

Synergy of Things



iVision^{max}[®]
Industrial Software Platform

Larsen & Toubro is an Indian multinational engaged in technology, engineering, construction, manufacturing and financial services. It operates in over 30 countries. A strong, customer-focused approach and the constant quest for top-class quality have enabled L&T to attain and sustain leadership in its major lines of business for over seven decades.

L&T's Control & Automation business offers integrated electrical and automation solutions to diverse industry segments, such as oil & gas, water, utility, minerals & metals, power, solar energy, manufacturing, food and beverage, automobiles, chemicals, pharmaceuticals and infrastructure. The business has enhanced the effectiveness of a wide client base with a complete range of customised electrical and automation solutions – encompassing instrumentation, electricals, drives, inverters, automation, SCADA, telecom and engineered IT solutions.

The business has a vast installed base in India. Its distinctly superior and proven solutions stem from its expertise in automation, electrical and instrumentation acquired over the years, as well as its domain knowledge.

iVisionmax – Industrial Software Platform for Sustainable Infrastructure

All businesses – from critical to recreational – constantly invest in automation technologies to improve operational efficiency, while reducing cost and maintaining production levels.

Automation Systems enhance quality, operational efficiency and accuracy, and help build sustainable businesses.

The SCADA system plays vital role in collecting and controlling process data within the plant and across geographically-dispersed field operations. This enhances operational efficiency and effectiveness. SCADA enables real-time control and access to operational information, enabling operators to communicate, collaborate and take informed decisions.



Maximise Efficiency with iVisionmax

To enhance the effectiveness of a wide range of industries, including yours, L&T's Control & Automation business presents a SCADA solution – iVisionmax.

iVisionmax improves your productivity, product quality and enterprise integration – while reducing operating costs – through reliable control and monitoring, thus securing your plant's assets.

Built on an open architecture using common standards, iVisionmax allows you to build new applications and an information foundation to access operational and historical data securely – anytime, anywhere.

iVisionmax is designed to meet the ever-changing control and monitoring needs of modern operations, including process control, asset health, resource management, quality, regulatory compliance, safety, security, and more. It enables you to optimise your business on an enterprise-wide scale by delivering the information foundation you need.





Open and Scalable

No matter how large or how small your application, iVisionmax provides a robust, scalable, industry-neutral foundation for your enterprise. It supports single-user systems or multi user systems, as well as widely distributed systems that can be fully-customised to meet your specific needs.

iVisionmax can be configured for tags ranging from hundreds to thousands, single-users to distributed multi-user systems and even sub-second speeds.

iVisionmax supports open standard protocols, which are widely accepted in the industry. It allows you to connect to different control systems, such as PLCs, RTUs and micro-controllers. It facilitates efficient communication, data collection and robust data storage by enabling you to collect high-frequency data from multiple formats/standards

and systems/sources. The system prevents data loss and improves operational efficiencies.

The system is built on a reliable, high performance, relational database that enhances data retrieval, data integrity and the speed of data updates.

For third-party application integration, iVisionmax supports standard OPC, giving you access to all the online values – and even enables you to read data from other applications.

Flexible and Easy

From rich graphics to spreadsheets, iVisionmax provides different options needed to deliver data to all your users. Its client tools provide highly configurable visualisation and easy-to-use tools that provide agile, self-service data access to users, empowering them to make data-driven decisions based on real-time and historical information. You get secure access to critical information – anywhere, anytime.

iVisionmax empowers your users to create graphical displays and enrich them with layers of real-time data. With iVisionmax, you can create interactive displays that show plant overview dashboards, process-flow through operational areas, detailed schematics for key equipment and more.

The reporting tool is based on standard Excel that allows your operator to generate daily reports and work in a familiar environment.

iVisionmax offers flexibility to everyone in your organisation to easily design, deploy, change and personalise graphic screens and reports. You can add new functionality quickly as the needs of the business change over time.

Flexible, yet powerful, the iVisionmax tool is designed with the end-user in mind – so even those with limited technical skills find it easy to use. An intuitive user interface significantly reduces the learning curve.

The alarm tool enables you to monitor significant events, compare and perform root cause analysis to optimise processes in real time.



