Open and flexible SCADA/HMI software
Movicon™ 11 is the secure and reliable solution for all those companies needing to develop and maintain supervisory, control and data acquisition software applications with operator interface where data can be accessed remotely or from mobile systems. With exclusive “XML-Inside” technology the revolutionary Movicon™ 11 innovations offer a comprehensive development environment for managing HMI, SCADA, Logic and statistical production data analysis applications enabling design engineers to minimize development time and provide users with powerful, open, flexible and easy to maintain solutions.

Movicon™ 11 is based on classic and consolidated technology for SCADA/HMI platforms, with unrivalled transparency, simplicity and performances. Movicon™ 11 is unique SCADA/HMI software completely based on XML standards and affirmed and open technologies such as Vector Graphics, SVG graphics, OPC UA, SQL, ODBC, .Net in addition to the HTML5 technology and Apps for Web Client solutions.

Movicon™ 11 is a standard software for all those operating in industrial automation, remote control, utilities and building automation. A truly universal Scada/HMI platform, independent from hardware, adaptable and deployable absolutely anywhere. Movicon™ offers an all-in-one platform that can be used at any level whether HMI operator panels and/or mobile devices based on WinCE, or personal computers in large industrial plant systems with client/server redundancy architecture and connectivity to any PLC, network and industrial or civil fieldbus.

Your company’s success depends on the openness and independence of your applications as well as the time and resources spend in developing them.
Flexible Supervision

Protect your investments with the most innovative and modern software technology ever

Flexibility - adapting quickly to client demands without sacrificing work or know-how - is a major requirement of modern automation. In this capacity Movicon™ 11 can highly guarantee protection of your investments simply because this all-inclusive software deployed in your company will satisfy all your automation application needs. Movicon™ 11 is a flexible platform that can adapt to all modern automation application technologies from control level (PLC, HMI) right through to SCADA/MES enterprise levels. Thus Movicon™ 11 is the one visualization and control software that will fulfill your every company need to enable you to reduce costs and time spent on learning, upgrading and personnel training. The revolutionary Movicon™ 11 gives new meaning to the modern concepts of industrial supervision.

Not only does Movicon™ 11 provide you with a vast variety of tools for creating powerful visualization and control projects within a few clicks, it also incorporates the most consolidated technologies to enable easy application integration with the entire world. It achieves this by distributing information towards enterprise information management systems (i.e. MES and ERP), and by distributing information to local or remote clients across the web. Your plant system can be accessed safely from any part of the world and via any platform using the true “web-enabled” architecture that uses multi-platform and the security of HTML5 as well as specific APPs for Android and iOS. Deploying Movicon™ 11 will enable you to realize any type of supervision application, be it simple or complex from I/O control to local HMI and visualization systems, from powerful Scada supervision and control applications to data acquisition and analysis systems for managing and optimizing productivity as well as pager systems for notifying on-call duty personnel by remote control – all without compromising other aspects of your work. Web-enabled management to or from anywhere; one open and secure flow of information with multi-system connectivity: all this can be accomplished with just one development platform. System integration can finally be an achieved reality with Movicon™ 11.
The software engineering costs alone of an automation project can estimate to exceed 80% of the total expenditure for an average construction job. This is reason enough to use planning tools capable of reducing development time by providing you with expert support and technical help services to protect your investment. Based on the modern concepts of innovation, Movicon™ 11 is specifically designed to provide all these advantages. Our extensive research and development combined with vast experience in supervision software, has enabled Progea to achieve the most cutting-edge quality and technology available in today’s industrial automation software market. Progea’s mission to provide an all-in-one platform has become a company standard realized through the creation of Movicon™ 11, where ideas merge with innovation to form a concrete technological baseline. These technological innovations will enable you to reduce your software ownership costs (i.e. training, support and maintenance). The specially designed and intuitive tools of Movicon™ 11 will drastically reduce development and application debug times making it essential software for companies that use SCADA/HMI systems and need to keep their work safe and protected.

Whatever It Is You Need To Build:
We can help you do it in less time
Scalability
Movicon™ 11 is an all-in-one software platform that works with Windows™ 10 (Win32/64) to Windows™ CE. It is the only platform your company will ever need. It is perfect to use for micro applications in HMI terminals and medium-to-large ‘enterprise’ supervision applications for processes at manufacturing plants.

Openness
Movicon™ 11 is completely based on XML. Thus projects are simple XML files, which can be opened and edited with any other editor and are fully open to integration and customization with the world of Windows™ applications. Projects can also be grouped into hierarchical structures then distributed and shared.

Security
Movicon™ 11 guarantees maximum data security. Although based on XML, the projects can still be encrypted with 128-bit coding algorithms. The platform is FDA 21 CFR Part 11 making it easy to create FDA ready applications with great ease. The user and password manager guarantees safe access by providing 1024 levels and/or areas, while the built-in redundancy feature makes Movicon™ 11 ideal for ‘mission critical’ applications.

Standards
Movicon™ 11 is completely based on standard technologies to ensure that your investments are safeguarded. The built-in XML, ODBC, OPC, VBA, SOAP, Web Services, TCP-IP and SQL technologies guarantee easy data access and transparency.

Excellent Graphics with Multitouch
Movicon™ 11 offers a vectorial graphics engine based on SVG (Scalable Vectorial Graphics), with graphics that not only support multi-touch but are also independent from screen along with a great variety of libraries containing a generous range of preconfigured objects and symbols, all of which can be customized using Power Template technology.

Performances
Movicon™ 11 enhances performances by renewing its “exception-based” technology and optimizes real-time data concepts. The historical logging features offer open, high-performing and reliable solutions.

