Gefran Software Solution

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GF PROJECT

GEFRAN

Our Know how,
Your Solution.

Integrated Development Environment (IDE)

GF_Project is an integrated development environment (IDE) for real-time applications that control Gefran devices in the GF_Vedo (HMI), Digistar II (IPC), Gilogik II (I/O), Drives and Sensors families.

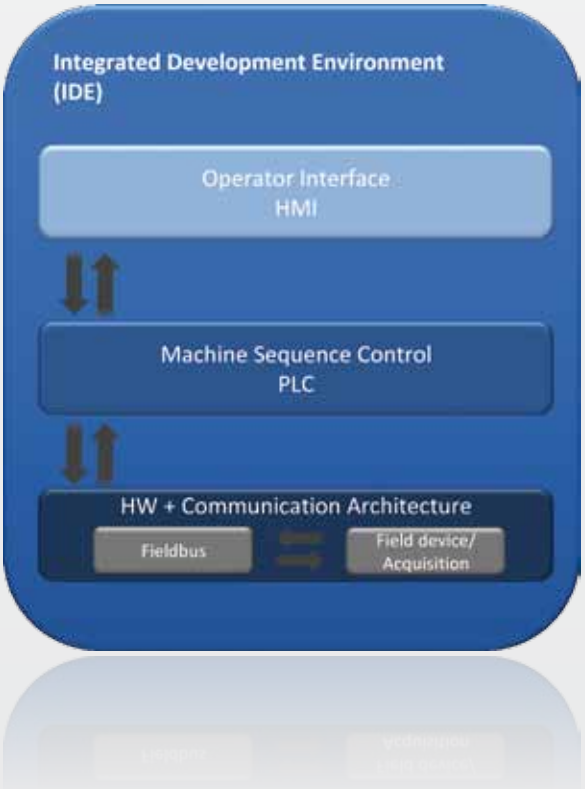
GF_Project coordinates and provides tools to configure all of the modules involved in configuration of an Automation project.

The principal modules are:

Operator interface
Module dedicated to configuration of graphics pages of HMI with advanced graphics

Machine control sequence (PLC)
Module dedicated to configuration of the machine control part for real time solutions

HW + Communication architecture
Module dedicated to definition of the machine/system HW structure, for configuration of individual devices and of the communication type used



GF_PROJECT IS THE IDEAL INSTRUMENT FOR:

- Developing real time automation solutions
- Creating applications that completely control machines and systems
- Developing multiplatform solutions

The **User Frendly** configuration style reduces learning time and development time. Plus, the ability to easily re-use parts of existing projects increases the effectiveness of the developed automation project.

GF PROJECT

Applications

System monitoring
Multizone temperature control
Extrusion
Dosers
Thermal treatment ovens
System automation
HMI

With 40 years of experience in developing extremely powerful software for industry, Gefran guarantees that GF_Project is an efficient, high-quality product.

Common structure for HMI and PLC configuration

A standard structure for configuring both components (HMI and PLC) of GF_Project ensures uniform configuration of the automation project and easy access to configuration resources.

Standard language

GF_Project uses standard programming languages (IEC61131-3) for immediate use and conformity to common programming methods.

Powerful

GF_Project is based on a guided configuration of advanced graphic components and library logics.
GF_Project is an important advance in simplifying automation design operations, to the user's great advantage.

Application templates

In addition to saving time thanks to versatile software, GF_Project provides a series of Application Templates that can be used as a development basis for various types of systems.
Using these templates facilitates and accelerates project configuration by helping the programmer develop common parts. As a result, the programmer can concentrate on developing specific parts required for individual projects.

