

L-force

VisiWinNET® visualisation systems



Open, innovative, flexible



L-force | Your future is our drive

Demands are increasing all the time. In future, key challenges will lie in the areas of cost efficiency, time-saving and quality improvements. Faster project planning and commissioning, improved performance and increased flexibility in production are expected. New ideas are therefore needed for the machines of the future.

Lenze has risen to this challenge and, with L-force, we can now not only offer you an innovative family of drive and automation products, but also a new, comprehensive portfolio of solutions.

Driven by innovation – New ideas for new possibilities

Always on the lookout: Our idea of innovation is working on even better solutions for our customers, every day.

Driven by flexibility – High degree of scalability for individual solutions

Scalability is an important aspect of the L-force philosophy. Performance, scope of functions, software, service provisions and aftersales care – Lenze will provide you with exactly the combination you require.

Driven by usability – Simple solutions, even for complex applications

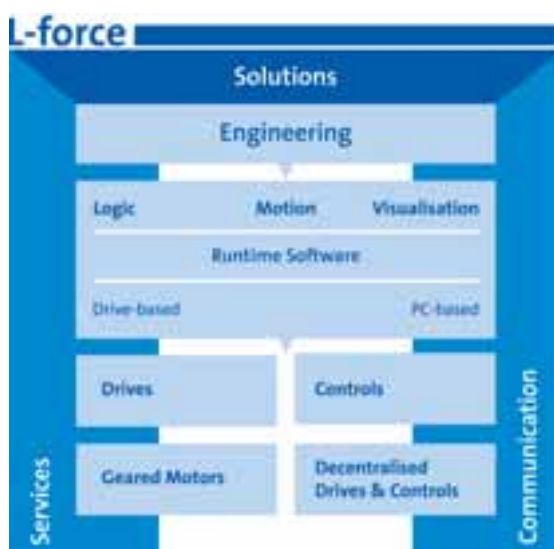
We always focus on the user. Therefore, when we developed L-force, we made sure that people with plenty of practical experience were involved, right from the start.

Driven by compatibility – Universal products and solutions

Don't waste any more time searching for suitable components and the right interfaces. With L-force, everything is compatible.

Open and intelligent – visualisation based on the .NET framework

Innovative technologies and tried-and-tested standards ensure that your visualisation offers maximum flexibility and functionality.



www.L-force.de

Visualisation | taking a sharper look

Just like the rest of the computerised world, the field of automation technology has been undergoing rapid growth for a number of years. As the complexity of machines continues to grow, object-oriented systems are now indispensable for process visualisation in many systems. The range of applications available for machine-oriented visualisation extends from those that require simple operation and rapid workflow to SCADA systems that offer their users a high degree of openness and flexibility.

A data flow with controlled output

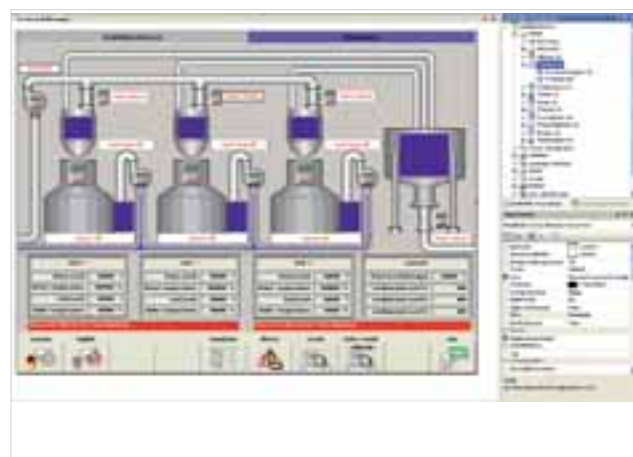
An unrestricted flow of information is one of the most important conditions for the flexible production that today's rapid changes in markets and products requires. When information is sent between PCs, HMIs, controls and drives, very different demands are made of the type of data and how much detail is provided at the individual levels. A meaningful format and clear depiction of all information therefore count amongst the most important tasks alongside pure data transfer.