Connectivity
Movicon™ 11 includes a native library containing a complete range of communication drivers that come with all the essential features including an automatic Tag importer, remote connectivity via modem, multi-station concept for point-to-point protocols, bridging concept for teleservices in PLCs and instant cable-testing. The drivers guarantee full configurability with the option to customize on event communications. The SDK and shared memory driver guarantee openness for the autonomous creation of your own drivers. Movicon™ 11 also includes a free driver library as well as full connectivity via OPC as either Client or Server.

Very Efficient Networking
Movicon™ 11 has sophisticated networking technology that is capable of instantly connecting any HMI or SCADA station with one another in the same network. Any Movicon application can be a network server for other stations, (such as WinCE or Wintol). It takes just a few clicks to connect client stations. Efficiency and performances are guaranteed by event-driven technology and other emergent and multiplatform technologies such as SOAP (Simple Object Access Protocol) and SOA (Service Oriented Application). Movicon™ projects can be used as server and client either individually or both simultaneously. Client projects can also be distributed and run locally on the client while residing on the main server. The Movicon™ networking is adaptable to any enterprise network integration according to network administrator requirements: TCP-IP as well as UDP and HTTP protocols are all supported. The networking feature automatically manages remote connections via RAS. Movicon™ 11 integrates the web services technology, consenting to support information distribution to public networks (over the Internet).

HTML5 Web-Enabled Architecture
Movicon™11 offers the best web client technology. Due to its innovative architecture based on HTML5 and APPs for iOS and Android aw well as the JAVA applet, the server offers instant access using Internet browsers on any PC platform, smartphone or tablet (e.g. iPhone and Android). Multi-user ability, bi-directionality and security are all guaranteed and enable cost reductions and reductions as well. The servers are scalable from Windows™ 10 to Windows Embedded and Windows™ CE.

Mission Critical
Movicon™ 11 integrates redundancy functions to ensure operation in any condition for mission critical applications. Hot backup and synchronization of dynamic data and historicals are completely automatic and high performing.
Avante-garde Technology for Everyone

The Movicon™ 11 workspace is the result of intense research in software ergonomics with the aim of creating a simple product that is a pleasure to use. Movicon™ 11 drastically reduces development time because it provides every imaginable tool and functionality available and ready-to-use in one environment. Movicon™ 11 outshines any other product currently available on the market because of its simplicity-of-use and intuitive features, including intelligent Editors, integrated wizards and Tag importer tools. Design engineering need no longer be a chore but instead a pleasure with immediate effect with Movicon™ 11. Get great visual impact within a few clicks and rest assured that your investments are safeguarded.
Combining power with simplicity is not an easy task. You may often find that easy-to-use software systems tend to have restricted abilities. On the other hand, software that claim to be powerful is often too complex to use. Movicon™ has been able to remedy these drawbacks and overcome such restrictions. As the only SCADA/HMI platform thoroughly tested for usability and ergonomics (in collaboration with university computer science research departments) with optimum results, Movicon™ has been intelligently designed to suit all user demands allowing users to save time while becoming more productive - the result is maximum deployment flexibility capacity with unrestricted potentiality. The Movicon™ 11 workspace is transparent, pleasant and intuitive. All the tools are ready-to-use within easy reach. Configuration tasks are entirely performed using a vast range of object libraries and resources all of which are fully customizable through their properties window. Moreover, the property windows can be moved, positioned and docked according to preference while providing property information logically divided by group and sub-groups. Using the vast range of available configuration properties, you will no longer have to fully rely on script code saving time during planning, project debugging and maintenance. The main features of the intelligent Movicon™ 11 Editor are:

- Extreme simplicity-of-use with a single built-in editor which can be used to create projects for Windows™ 10, Windows™ CE and Web Client. There is no need to install additional components to create applications.
- Configurable workspace, with floating or normal windows shortcut commands and quick-to-configure pop-up windows
- Easy-mode configuring displays only the most common properties for user discretion and enhanced simplicity of use.
- Refactoring, tools for automatic correction of tags erroneously assigned to objects, windows and missing text strings.
- Enhanced cross referencing that is built-in and interactive to allow constant control of variables used in projects. Users can auto-create projects using wizards with project templates and create new wizards to reduce project development time.
- Projects based on XML and open, including an "XML code" window for displaying and modifying objects directly in XML text. Macros can be created for auto-generating projects or parts of projects in custom mode. Projects can then be encrypted when desired.
- Object-oriented programming environment with powerful vector graphics.
- Symbol libraries and templates: Power Templates© technology manages complex object libraries with integrated VBA code. It also features centralizable and expandable libraries along with template management for Alarms, Data Logger, Events, Schedulers, Alias and Public Symbol management featuring heredity.
- A sophisticated alias and parameterization management of data and variables for indexing symbols, screens, scripts and other functionalities.
- System explicitly designed System explicitly designed with built-in FDA 21 CFR Part 11 normative adherence.
- Free I/O Drivers included with automatic tag importing from PLC with direct link to device. Libraries can be added to and customized with SDK.
- Powerful On-Line Debugger with functions to analyse and simulate projects locally and in remote mode.
- "On Line" project modification. hat lets you upload and download modifications using remote control.
- Simple direct redundant server configuration with automatic connected client switch over and historical log synchronization.
Powerful graphics account for better application intuitivity

Production process visualization is paramount in any supervision system. The more transparent a process visualization becomes, the more efficiently a factory is run. More than ever users are looking for a more realistic presentation of their plant systems. Therefore Graphics play a defining role in accomplishing that realism but can be a time consuming task when developing projects. This is one of the areas where Movicon™ 11 demonstrates its superiority in terms of powerful graphics features and speed:

