™ I/O data server uses the data communication model specified by OPC UA, to ensure that communication is efficient, open and secure. I/O driver management is also based on this model and uses the specific protocol managements for field devices such as Siemens, Rockwell, Omron, Modbus, Profinbus, Profinet, Konnex, EtherCAT, and PowerLink. The model provides maximum interoperability with OPC UA specifications, whether client or server, and supports all complex data specifications. The data server ensures excellent performance and server independence from the various types of connected clients, whether for local HMI or via Web visualization. Using these new technologies the system architecture can support very efficient data models and drastically reduce design engineering times by applying all engineering information to tags that are then propagated to connected objects. This enables properties to be centralized transforming the tags into true global information centers.

- Total Platform.NExT™ integration
- Simplified connectivity
- Full support to OPC UA client and server specifications
- Native and direct I/O drivers included in system
- Tag propagation property configuration
- Intelligent networking in OPC UA model
The Alarm Manager is the Platform.NExT™ Alarm Server module that enables complete and powerful management of alarms to guarantee that events are handled with maximum precision. Users are provided with a vast variety of detailed information to keep them constantly and completely updated on all ongoing plant system activities and situations. By using this vital information users will be prepared at all times to interact appropriately to reduce production downtime to a minimum and improve efficiency.

The Alarm Manager introduces new alarm functionalities and typologies, extending the conventional method of activation on event. Alarm activation can now be triggered on value deviation or rapid data change events to promote a better way of managing systems with simplicity. The alarm manager is configured with defaults according to the ISA S-18 standard but is completely customizable to support ON, OFF, ACK, RESET and SHELVE events.

All areas, analysis and filter functions (by time, area, severity, period, etc.) are supported and dynamically combinable with help. The Alarm Manager also records each alarm and event for its complete traceability using the Platform.NExT™ Virtual File System (VFS). Therefore the Alarm Manager module can also be used for configuring the event archive management whether on relational DB, local file or cloud.

Statistical Downtime Analysis

Plant production and maintenance managers need reliable tools capable of statistically analyzing plant downtimes during periods of production runs. The data analysis permits quick detection of critical points within the production process to allow improvements to be implemented and to maximize system efficiency and productivity. Without this information it would be difficult to improve productivity.

Platform.NExT™ integrates this powerful tool for managing analysis of events and production downtimes into reports of total and partial downtime plant system occurrences. Information can be represented in table format, pie charts or histograms, to individualize lists of alarm events and their classifications by “duration” (total time of all events of the same type) or by “frequency” (total number of occurrences of the same type) for the preselected time range and period. These reports can be displayed or printed on command or on event and can be exported in various formats [Excel, PDF, HTML]. They provide all the information and details on each individual alarm analyzed.
Displaying and Managing Alarms in Movicon.NExT™

Displaying Alarms from the Alarm Manager in Movicon.NExT™

The Alarm Window and the Historical Log Window are active alarm visualization tools and can be inserted as objects in any screen and configured just like other graphical objects from the toolbox. Alarm display objects can be built from symbols and templates that differ completely in style and can be added to the symbol library like other graphical objects. Movicon.NExT™ offers complete configuration of alarm visualizations and their operations, using either direct or customized commands. The display windows can be connected across networks where the display object becomes a “client” for displaying active alarms and historical logs originating from different network servers. Columns reporting alarm information can be configured to adapt to every visualization need. Among other interesting features, Movicon also provides users with the ability to instantly view histories of specific alarms and their occurrences. This is a great aid to simplify event analysis to improve productivity. There are all types of “sort-bys” and “filters” to help users obtain and display information transparently and intuitively.
Historian with databases in local DB or cloud

The Platform.NExT™ Historian module guarantees innovative process data recording with performances and security intact

It is essential that every modern production system ensure correct and efficient data recording to enable efficient analysis of crucial information to improve productivity. The Platform.NExT™ Historian module uses innovative criteria to record historical data, to archive plant system data on a database, hard disk, or Cloud to guarantee everlasting performance and security independently from the volume of data involved. Using the Progea Virtual File System (VFS) technology, the persistent data model integrated in Platform.NExT™ Historian enables project independence from servers and database formats so that users can define where to archive data independently from their project. Data can be archived locally on file, in a relational database (Microsoft SQL Server used for default), or in the cloud, using cloud computer technologies.