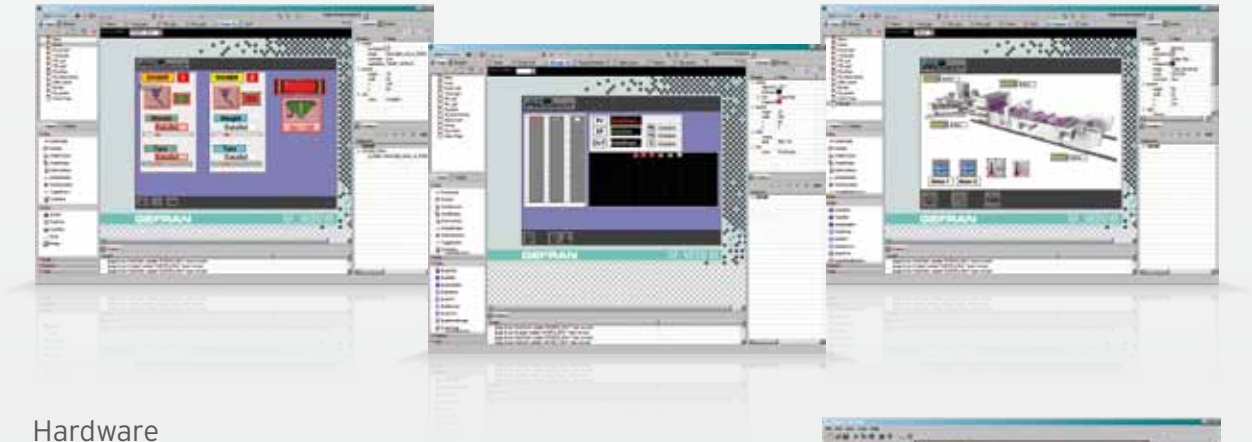
Compatibility

GF_Project can be installed on all Gefran devices (operator panels, IPC, and PLC).
The software structure of its application programmes allows easy and safe adaptation to various hardware platforms on the market.

MAIN MODULES

Operator Interface (HMI)

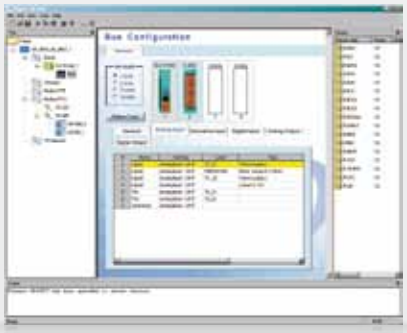
GF_Project integrates the function of Operator Interface (HMI) configuration. Application pages are configured by means of graphic objects to guide the developer and make his/her work easy and intuitive.
Common functions in the various editors help simplify the configuration phases.
A library of advanced graphic components with specific functions is provided to assist development of the automation project.



Hardware

An easy and intuitive graphic interface lets you configure individual devices and automation networks.
The automation network is built and connected with graphic components arranged by function and grouped in catalogues.
In addition, you can:

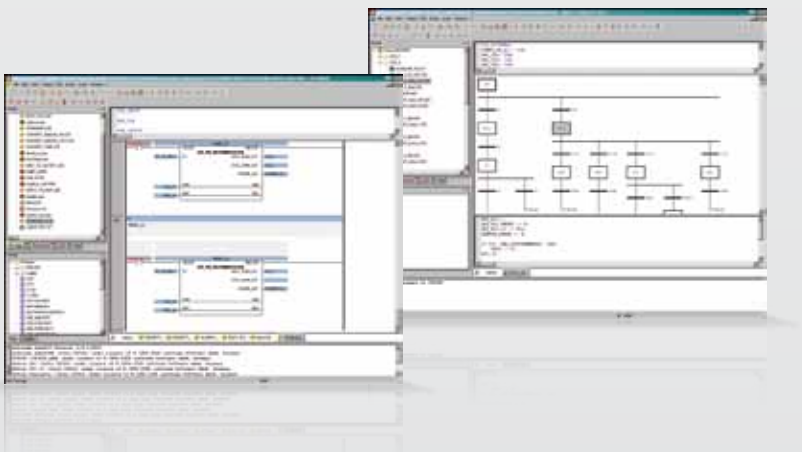
- **Integrate third-party CANopen devices by importing the EDS file**
- **Integrate third-party devices with Modbus TCP and Modbus RTU protocol**
- **Configure data sharing with higher level systems (Supervision) by exploiting the Modbus TCP/RTU connection**