- **Vectorial Graphics Editor** and SVG-based technology (Scalable Vectorial Graphics) with anti-aliasing management.
- **Real object and symbol oriented programming** allow you to point & click even the most complex objects.
- **Screens visualized in hierarchical tree structures** with intuitive selecting. Symbols do not need ungrouping and regrouping to configure their components, no matter how complex they are.
- **Dynamic Property Explorer** for quick access to symbol properties, variables and code.
- **Import-Export vectorial symbols** transition to and from the most popular Windows™ vector formats.
- **Toolbox** is rich in functional graphical objects (i.e. buttons, switches, gauges) pre-built and specific to every need.
- **Supports all bitmat graphics files** such as BMP, GIF, JPG, TIF, PNG and WMF and EMF files. Supports color transparency.
- **Analog viewer library integrated** with eye-catching and realistic graphics.
- **Powerful animation graphics**, that in addition to the 16 dynamic animation functions that are configurable in each object’s properties can be modified with the API graphics functions using VBA.
- **Complete set of functions**, for zooming, grids, alignment, multiple distributions, layer order, tab order, multi-selection property settings and much more.

"Captivating" Visualization
• **Library rich in pre-built symbol graphics**, organized in a multitude of various categories, ready for immediate previewing and Drag & Dropping on screen. Option to create your own symbols and new categories.

• **Exclusive Power Templates® technology**, for creating symbols with preset functions, simple animation associations with powerful integrated VBA script functions. The Power Template technology makes it possible to auto-configure projects simply by inserting symbols on screen.

• **Auto-resizing to screen or windows** resolution for vectorial bitmap graphics (Raster). The auto-adapt feature is also available for Web Client visualization.

• **Built-in support to multi-monitor systems** makes it possible to set which monitor screen should open.

• **Graphical object XML structure** can be inspected internally as well as externally with external programs and editors. Complex objects can therefore be edited through their properties in ‘text’ mode to speed up copy and paste or ‘find-replace’ operations.

• **Graphics Editor for managing menus** (pop-up or bar style menu) and assigning keyboard commands. Powerful drop-down menus can be created directly and visually.

• **Support to Symbol heredity and Alias technology.** Public symbol modifications can be propagated to symbols belonging to the same category. The Alias management enables symbols to be customized (both in runtime and development mode) in function with their Alias tables.

• **Supports different Windows styles and themes technologies.** Project and screen aspects can be changed according to their pre-assigned styles.

• **Built-in native objects** for visualizing images transmitted from IP cameras and also in WinCE and WebClient.
Alarms: All under control

Monitoring, Archiving, Notifying and Analyzing: You couldn’t ask for more

The powerful Movicon™ 11 alarm management guarantees maximum precision in managing events and provides users with a rich source of information to provide continuous and immediate feedback on ongoing plant situations to improve efficiency and reduce production downtimes. The Alarms are managed by default according to the ISA S-18 normative, but are completely customizable and manageable as objects with numerous properties adaptable to every need. The activation thresholds, whether fixed or changeable, determine alarm activation statuses (i.e. ON, OFF, ACK and RST), and Active Alarms are displayed and managed graphically in the Alarm window or as banners with various filter options (i.e. time, area, priority and period). It includes the option to link dynamic help and guidelines from external files (CHM, HTML, PDF). Alarm intervention times can be configured by choosing an activation time from the Alarm window or as banners with various filter options (i.e. time, area, priority and period). It includes the option to link dynamic help and guidelines from external files (CHM, HTML, PDF). Alarm intervention times can be configured by choosing an activation time from external files (CHM, HTML, PDF). Alarm intervention times can be configured by choosing an activation time from external files (CHM, HTML, PDF). Alarm intervention times can be configured by choosing an activation time from external files (CHM, HTML, PDF).

The alarm history management uses historical logs to automatically record all events (alarms, driver or system events) in archives in relational database tables using the powerful ODBC Manager either in text or XML files. Meanwhile, data archiving (Ms SQL Server as for default) guarantees maximum openness, providing file management in SQL Servers and others (such as Oracle) with the utmost transparency to users and projects. Historical log files are recycled until they reach their life expiration dates, which are set in the project’s properties. The strategically-built Historical Log window automatically logs and forwards data and displays it in the preferred order format (i.e. chronological, by type, by priority order,). The alarms support template technology, which allows parameterizing repetitive alarms, as well as providing tools and wizards for fast development and configuration.

Analyzing, Filtering and Order by Options

The Alarm Window and the Historical Log Window are tools used for displaying active or field alarms. They can be inserted as objects in any screen and configured like any other object from the toolbox. Alarm viewer objects can be created with different symbol and template styles and added to the symbol libraries as new objects. Movicon™ offers totally operable and configurable alarm windows with direct or custom commands. Display windows can be connected to network servers, transforming viewer objects into "client" objects for displaying active network server alarms as well as their history. The alarm data columns can be configured as needed and active alarms feature their history of occurrences and statuses directly and immediately in the Alarm window, a handy feature for simplifying event analysis activities for improving productivity. All "order by" and "filter" options are provided to display information in the most transparent and intuitive way possible.
**Statistical Analyzer**

Tools capable of statically analyzing machine downtimes during production runtimes are crucial to factory production and maintenance managers. The data analysis quickly detects any critical points within the production process to enhance plant system efficiency and productivity. It is difficult to improve productivity without this information. This powerful tool is used for managing events and production downtimes analytically in order to generate reports on total or partial plant downtimes. This information is displayed in table, pie or histogram chart format providing a list of alarm occurrences for the time frame specified and classified by "Duration" (total times of all the occurrences of the same type) or by "Frequency" (Total number of occurrences of the same type). The reports can be displayed and printed on command or upon events as desired and exported in various formats (Excel, PDF, HTML) providing all information in detail on each individual alarm analyzed.