The server module can record variables using one or more Historian prototype definitions allowing user projects to easily adapt to client requirements without wasting time. The properties of each individual Historian prototype can be defined and configured with specific recording criteria (on event, change or cyclic), the value type to be sampled, (absolute, percentages, etc.) and data destination. Each individual tag defined in the address space can then be associated with a Historian model to create its own simple and flexible archive configuration. The Historian recording engine uses advanced compressed algorithms that increase performance and sustain the recording flow of huge data volumes.
Historical data managed by the Historian module are displayable using the powerful Movicon.NExT™ analysis tools

A major part of the Movicon.NExT™ HMI module toolbox allow database connectivity for representing and manipulating linked data tables, independently from the fact that they have been recorded by the Platform.NExT™ Historian engine. ComboBox, lists, grids and many other controls permit any interface type to be created for visualizing and manipulating data in database tables.

Trends, Data Analysis and Tables

Sophisticated Trend objects allow access to data and display curves representing process data behaviors. The Trends can be both dynamic or historical (run-pause) and provide sophisticated features for representing values graphically, with ample pen and legend customization. They allow data to be represented by time/date range and the use of other filters such as zooming, pen selecting, logarithmic scales, fit-into-one-page graphics, printing, etc. The Trends also can be configured in Runtime and the VBA feature provides maximum configurability to allow users to create their own powerful Trend Template objects. The Data Analysis objects have been extended to provide more sophisticated modes to perform effective and exclusive analysis on historical data with relating graphical representations. The Data Analysis objects allow users to apply fast analysis according to prefixed time/date ranges using comparison and overlapping curves. This includes, for example, analysis with sampling curves or comparing different periods (e.g. comparing values from one year to those from a previous year), where measures are taken by tracing lines between different chart points to obtain the difference in values.
The built-in powerful Report Manager offers Platform.NExT™ users a powerful and flexible tool for generating, performing, and distributing data reports to cover any data analysis requirement no matter how sophisticated. The analysis are performed on data recorded by the Platform such as archives managed by the Historian. Analysis and Reports can also be performed on any source of data as well as connecting to existing relational DBs of any type to offer the widest range of flexibility possible. The Report Manager module offers a visual object-oriented interface that enables the user to create Reports following a short step-by-step procedure or wizards and templates. By using the Report Manager, based on .NET technology, the user will be able to create powerful visual reports intuitively by using the tools provided in the toolbox. Once the data source has been established (i.e. database tables) the report can be easily built using fields, tables, statistics and 2D and 3D graphics. All types of analysis tools are supported such as multi-level filters, grouping and sort by, calculation or formula functions, Reports Master and Sub-Reports. The user can display, print or export their reports which support all export formats such as PDF, HTML, RTF, XPS, or Excel XLS and XLSX formats. A navigation tool has been provided for the user managing complex reports which can be used for mapping reports to be viewed in a hierarchy using the tree structure.

The Reports can be published through the Web by using the Web Reports module functions which are supported by the Web Reports Module. When projects are published via the web using the Web Server module, the report will be displayed via web using the Platform.NExT™ HTML5 technology.
Everything under control, with the modules Platform.NExT™

The Alarm Dispatcher is the Platform.NExT™ module for sending Alarm and Event notifications to operators

Unmanned or partially manned plant systems ensure information is supplied quickly to on-call duty staff to avoid unnecessary prolonged production downtimes. This is one of the reasons why all the project alarms can be configured to immediately notify predefined users. The Alarm Dispatcher is the Platform.NExT™ component for directly notifying personnel alarm events using SMS or e-mail, and is indicated for systems that must stay continuously connected (i.e. local network or Web). Notifications are sent to specified users or user groups. Notifications can be customized to be set at specific times, calendar dates, work shifts or on-call duty work shifts.