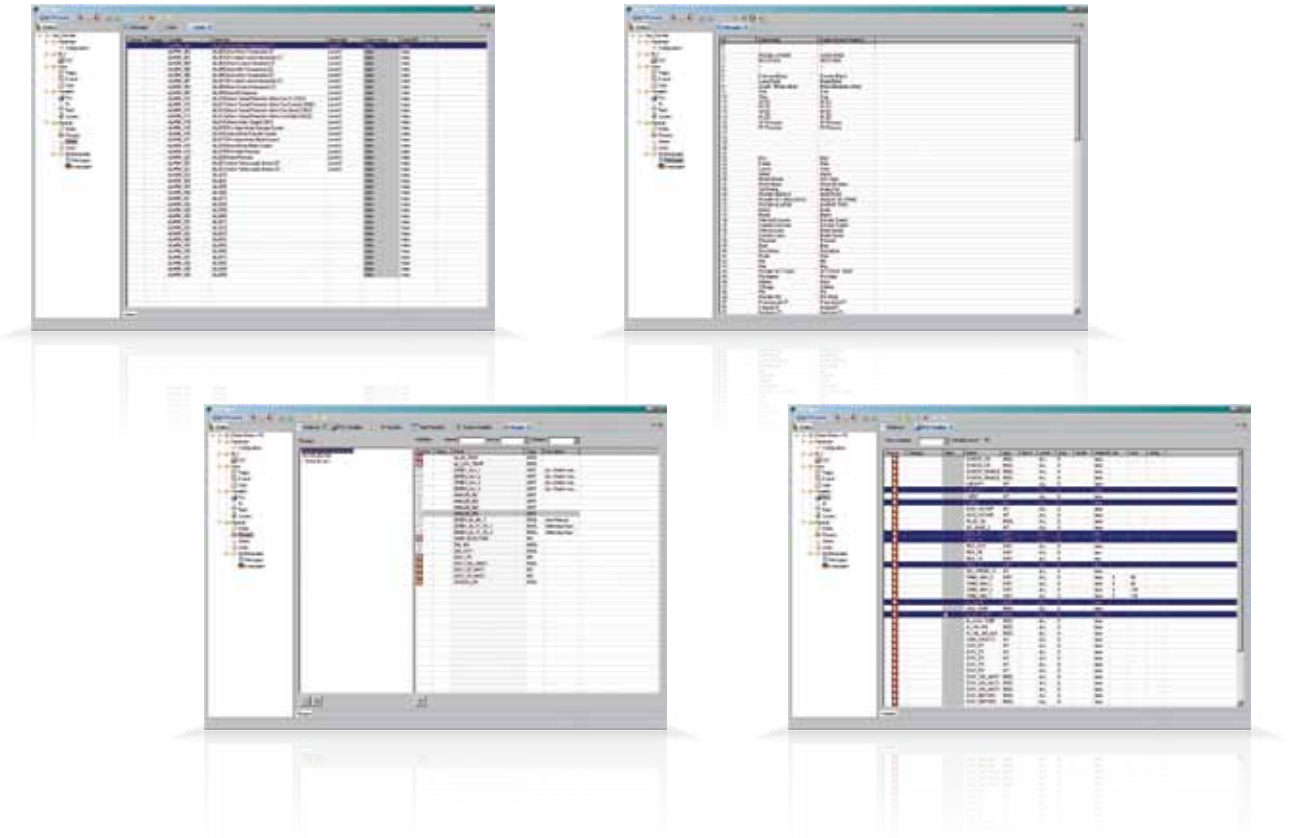


Control logic (PLC)

The PLC control logic is based on standard programming language IEC61131-3.
An extremely intuitive programming interface offers rapid learning of configuration methods and consequent reduction of software development time.
When writing the control programme, the programmer can use one of the five languages to divide the logic into individual programmes and, for each programme, use one of the five available languages

- Ladder Diagram (LD)
- Function Block Diagram (FBD)
- Sequencial Function Chart (SFC)
- Structured Text (ST)
- Instruction List (IL)





Variables management

Project variables are managed by means of a series of panels divided by type: PLC, I/O, Fieldbus and System.
These variables can be characterised by data type, description, retentive data, recipe, etc.

Alarms

The Alarms module configures the project variables to manage alarm states for the machine/system.
Active and historical alarms can be displayed by means of a series graphic components of dedicated libraries.

Multi-language

The user interface can be adapted to needs of operators in different countries.
Unicode standard allows configuration of languages with special characters (such as Chinese, Russian, Korean).

User/Password Configuration

Users can access the systems ten different levels by means of a password/user control.
An unlimited number of users can be associated with each level.