**Alarm Dispatcher**

Unmanned or remote systems must guarantee and transmit information immediately to on-call duty staff to prevent prolonged production downtimes and delays in meeting production deadlines. Thus alarms play an important role and are configurable in all Movicon™ projects. The Movicon™ Alarm Dispatcher notifies events, sends alarm alerts to staff via voice technology (text-to-speech telephone notifications with voice synthesis), with SMS, e-Mail (with or without attachments) or by fax. MS Messenger is also an essential feature for plant systems connected in net 24/7 (local or web network). Notifications are sent to assigned users or user groups. Messages can be sent according to customizable time schedules, calendar dates, work shifts, and on-call duty staff shifts. The Alarm Dispatcher’s notification system is configurable for each event (ON, ACK, OFF and RST) as required and supports notifications in TTS SAPI S.1, e-mail; SMTP and MAPI protocols and SMS (GSM and SMPP) protocols.

**Programmed Maintenance and Instant Guidelines**

Movicon™ simplifies programmed maintenance management by allowing the user to activate alarms not only with the associated variable’s real value but also with its duration ‘statistics’ value. This makes it extremely simple to set activation thresholds on set-points relating to the variable’s total ON time. External files can be easily associated to activate userfriendly help files (HTML), movie files (.AVI), sound files (.WAV) or BMP files to support the system operator while they work.
Process data encryption and safe storage in your preferred relational database

Supervision systems collect, record and store process data for further reference and analysis. This data guarantees Production Managers all the information they need to assess for analysing ways to improve, pinpoint and isolate anomalous behavior. The Scada’s job is to promote data aggregation as well as to define and set data recording and archive management modes in the simplest way possible. Built on concepts of simplicity, reliability and openness Movicon™ 11 provides all the tools you will ever need to accomplish these goals. Movicon™ provides three recording engines, based on an ODBC Manager model to guarantee maximum performance in data precision and openness to also choose the most suitable data format. Movicon™ supports all relational databases by proposing an automatic selection among MS SQL Server™, MySQL™, Oracle 10™ or MSAccess via ODBC. Movicon™ uses the Microsoft SQL Server™ by default, until specified otherwise. Each of the three engines has different tasks: one records process data using the Data Logger resource, another historically logs events while the third manages the powerful and sophisticated task of tracing variables (Audit Trail). As an alternative to the ODBC recording engines, Movicon™ offers the use of an In-Memory DB (IMDB) manager which enables data (Data Loggers, Events or any other data) to be recorded in simple text format files (.DAT or .XML). These files can be encrypted to allow recorded data viewing exclusively through the Movicon™ controlled access modalities. The historical log management in IMDB can also be activated in part and is particularly indicated for Embedded systems (WinCE), and for those who wish to use data encryption.

Data Loggers
Data Loggers permit simple and fast process data recording. DB table records can be executed on preset time frequencies, events or variations (even over low band rates). Data recorded in databases is then automatically available within a given project through strategically designed graphical objects, which includes database table display windows, grids, trends and reports.

Recipes
The production recipes are object oriented and use the same recording techniques performed as the Data Loggers. The production recipes enable you to manage data archives containing working process parameters related to manufactured products. When selecting the product desired, the parameter values relating to the plant’s variables will activate. Object-oriented and adied by wizard technology, the recipe management is extremely easy to use in Movicon™. Simply create a “recipe” object, assign it the necessary variables and then simply press the “wizard” command. This process will automatically generate the recipe’s display window graphics with user interface, through which the graphics are completely customizable as desired by setting the various properties (styles, colors, etc.). As an alternative, the simple recipe display window object shown in grid format also lets you to manage recipe data automatically, using the more conventional viewing methods for greater further simplicity.
Report Designer
Movicon™ offers a powerful and unmatched Report management. The Crystal Report® tool used in earlier versions is still available for generating .RPT files such as system management reports, displayed and printed by Movicon™ with the built-in Crystal Report® Engine. However, Movicon™ 11 now includes an additional powerful built-in Report Designer based on the .Net technology. The Report Designer is used for generating powerful visual reports with statistical and graphical chart and graph functions to enhance the simplicity of generating reports within the same project. The Movicon™ Report Designer is one of the most powerful reporting tools to have in any Scada system. The Textual Report feature is easy to use for creating reports in RTF or HTML files for simple compact systems (such as WinCE) as well.

Trends and Data Analysis
Tightly linked to the Data Loggers the Trends are graphical objects predisposed to display curves related to process data behavior. The Trends can be dynamical and historical (run-pause) and are ideal for displaying values graphically and offer a variety of options for customizing pens and legends. The Trends can be directly linked to Data Loggers so that data will be displayed according to time range and other filter types. The Trends also come with a zooming feature, a selection of pen types and logarithm scales. They can be shrunk to fit perfectly into one screen or they can be printed. Completely configurable in runtime, they can become truly powerful Trend Template objects using VBA functions. The Data Analysis, capable of quickly analyzing data according to predefined time periods using comparisons and overlapping curve methods, is a more sophisticated feature than the Trends. It is used for producing graphical visualization of historical data recorded by the Data Loggers. For instance, an analysis based on sample curves or one comparing different time ranges (i.e. comparing one year’s values with that of the previous year), will be measured instantly by tracing the lines between the various points in the graph to obtain the value differences.
High speed communication is paramount into any type of automation system. Supervision systems are meeting points for all process data. They are the crossroads of the non-stop production information flow of enterprise-wide systems. Communication thus plays a strategic role deeply rooted in Movicon™ 11 which features tools purposely designed to promote faster, smoother and more transparent data flow than ever before. Movicon™ 11 also provides users with a rich library of native built-in I/O Drivers included free with the product. Communication with control systems (PLC, CNC, instrumentation, fieldbus) has never been so quick to configure and perform. Helpful Wizards aid automatic importing and configure project variables directly from the PLC to save time and reduce risk of errors. The I/O Driver library supports all PLCs and systems found on the market today, and can be amplified by third parties using a SDK.