Tailor-made visualisation systems

Visualisation systems handle these tasks. The range of requirements made of the workflow of these systems is just as varied as the systems themselves. Simple handling without the effort of programming is useful for machine-oriented HMI visualisation, e.g. using 'drag and drop', while only an open system environment can offer the flexibility needed in complex SCADA systems.

The limits of proprietary systems

In order to produce company-specific applications from a module, the user needs a linked combination of the approaches mentioned above, without restricting his implementation in any way. However, proprietary systems usually use internal script languages and have insufficient interfaces. They therefore rely on numerous extra external modules or components like ActiveX Controls to be able to work in a networked manner. They can therefore only satisfy some of the requirements mentioned.



VisiWinNET® | a new level of openness

VisiWinNET® is finally lifting the barriers imposed by proprietary visualisation systems. Thanks to its innovative technologies and tried-and-tested standards at operating system and program level, VisiWinNET® is a uniform integrated visualisation software platform for mechanical and systems engineering. The possibilities extend from all forms of machine-oriented HMI applications to complex SCADA systems in client/server technology, that take account of the current automation technology market and its requirements.

The basis: the .NET framework

The flexibility: limitless

The VisiWinNET® system's biggest strength lies in the way it fully integrates Microsoft® Visual Studio .NET. It ensures access to all Windows® functions, multimedia, databases and the Office environment. The object-oriented script languages C# and Visual Basic.NET are also available and can be used to adapt and change the software to your personal needs or even develop your own control elements and functions. VisiWinNET® can therefore be used to solve individual tasks which are hard to implement with ready-made visualisation functions.

The templates: can be edited

The workflow: user-focused

From its simple label field to its complex trends display, VisiWinNET® provides all the key elements for simply designing interfaces as .NET components. These templates and ready-made examples allow applications to be produced quickly and efficiently. Individual functions can also be added to the system with the object-oriented .Net system environment. The functions range from individual user-specific elements to fully automatic project generation in series mechanical engineering projects. All the elements can be used to put together any combination that can be reused as user control elements.

The communication:

scope for vertical networking

The expenditure:

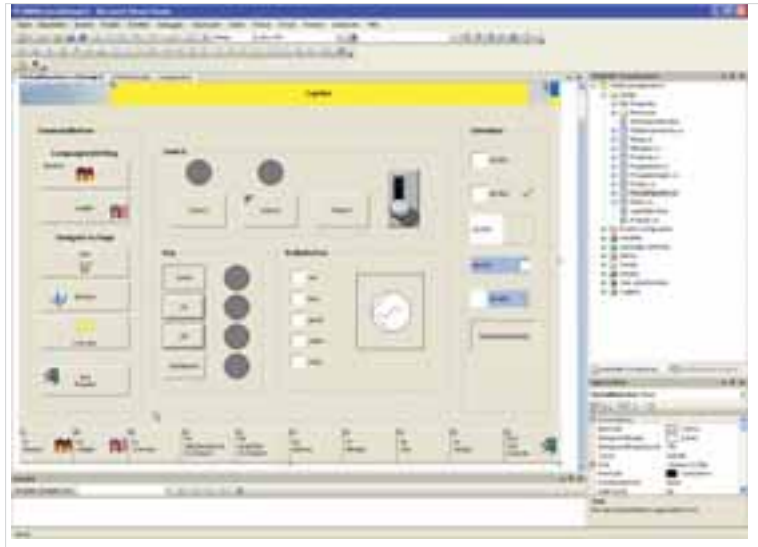
not even worth mentioning

VisiWinNET® supports single and multiple workstation applications for control panel or factory automation solutions. The runtime versions VisiWinNET® standard and C/S provide an OPC server interface for the important integration of machines into a higher-level host system (ERP) and the exchange of data between individual machine and system parts. Data relating to orders, recipes and parameters but also production and quality data can thereby be exchanged across the network. Operating costs are greatly cut by the connection to the Lenze system bus CAN and the possibility of transferring codes directly when producing applications.