The Archive Manager module is used for archiving the Platform.NExT™ production and recipe data

Platform.NExT™ has a module for editing and activating extremely advanced Recipes that enable the archive management to be configured in asynchronous mode in respect to the Address Space. The configurator allows Recipe objects to be managed with data layouts, freely configurable user interfaces and connectivity to independent devices. Functions have also been included for downloading and uploading recipe data in “atomic” mode, made possible by functionalities provided specifically for these purposes in the Data Server’s I/O drivers.
Scheduler Server Module for scheduling commands and events

This function and command scheduler server module has been purposely designed to make object configuring extremely easy and functional to perform specific functions according to a time schedule or planned expiry date. This module function as an independent Server within the platform, and receives which commands to activate and deactivate according to scheduled activation expiry times (repetitive or cyclic, preset date and time) both in develop and runtime mode. Configuration operations can also be performed in runtime on HMI client side using a predisposed graphical object for this task that is available from the Movicon.NExT™ toolbox.

Integrating new and third party modules in Platform.NExT™

The Platform.NExT™ technology has been purposely designed to be modular and scalable. In addition to the suite of function modules provided by Progea, users can also develop and add new modules in the platform of their own for creating vertical and integrated solutions. This gives users the advantage of using the platform’s functions to optimize their work, increase potentiality and reduce development time and management costs. Progea offers wizard models for Ms Visual Studio 2012 to provide users with all they need for building their function modules in as little as possible by using the .NET and C# technology. Furthermore, Progea can also provide documentation, SDKs and the necessary information to help user create their own vertical solutions to integrate with the Platform.NExT™ technology.
Project design openness with integrated VB.NET language

Platform.NExT™ integrates a powerful VB.NET engine, capable of executing code compatible with the VB.NET standard (Visual Basic for .NET™), with a vast and powerful set of APIs. Not only are event and method properties provided to customize any type of system functionality, but they can be used to gain full access to your system’s .NET world. Scripts can be executed as normal routines or embedded in objects in response to events, such as the alarm, template or data logger graphical objects. The Platform.NExT™ VB.NET language guarantees multithreading, which means that different VBA script can be executed simultaneously, offering unmatched solutions that no other system using standard languages can offer. The powerful debugger also provides step-by-step, breakpoint and other execution types.

The expression generator

The symbols and objects of the Platform.NExT™ graphical interface offer the option to use a “VET.NET Expression Generator” to edit logic expressions with or without Tags, directly in the object itself. The resulting expression value will be considered as the value to display or manage simplifying the most complex data display functionality.
The true modern automation concept places emphasis on the necessity to access your automation system data from any point at any moment. Using the web to access, manage or view production process information, with total security, is essential to all users, maintenance personnel, production managers and company managers in general. The Platform.NExT™ Web Server module is an excellent function designed to make remote access happen using the most modern and innovative web technologies of HTML5 and Silverlight. The Movicon.NExT™ configurator is used for creating the graphical interface displayed over the web independently from the fact that it can also be displayed by HMI Clients.

Communication is established through the I/O Data Server, or directly with OPC UA. The Web Server’s task is to manage local instances and publish data over the web. The Web Client stations permit command activation as defined on servers using the same adopted security for accessing commands. All access and commands are traced and recorded on the server’s log. In addition, Web Client station log on is completely independent from other stations, where other users can log on with different privilege levels using the multi-user concept.

- Access and view project via the Web using any browser with any operating system with Silverlight and HTML5 technology support
- Creating web pages on the server is completely automatic with a click of the mouse
- Project screen browser navigation defined on Server with user login, access control and option to restrict navigation on the web side
- No need for additional installations or configuring on client or server
- Enhanced performance and transparent support to project functionalities and commands using normal browsers
- Data management security
- Enhanced performances and event notification only
- Communication based on Web services
- Multiplatform support, no software to be distributed or installed, application centralized on server side
Cross-Platform Visualization with HTML5 and Silverlight

HTML5 is the standard that defines a series of technologies, which substantially include all the most recent technology innovations concerning web development and engineering web applications. By surpassing the usual constraints met in web technology, the new HTML5 technology empowers you to define new semantic functions, storage, API for device access, web sockets, webworkers and graphical solutions, multimedia and 2D/3D never thought possible before in standard and cross-platform technologies. By supporting this standard, the Movicon Web Client technology is able to offer users true standard and cross-platform web architecture which is portable on any PC, operating system, browser and mobile device. The advantage of having a cross-platform solution is that it permits accessibility to projects anywhere and everywhere with perfect graphic rendering all guaranteed in total security. However, unlike solutions based on Silverlight, HTML5 requires the server to process client data in part and in doing so may affect performances slightly. This does not exclude the fact that HTML5 is an open standard that will empower you with full interoperability within any platform.