OPC UA Technology
In addition to the I/O Drivers, Movicon™ also fully integrates the OPC UA and DA technology both as OPC Client and OPC Server. The new OPC UA technology is available starting from the 11.5 version to meet the latest connectivity demands as required by Industry 4.0 and Internet of Things. Connectivity to OPC Servers is guided and simplified to reduce configuration time with automatic tag creation in OPC Server items. The product is subject to the OPC Foundation certification of which Progea is a member.

Networking Supremacy
The client-server architecture is guaranteed with built-in features for dynamic information and project distribution across networks. The Movicon™ networking technology, based on the Web Services and SOAP, is the most advanced available today. Information (tags) sharing between the Movicon™ workstations is direct and instant with a double-click at the client station. The server stations can be based in Windows™ 10 or Windows™ CE Windows indifferently. Communication in net uses TCP-IP transport for default and can be completely customizable to suit every need by network administrator users through modifying a project’s network server properties as required.

RealTime I/O ODBC Link
Movicon™ includes a crucial feature that allows connectivity towards enterprise-wide information systems. Each tag has a read-write connection property to an external relational DB. All or part of a project’s Real-Time DB can be shared automatically and is transparent, allowing real-time information sharing of plant floor information with business managerial systems.

Integration and SDK Openness
Movicon™ 11 provides maximum openness to custom communication systems. A 'neutral' driver permits access to real-time variables using the shared memory. Movicon™ 11 permits total third party component and object management, such as DLL, ActiveX or OCK, any of which can also be used for managing communications with the system. A strategically designed SDK driver toolkit allows you to autonomously create new Movicon drivers. Movicon™ also supports OLE technology through registering applications in the Windows™ ROT so that other applications can manipulate projects during runtime.
The Movicon™ 11 applications guarantee maximum security and reliability. The user and password management, complete and robust, has been explicitly designed to ensure that projects are created with simplicity and integrated FDA 21CFR part 11 compliant (the United States Food and Drug Administration). Movicon™ 11 ensures maximum data and system access protection with 1024 user levels and 16 access levels. Project users can be shared with the Window™ Domain including options to integrate and centralize user data profiles. Security criteria is complete, fully integrated and configurable with a few clicks and includes the Electronic Signature management, unauthorized and undesired access attempts controls, password expirations, automatic log-off and Audit Trail management. Movicon™ allows you to define different protection levels and to have traceability directly within each single tag, independently from their associated commands. Furthermore, Movicon™ supports Windows™ Services and consents total or partial blocked allows Windows™ desktop. Data are recorded on safe relational databases (SQL Server or Oracle) and in our proprietary 128 bit encryption format.

User Management
Movicon™ 11 provides options to have mixed project user affiliations, such as runtime administrator user, Windows™ domain user and linked “Child” project user configurations in user data profile definitions. User access privileges can be associated not only with actions and command functions but also with individual project tags.

FDA CFR21 Part11 & GAMP5
Movicon™ 11 is completely 21CFR Part 11 compliant, making it ready to create FDA or GAMP valid projects with great ease for both sophisticated Scada systems based on Windows Servers and simple HMI based on Windows™ CE.

Redundancy (Hot Backup)
With powerful redundancy management for mission critical applications Movicon™ 11 guarantees reliability, deriving from our more than 25 year experience operating in the industrial automation sector. Mission critical applications can make use of the powerful integrated redundancy functions, where two Movicon™ servers work together in hot backup mode to manage and keep applications safe under in all situations. The Movicon™ redundancy is completely automatic and transparent, managing data synchronization for both historical and dynamic data to guarantee the efficient and safe data integrity in any situation no matter how serious.
Every developer is well aware of how essential it is to have a wide range of tools left at their discretion in order to create and deliver projects to meet end-client requirement and satisfaction. Movicon™ 11 has been designed to do just that by offering a wide range of functionalities, native and integrated in the platform to fulfill every developer’s needs. These functionalities include a great variety of resources and objects, pre-built and totally configurable to satisfy every industrial and civil supervision need. They have been designed to help the user create sophisticated projects in the simplest and clearly guided-way possible.

Schedulers
Scheduler objects represent innovation at its best offering you numerous functionalities for maximum configurability. These objects are executable in runtime mode and based on different pre-settable time ranges. The Movicon™ schedulers manage different calendar dates and plans, with freely configurable time formats, for any command type. This provides the user with greater freedom to establish which commands or events to schedule for activation in their own calendar date plan or holiday plans. The schedulers are powerful visual planners fully supported in both Web Client and Windows CE runtime.

Event Objects
All the project commands can be managed through event objects within the project. Command lists can be defined and configured using a wide range of predisposed functionalities and actions. Event objects are great time savers and there is no need to write code because command actions can be executed within a project linked to events generated by variables (tags) or actions associated withcommand objects (e.g. buttons and menus).