The equipment: exemplary

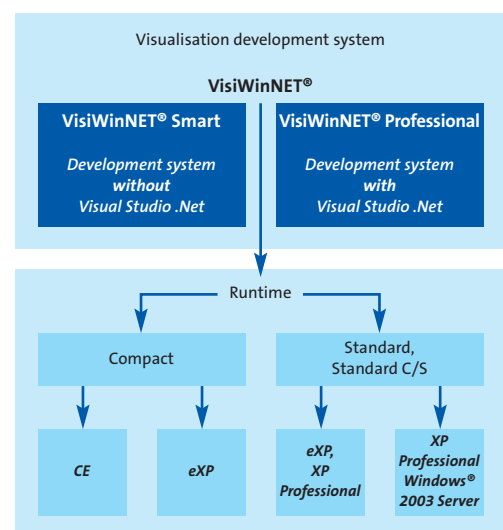
The normalisation: complete

VisiWinNET® features an attractive technology, that will not restrict you in any way. The convenient online function for changing the language and units uses Unicode, thereby offering all languages and fonts. An alarm module, recipe processing, the archive module for storing trends, a convenient user management system and a log editor round off what the visualisation software is capable of. All the modules of the standard runtime described are set up such that the system can be used for applications in the foodstuff and pharmaceutical industry and satisfies FDA 21 CFR Part 11.



Trusted ground for project planners: the graphic integrated development environment based on ready-made components and templates favours quick progress.

The system comprises the developer software for producing the applications and a runtime component that is operating system dependent for installation on the target hardware.



Smart & Professional | a strong team

In order to cover various individual tasks as best as possible, VisiWinNET® is available in two independent versions.

VisiWinNET® Smart, for operating and monitoring applications with a simple to average functional range, and VisiWinNET® Professional, that provides the functionality needed for more complex visualisation applications with exacting standards. When combined, the two versions are a powerful visualisation module for project applications.

VisiWinNET® Smart:

full power and full compatibility

VisiWinNET® Smart is an easy-to-use visualisation system for the simple production of interfaces. It is a good version for project planners who are just starting out and have little or no experience of visualisation and SCADA systems. It will serve them as a flexible tool for the production of simple applications or as a service tool. With the one exception of undertaking your own program adaptations, this system offers all the functions of the Professional system. VisiWinNET® Smart for example has its own development environment, offering all graphics functions, and assists the user by providing ready-made templates. The particular strength of the system lies in the way that it can be combined with VisiWinNET® Professional.