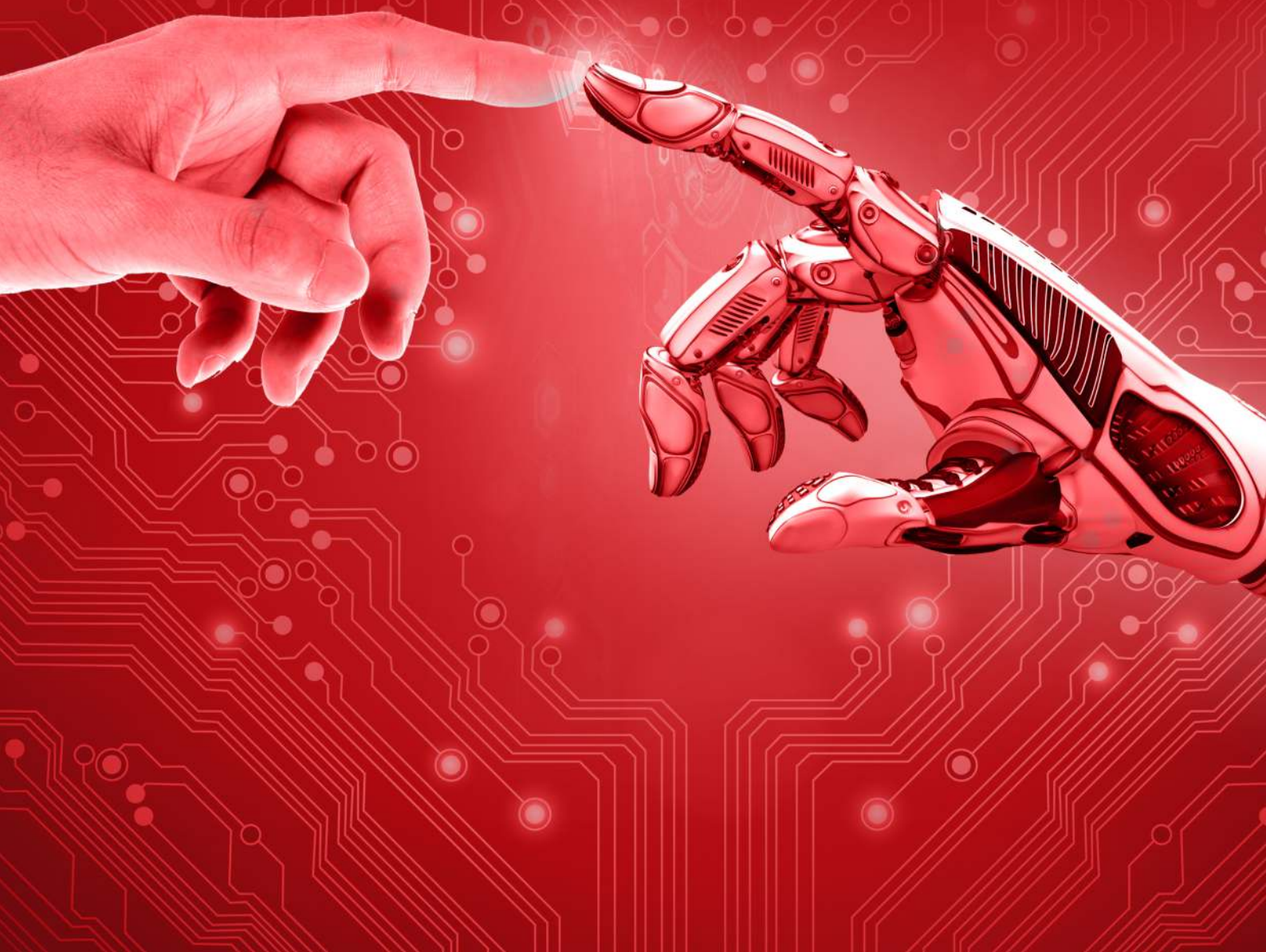
Efficient and Reliable

From design to deployment, iVisionmax includes various engineering tools that empower you to build your application quickly, thus minimizing deployment costs. It addresses a range of requirements including communication configuration, tag-creation, database management, scripting and archive management.

iVisionmax delivers advanced engineering tools, effective graphic design, more efficient trouble-shooting, and ease of application maintenance. All of this helps minimise development time and efforts.

You can create new assets or objects using object-oriented development, which enables reusability and greatly simplifies system maintenance and configuration.

To ensure data consistency and availability, it is designed for high availability. It prevents data loss and improves operational efficiencies. It also supports distributed client-server architecture to meet the requirements of large and complex systems.



Key Features

- Integrated development environment for application development
- Quick and easy development – based on object-oriented design principle for data modeling and graphical object development
- Supports English scripting, enabling developers to use familiar technologies and applications
- Supports open and standard industrial protocols
- Built on strong, robust and secure relational database
- Meets requirement of high availability architecture
- Excel-based user-configurable reporting tool with in-built templates
- Supports visual comparison of data using trends/bar charts
- Role-based secured access for users of different levels
- Compatible with the latest Microsoft operating systems
- Licensing model suitable for enterprises of all sizes
- Includes vector graphics for various industries, such as hydrocarbon, water and power
- Trusted support from L&T and its partners



Business Benefits

- Seamless operation and enhanced decision making
- Increased productivity
- Reduced operational cost due to reduction of risk of downtime and exposure
- Quicker response to down time and maintenance needs
- Accurate data for making informed decisions
- Real time KPI and Dashboards for benchmarking

Operational Benefits

- Real-time monitoring of assets' health
- Planned maintenance based on asset conditions
- Increased efficiency
- Assists in root-cause analysis
- Lowers the cost of operation and maximizes asset utilization
- Early notifications - Monitors anomalies and notifies users

Plant Benchmarking

- Set baseline for plant benchmarking
- Helps to standardize best practices
- Identifies areas for optimizations



LARSEN & TOUBRO

Larsen & Toubro Limited, Control & Automation

Electrical & Automation Campus, A-600, TTC Industrial Area, Shill-Mahape Road
Navi Mumbai - 400 710, INDIA
Tel: +91 22 6722 6200
Fax: +91 22 2778 3032

Support: ivm.support@lntebg.com
Sales: Cna-marcomm@lntebg.com

CIN : L99999MH1946PLC004768

iVision^{max}® is registered trademark of Larsen & Toubro Limited, INDIA.