Touch Screen and Multitouch
One of the key requirements for a supervisor is to provide full support to HMI devices without keyboards (i.e. via touch screens). All objects requiring data settings are associable with virtual system keyboards (NumPad or Alphanum Pad) or custom alternatives making the system automatic and predisposed to touch screen support with ease and simplicity. Furthermore, the Movicon™ virtual keyboard graphics are totally customizable. Movicon™ 11 introduces support of multitouch gestures including pinching, zooming, dragging and panning to view or change pages, multi-touching or tapping several points or objects simultaneously and other touch techniques.

Keyboard Management
Keyboard management generally allows you to create commands associated with keys or combo-keys known as ‘accelerators’ or ‘shortcuts’. These very useful functions are indispensable to systems without mouse pointer devices or touch screens. Movicon™ 11 allows you to manage commands in the project’s ‘shortcut’ resource by associating keys directly within the graphical object properties to create command equivalences.

Scaling and Statistics in Tags
Tags can be defined with intelligent scaling parameters (engineering unit conversions). Purpose-built ‘Scaling’ objects permit further conversions, allowing the more complicated “non linear conversions” to be managed with simplicity. In addition, all tags allow you to manage statistical values such as minimum and maximum, average, total time ON values using daily, monthly and yearly parameters.

An editor rich in functionalities and objects means writing less code and spending less time in developing projects
The Movicon™ 11 projects are truly “international” and can contain all text strings in an unlimited number of languages. Projects can be localized to any language with any character type (including Unicode also with UTF-16 coding for Asian and Arabic characters). The texts can be managed in a string table within the project and directly supports copy & paste from the MS Excel™ Editor. Each language corresponds with an XML text file and can be changed and activated instantly when necessary in edit and runtime modes. Different languages can be associated with different users enabling the system font to change automatically according to the language of the user logging on.

**Menu editor**

Movicon™ provides the usual “Menu” resource, allowing you to create menu and submenu objects structured on managing commands within the project user interface. Pop-up menus or custom system menus committed to the active window can be edited visually.

**Speech Recognition**

Movicon™ supports the speech recognition functionality that can be defined in shortcut objects to enable commands, associated with keyboard key strokes, to activate on vocal command operations once the request is acknowledged and confirmed by the integrated Speech Recognition system.

**IP Camera support**

Movicon™ supports a very handy native and integrated video IP camera that functions with Ethernet. The IP camera viewer object is located in the Movicon™ 11 toolbox and is managed in the same way as the other objects. When used on screen it shows streaming video images from the IP video camera. The images can also be transmitted via web or shown on HMI panels based on Windows CE.

**Project Upload**

Movicon™ integrates project and project modification uploading services to target devices in both local and public networks. These intelligent upload functions are also accompanied by other commands (such as run-stop and debug) for performing operations in remote projects.

**Windows Services Support**

With one simple command the Movicon™ project can be run as ‘Windows Service’. Full operating system integration is easy with the option to completely customize desktop access management, system key usage, CTRL+ALT+CANC, and other similar functions.
Object oriented programming may not always be capable of delivering solutions to suit the particularities of complicated demands and requirements. Even though one of the roles of a SCADA platform is to reduce or avoid the use of script and code this is not always possible. Using code or script may become indispensable when performing calculations, functions or customizing the more complex functionalities, such as those used for accessing databases, managing ActiveX, OCX, or special peripherals, algorithms and calculation functions. Whatever needs to be done can be with Movicon™ 11 and its built-in languages, sure to accomplish unmatched solutions to suit every need.

VBA / VB.NET Language
Movicon™ 11 has a powerful integrated Visual basic for Applications™ (VBA) engine, capable of executing code perfectly compatible with the VBA standard using the powerful and immense range of APIs. Properties, events and methods are available for customizing any system functionality type. The VBA scripts can be executed as normal routines or encapsulated in objects in response to events such as graphical objects, alarm objects, templates or data loggers.

The Movicon™ 11 VBA language guarantees multithreading so that a number of different VBA script can be executed at the same time to provide solutions that no other system using standard language can offer. The powerful debugger can perform step-by-step, break-point, in addition to its other features. The new Movicon™ 11 VBA engine supports VB.Net technology, so that VB.Net syntax can now be used to manage software components based on the .Net technology. The Movicon™ 11 VBA engine is also integrated into versions for Windows™ CE, guaranteeing maximum performances and maintenance of the same projects in WinCE systems.

Expression Generator
Movicon™ 11 provides a VBA expression generator to edit expressions directly in objects, as an alternative to using tags.

Logic Language
Movicon™ 11 integrates another language type called IL logic which is a sequential combinatory type (i.e. a Combined Logic Result: CLR) typically used by PLCs (Instruction Lists or AWL) a Movicon™ 11 applied concept. A powerful instruction set permits you to manage logics and calculations using only the PLC programmer’s know-how, rather than requiring specialist in the more powerful VBA language. This language is now a Movicon™ 11 tradition, adopted in earlier versions.

Synapsis Language
Movicon™ 11 has developed a whole new way of programming with the Synapsis language. By using the integrated VBA engine, the synapsis language enables you to create logic block graphics which can be linked together using “connectors”. A library containing a vast variety of ready-to-use Synapsis logic blocks can be found in the template symbol library. You can also create and add your own to this library as well. By using this innovative feature you can employ a variety of symbols (e.g. Motors and valves) as an alternative to conventional function blocks.
Open Up
New Horizon

Openness based on XML technology is the Movicon™ 11 philosophy

Progea has always believed in maximum openness, a concept ingrained throughout their software technology. The courageous decision to make Movicon™ project structures go XML based technology has paid off, allowing maximum exposure to openness never before experienced. Immediate for use this technology is intentionally aimed at providing users with the best advantages. The XML metaLanguage is structured text defined by the W3C consortium international standard. All the Movicon™ 11 projects, resources and objects are simple XML files, therefore accessible by any other editor. An option to encrypt project files in an instant, at anytime, remains the prerogative of the user and has been fully provided sustaining the concept of "binary file ownership". Predisposing projects in XML surpasses the "import-export" concept, permitting access to text structures of any project item or object, whether from Movicon™ 11 or any other external editor.