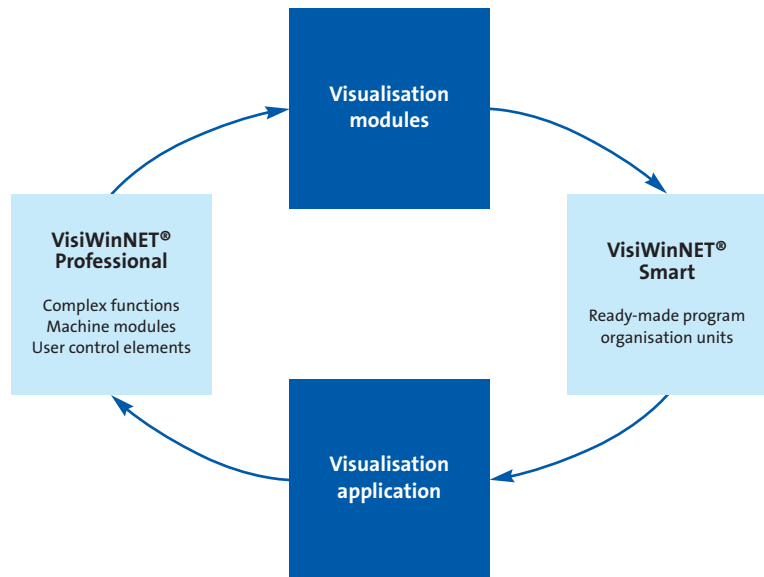


**VisiWinNET® Professional:
can be extended infinitely**

The VisiWinNET® Professional system is fully integrated in the Microsoft® Visual Studio .Net integrated development environment and provides experienced developers with the basis to create visualisation and SCADA applications with high levels of functionality. Ready-made templates and modules are used to fluidly create applications by 'drag and drop', which greatly cuts the development time and also ensures that the operating interface has a uniform appearance. If necessary, the system enables individual programming changes based on Visual Basic .Net and C#. Company-specific and complex tasks which standard visualisation functions can't handle are thereby solved.

**The VisiWinNET® module:
a systematic form of visualisation**

When combined, the rapid usability of VisiWinNET® Smart and the openness of the more complex VisiWinNET® Professional deliver a high level of efficiency during reciprocal processing. VisiWinNET® Professional can be used to create specific machine modules and programmed functions as user control elements which can be opened in VisiWinNET® Smart. Here the application is simply adapted without the need for specially trained staff. The resulting system combines the benefits of both versions and is equally suited to the complex production of applications and simple amendments by service staff.



Machine modules and control elements can be merged to form individual visualisation applications. With the exception of script editing, the application can be processed reciprocally in both systems.

Interface design | limitless opportunities

A. Monforts Textilmaschinen GmbH & Co. KG, based in Mönchengladbach, produces textile machines and is a leading international supplier of systems for the finishing and coating of woven and knitted goods. Only the best is good enough for the company's process visualisation. In order for its machines to be operated faster and more safely anywhere in the world, the company worked with design agency i/i/d from Bremen to develop a special interface design based on the visualisation module, the intelligent combination of VisiWinNET® Smart and Professional.

Intuitive control and navigation

The basic structure of the newly created visualisation application is a simplified graphic display of the entire system. The main navigation tool, a virtual magnifying glass, can be used to zoom in on individual sections of the machine and call up and/or control detailed information. This enables the person controlling the system to intuitively switch between the overall view for monitoring purposes and the detailed view for action in particular areas.

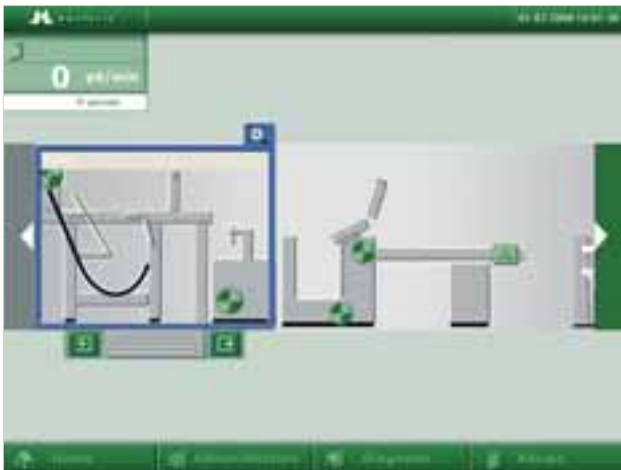
Interface with global validity

The aim was to replace the many different control terminals that had previously been used extensively with one standard, internationally valid and easy-to-use solution. To achieve this, the visualisation uses virtually no text but instead clear and easily understandable symbols, so the user quickly finds his way around. In visual terms, the application is a departure from the standard Windows look and uses the opportunities offered by the vector graphics used with VisiWinNET®.