Microsoft Silverlight is a free plug-in that can be used in platforms (PC and Mac) and browsers to provide content and multimedia services based on Microsoft .NET and Rich Interactive Application (RIA) applications for the Web. With the Silverlight technology, the Platform.NExT™ Web Server is capable of managing application remote instances, allowing the client side to obtain the same graphical functionality and performance of extremely advanced servers. The Web Client does not require any additional installations to use Silverlight and the server is automatically configured to make projects accessible via the web with just one mouse click. Although the Silverlight plug-in is required on the client side, it has the e-graphics and high performing technology crucial for obtaining successful Web Client solutions that are not completely cross-platform. With the XAML technology on which the Movicon.NExT™ is based, the availability of graphical real-time system data representations are at your complete disposal for using in architectures based on web and mobile devices such as smartphones and tablets.
Progea promotes and greatly encourages active knowledge sharing. Users can take full advantage of the user community to exchange know-how, tips and advice and use the web tools administered by Progea to access all technical information about platform technology life cycles. Progea organizes events for the Community along with information programs and free training courses. The website provides Forums, Blogs, bugbase, KnowledgeBase, Examples and much more to the full discretion of users to access and manipulate.

Movicon™ Community

Progea as a company has always place emphasis on product quality which has become a central point of their activity. The entire company, including product development and validation processes, are System Quality certified according to the ISO 9001:2008 specifications, with additional audits in compliance with the EN50128 SIL0 requirements. In addition to this Progea guarantees excellent customer care services essential for those who work in the critical automation processes such as process control and infrastructures.

Quality control

The Total Cost of Ownership Costs (TCO) of a software platform is greatly influenced by the quality of its correlated services. Every user company is well aware that even the best products can induce indirect expenditure for the end user if not properly supported. Important parameters such as learning time, response time, quality services, even though not directly linked to product such as customer care, are generally considered the true Added Value of a software product. The relationship between Product Company and Consumer in the software sector is ‘different’, it is considered a ‘partnership’. Movicon™ is designed on the simplicity-of-use criterion, correlated with complete documentation and website dedicated to support services and provided to enrich the knowledge of the developer community with useful information and examples to minimize their need to revert to the Technical Help services. Furthermore, Progea is unique in providing quality services that only a product company can ensure and provide. Training, technical help and customer care guarantee the user the support they need to confront and resolve any application need whether planned or unexpected, contributing to reducing installation and internal development costs. Progea is directly presented through and by its offices in Italy, Germany and the USA, in addition to an international network which supports and guarantees the Movicon™ brand name worldwide.

Value-added services

Movicon™ is a well-known product used in automation by leading companies from every industrial sector and has more than 80,000 licenses installed worldwide. As a demonstration of the Movicon™ product’s quality and reliability, Progea is honored for being chosen by the leading players in the industrial automation sector. The Progea technology is also used and distributed under a variety of brand names by international companies, including Phoenix Contact, Panasonic, ABB, ASEM, VIPA, Suetron and many more.

A solid partnership

Movicon™ is known for its openness to the outside world, an aspect that favors the quality of its services and the creation of a dynamic and revitalizing environment. The company’s commitment to the growth and training of the professional market is constantly present, in line with the high standards of quality, safety and sustainability of its products which are its distinctive elements. This approach allows Progea to achieve excellence in all fields, demonstrating the quality of its services through the involvement of a large community of users. This commitment encourages the spread of new ideas, strategies, and visions of life, realizing the following key words: success, teamwork, innovation, progress, leadership, creativity, ambition, strategy.
Progea represents more than 20 years of software technology excellence in every industrial automation sector

Progea offers open and flexible crossover solutions for various civil and industrial automation sectors. Our software platforms are installed all over the world to manage and control all types of automation sectors, which include:

- Food & Beverage
- Automotive
- Process Control
- Water Treatment
- Oil & Gas
- Infrastructure
- Manufacturing
- Energy