This innovation represents a new “auto-programming” way of life, encouraging the user to venture into predisposing macro and script that, based on related regulations, give way to creating and generating parts of a project or even the entire project. Movicon™ is fully equipped with wizards to generate project structures automatically using VBA code. The XML technology innovation goes one step beyond extending the openness concept to freedom of choice in historical data formats, where you can now choose the one most adaptable for your purposes if the default setting is not (Ms SQL Server), such as Oracle or MySQL. Openness means freedom to decide which is the most appropriate for your needs, to reuse third party objects and components such as ActiveX, OCX or external DLL, with “Safe Mode”, or to make your RealTime database transparent to external relational DB tables using one click to connect automatically.
Runtime for Windows CE and Windows Mobile Offers Open and Powerful HMI Solutions

Movicon™ CE is a runtime engine that runs the same projects as Movicon™ 11 XML projects. Your projects can therefore be run on your HMI device, on operator terminals, PDA, Palmtop PCs, Smartphones, mobile and wireless Systems (Pocket PC and HandHeld), autonomously and independently, with or without connecting to server or client stations or without the server terminal. Your WinCE device can actually be the server or web server to other client stations. With Movicon™ CE installed on your WinCE device you can run projects created in your Movicon™ 11 platform: one project only, the same file, running on different platforms, all made possible by the project’s XML-based structure. This means innovation paves the way for greater management simplicity, significant reductions in maintenance costs and maximum information transparency.

Just the one software for flexible and scalable applications

With Movicon™ CE you can create compact and powerful HMI visualization systems. Movicon™ CE can be deployed in HMI systems with small compact touch screens, based on Windows CE 6 or 7. Movicon™ CE is the HMI software for 320x240 color Touch Panels (1/4 of VGA) but can also be scaled in grey, up to high-ranging terminals with 6”, 8” or 10” monitors and superior. Other typical Movicon™ CE applications have been deployed onboard mobile and wireless systems (d.g. PocketPC), both as supervision Client stations and ‘stand alone’ mobile applications. By using Movicon™ CE, the operator terminal becomes a small Scada station, offering hardware independence, network connectivity with superior information systems (Scada, MES managerial) and enhancing machine potentiality.
Hardware Independence
Movicon™ CE guarantees independence, maintaining the same software even when changing HMI touch panel type, and allowing you to choose the right hardware product that suits you best.

Machine Information Integration in Enterprise-Wide Networks
Movicon™ CE enables you to connect your HMI touch panel to your enterprise network to improve information flow in real-time. Movicon™ CE also supports the Ms SQL CE 3.0 technology, expanding and simplifying historical data management and integration.

Power Enhancement
Movicon™ CE includes most of the graphical features provided in the Movicon™ 11 Scada remarkably enhancing data visualization. The Movicon™ CE graphics potentiality is superior to any other HMI software. Not only are its graphics unrivaled, it will also empower you to venture beyond the simple HMI: Powerful Alarm Management, Historical log management with relational DB integrable in net, Trends, Data Analysis, Schedulers, IP Camera, Recipes in DB, VBA Scripts, dispatching e-mails and SMS and Web Client, all ready-to-use within the one powerful, simple programming environment that only Movicon™ can truly provide.

Cost Effectiveness
Deploying the all-in-one developer environment of Movicon™ CE in your enterprise as Scada supervision on PC and remote HMI operator terminals, will save you time and money spent on learning, training personnel and maintenance. Movicon™ CE enables you to visualize and control your machines using the Microsoft Windows™ CE OS to guarantee the maximum scalability possible to your software platform, all while protecting your investments. Movicon™ CE is the most powerful HMI platform available for Windows™ CE capable of satisfying every visualization and control need within a ‘compact’ environment without forfeiting the potentiality that a typical Scada provides.

Remote Control and Teleservices
Movicon™ CE guarantees access to remote workstation terminals and connected PLCs to device by remote control using modem in a transparent way making it indispensable for attaining all round maintainability at a distance. The project upload and download functions can also be managed by remote control.

Built-in Web Client
Movicon™ CE supports the Web Client functionality for allowing access to devices through the web using normal browsers to make full use of the Web Services technology. Web client technology also provides access from remote PC stations, terminals, and Smartphones mobiles.

Movicon CE Advantages
• All-in-one development and configuration environment: Movicon XML projects can run on both Win32/64 and WinCE
• Unmatched graphics and monitor resolution independence
• Multitouch
• Powerful dynamic animation features
• Rich library of graphical objects and symbols
• Powerful Alarm and Message management
• Historical Event Log archives, also in SQL Server DB, with order by filters
• Event notifications with SMS and e-mail
• Object-oriented Recipe management
• Historicals and Data Loggers in open archives, both in text and SQL Server DB format
• Integrated sequential IL Logic
• Basic Scripts with VBA syntax
• Vast library containing a variety of native drivers with support to Multidriver connections
• Built-in Networking
• OPC UA Client, OPC DA Client
• User and Password management containing 1024 levels and 16 areas. Supports FDA 21 CFR Part 11
• Remote control and Teleservices
• IP camera support
• Events and Schedulers
• Project Debug and Upload
• Web Client technology
Real-time factory information available at any time and place is indispensable for any manufacturing company to have. It is not simply a question of survival but rather of staying competitive. This competitiveness is one of Progea’s main concerns leading them to create the Movicon™ Web Client, an innovative software solution based on the most modern Thin Client Java technologies for sharing real-time data across the Internet or Intranet network architectures. The Movicon™ 11 and Movicon™ Web Client technologies will enable you to visualize and control any Movicon™ HMI or Scada supervision station using a simple browser on the client side. This will enable you to improve productivity and stay competitive while saving you significant costs in management, maintenance and ownership licensing.