Award-winning HMI design

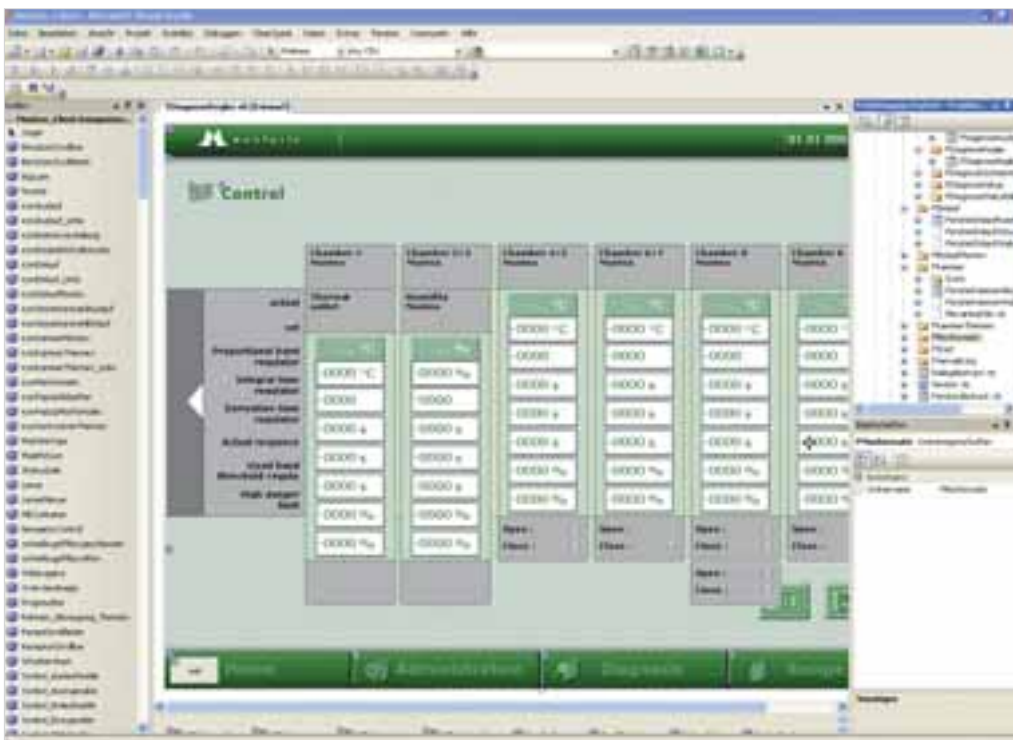
The concept and the way in which the intelligent interface design has been implemented is setting new standards in visualisation software and was therefore commended in 2006 in the form of the renowned iF communication design award.





Award-winning design with elegant vector graphics. The virtual magnifying glass, shown as a blue frame, can be moved sideways over the two-dimensional rough illustration of the system.

The magnifying glass in zoom mode. Individual sections of the machine are scaled to screen size and displayed with detailed information.



Rapid production of applications in the VisiWinNET® integrated development environment. User control elements are managed in libraries and can be easily added to the application using 'drag and drop'.

Data and facts | An overview of VisiWinNET®

As a supplier of complete systems for the drive and automation technology sector, we of course place a lot of importance on the usability of your systems. VisiWinNET® is therefore an innovative visualisation system that satisfies the high quality standard you have come to expect from all Lenze products.