Truly Web-Based Architecture
Movicon™ Web Client uses the Thin Client model whereby the application in its entirety is able to reside and be processed on the server. Centralizing information in this way will simplify and contain the costs of system management and maintenance. Graphics processed on the server side can be displayed on the client using any Internet browser by interacting and adapting the graphics to local resolution requirements. Updates are transmitted to the Client only in the event of each change. The most advanced technologies (HTML5 or Java) guarantee performances with truly innovative architecture.

Unrivaled Potentiality over the Web
Client users are fully aided with the potentiality that only the Movicon™ Web Client is capable of providing without needing to install and process any thing on the client side. Graphical screen representations are highly reliable and the graphics area automatically adapts to the client’s graphic resolutions or to the size of the browser window. The client enables user interaction and command activation and events of inserted VBA code can also be managed. All information from Historical Logs and Trends can be obtained from data table displays supporting various filters and order by functions. Furthermore, the Scheduler and IP Camera viewer objects are supported along with their interactivities. The Movicon™ Web Client potentialities are incredibly remarkable, powerful, extremely simple and automatic making the automation-over-the web concept a reality.
The Web Client solution designed by Progea does not need extra installation or configuration on the server side. Multiuserness, bidirectionality and security are all guaranteed simultaneously, without the need for complicated configuring. The Movicon™ Web client technology exploits the Windows™ Web Server (IIS) by default, connecting your entire plant through the web with just a few clicks. Furthermore, the Movicon™ applications for Windows™ CE support Web Client access to enable simple HMI stations to become web servers. Movicon™ Web Client is available from the 11.6 version with HTML5 and Web Socket technology to guarantee support to the most modern web technology with browser and operating system independency. Apps are also free and available from Stores as well as the Java applet.

The innovative advantages of Movicon™ Web Client will enable you to monitorize and optimize production processes in the most cost effective way. Whatever you happen to be manufacturing, you can visualize your factory to control and monitor the entire automated system and machines and thus beat ownership license, development and system maintenance costs. Data is centralized in distributed architectures only where needed: on the server. Clients can display and interact with the Movicon™ project to which they are connected, without needing additional licenses and development costs thus simplifying maintenance. Modifications executed on the server will immediately be updated to all clients.

Secure Architecture
Client access to your system does not require any modification or opening of firewalls and guarantees total data access security. Data between server and Web Client is encrypted when transmitted to guarantee public network security. As for command access security, the Web Client stations allow commands, predefined on the server, to be activated with the same security procedures. For instance, if a command requires password authentication on the server, it will also require the same authentication (log on) in order to be activated through the web. All accesses and commands are traced and recorded in the Server Log. Furthermore, Web Client station log-on is totally independent from the other stations, where other users can log on with different user level privileges (multi-user). The server system can also be configured to display data only, disabling any possibility for clients to activate commands. Furthermore, you can configure the graphical project objects to be made visible or invisible on the Web Client side.

Web Client features
Movicon™ Web Client offers the possibility to access factory data using Internet/Intranet architectures. The advantages you get from using Movicon™ Web Client are:

- Accessing and project visualization over the web using any browser with any operating system, thanks to HTML5 technology support, free Apps and Java applet.
- Creating Web pages on the server is completely automatic with just one click.
- Project screen navigation as provided on server, with possible restrictions due to navigating regulations on Web side.
- No need to install or configure extra components on client or server.
- Optimized performance with transparent support to the project functionalities and commands using a normal browser.
- Secure data management.
- Notification only on exception.
- Communications based on HTML5 Web or Web Service.
- Multiplatform support on Linux, Windows™.
- Server access using Apps for smartphones.
- Free Mobile Apps for iOS and Android.
- Support to Windows 32/64 bit or Windows CE on Server side.
- Complete access on Web side to historicals recorded on Server.
- Support to powerful functions such as schedulers and IP camera viewers.
Progea’s technological solutions are based on immense experience in the field involving years of constant research for perfection. Years of continual innovation have resulted in reliable and cutting edge software technology. So far over 100,000 Movicon™ SCADA/HMI platforms have been installed worldwide. The increasing number of licenses sold each year proves how popular Movicon has become worldwide. Boasting constant technology innovation, rigorous lab-testing for quality, Progea guarantees users worldwide success with their applications, including expert technical services for value added user satisfaction and productivity improvements. This is the philosophy of Progea a strongly innovation-oriented company that values quality, reliability and availability on a long term basis.

State-of-the-Art Technology
Movicon™ is often used as a reference point for its technological characteristics, which not only satisfy current demands but also those forthcoming and unexpected.

Quality
Research and development procedures, severe and thorough lab test runs, release policies, product documentation, user needs analysis, united with top-notch services and system traceability, make the quality of Movicon™ superior to any other product of its kind currently available on the market.

Deployment flexibility
Movicon™ can guarantee maximum deployment scalability and flexibility, ensuring user independence from platform size and type in currently used and hardware. The exclusive use of standard and open technology forms the basis of safeguarding investments.

Reliability
Reliability is a company and product trait we have built during 25 years operating in the international market. Constant growth and development run deep and can be seen in long term partnership with our clients. For years numerous major multinational companies have placed their trust in our technology. Large enough to guarantee long term business relationships and assistance all over the world our company is always available and flexible offering the right solutions for every need.