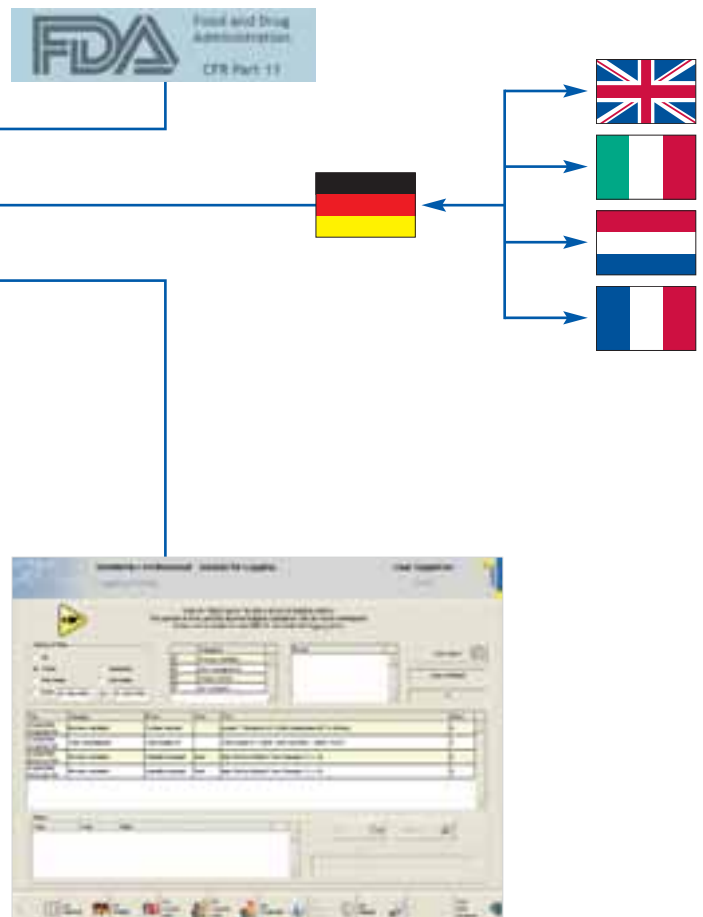
The coupling of VisiWinNET® to a Lenze system also guarantees direct acceptance of process variables – and is therefore particularly convenient. Take a quick look at all the other benefits outlined in the overview.

Features

- ▶ World-wide validation thanks to integrated FDA CFR Part 11 conformity
- ▶ Unicode-based language and unit changeover feature for all the world's languages
- ▶ Extensive diagnostics options thanks to trend recording and tracking of process values
- ▶ Countless visualisation functions: reporting system, archiving, user management, recipe system, logging, and much more

Structure

- ▶ Great compatibility through the use of standard operating systems
- ▶ Scalability in terms of operating system and efficiency
- ▶ Satisfaction of virtually all requirements through integration in the .NET framework



Communication

- ▶ Communication across processes and scope for remote maintenance by using open protocol standards
- ▶ Continuous communication from the fieldbus to the control panel and applications planning
- ▶ Implementation of extra tasks, like incorporation of webcams or connection to databases

Workflow

- ▶ Can be used for applications ranging from a simple system to produce B&B applications on HMIs to complex SCADA systems
- ▶ Can be easily and flexibly extended using standard programming languages
- ▶ Ready-made templates and control elements which can be adapted at any time
- ▶ Production of specific elements by the user, all elements can be reused
- ▶ Combined application range of both development systems

Which VisiWinNET® version satisfies your requirements?

VisiWinNET® Smart

- ▶ A version for beginners
- ▶ For simple B&B applications
- ▶ For applications in the machine-oriented area
- ▶ For single workstation systems

VisiWinNET® Professional

- ▶ A high-end developer version
- ▶ For complex B&B applications
- ▶ For client/server-based SCADA systems
- ▶ For individual and company-specific programming
- ▶ For linking to databases
- ▶ For evaluating historical data
- ▶ For using report functions



It's good to know | why we are there for you



"Our customers come first. Customer satisfaction is what motivates us. By thinking in terms of how we can add value for our customers we can increase productivity through reliability."



"The world is our marketplace. We develop and manufacture internationally. Wherever you are in the world, we are nearby."



"We will provide you with exactly what you need – perfectly co-ordinated products and solutions with the right functions for your machines and installations. That is what we mean by 'quality'."



"Take advantage of our wealth of expertise. For 60 years now we have been gathering experience in various fields and implementing it consistently and rigorously in our products, motion functions and preprepared solutions for industry."



"We identify with your targets and strive towards a long-term partnership which benefits both sides. Our competent support and consultation process means that we can provide you with tailor-made solutions. We are there for you and can offer assistance in all of the key processes."

You can rely on our service. Expert advice is available 24 hours a day, 365 days a year, in more than 30 countries via our international helpline: 008000 24 Hours (008000 2446877).

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