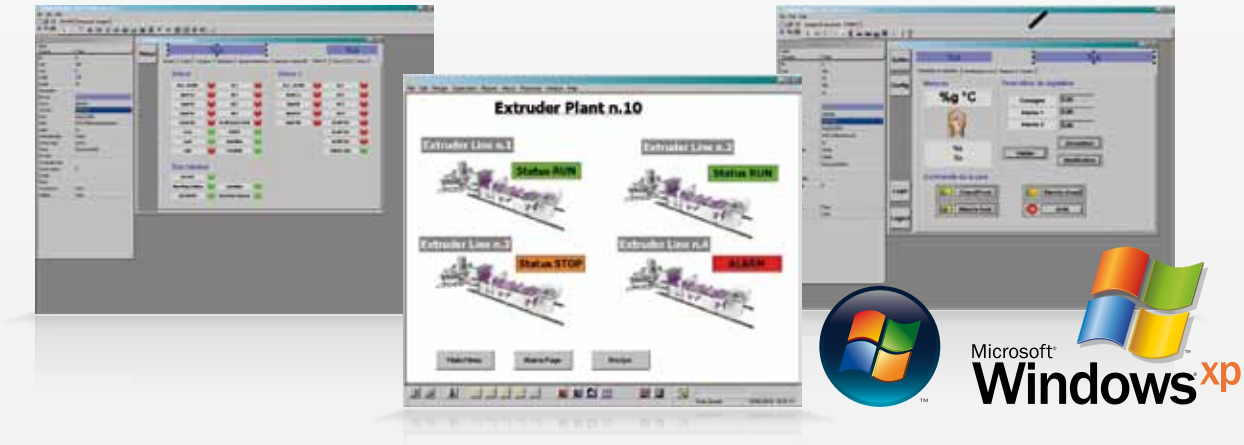
Data Logging

By means of an easy and intuitive interface, the data logging module allows configuration of data archiving characteristics with date/time information. Data recorded and saved to file are available for display in trend format, for report generation, or for export in CSV file format.

Recipe

Recipe is defined as management of a data archive containing the set-up of variables for various processes.
An intuitive configuration module and dedicated graphic components make this function easy to use.

VEDOWIN



Extremely easy and intuitive, Vedowin is the configuration environment for SCADA/HMI solutions for supervision and management of data from different systems or factory departments. In addition to connection to work stations with Gefran architecture, there are a series of drivers (communication protocols) for the principal devices and instruments used in industrial automation networks.

Functions

The application management module configures the communication protocols with field devices, user groups for access to variables or pages.
Connection or data sharing among stations or company levels is available thanks to Client/Server architectures.

The graphics part is based on library graphic components. Their configuration allows the building of application pages to display on-line and historical graphs, BMP or WMF images, analogue indicators, sliders, histograms, buttons, switches, etc.
A Symbol Factory library of 1500 images is also available.

A powerful Report management module is available by means of an intuitive configuration tool.
The module can be used to generate printouts or files in TXT, .RTF, or . CSV format, which are easy to customize.

The historical data archive lets you check production values, guaranteeing acquisition and saving of configured data over time.
Saved values can easily be displayed on the operator page, or files can be generated for analysis.

Users can access the system from 15 different levels.
With the user/password control, you can limit access to parts of the application or limit the change of process parameters.

The module provided for dynamic multi-language translation of texts lets you adapt the user interface to the needs of operators in different countries.
Texts can be exported in CSV files to facilitate translation into active product languages.

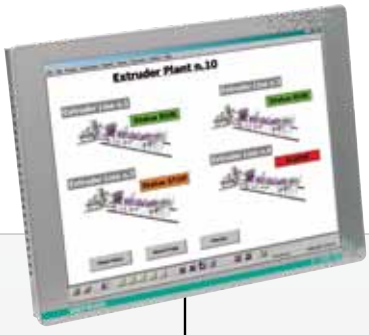
SERVICE

Gefran offers its customers more than 40 years of experience and know-how in industrial process control, helping them choose the ideal solution to develop their applications.

A full range of courses and training sessions, plus an expert technical staff, teach the basic elements of our hardware and software products to make Gefran instruments even more accessible.

Our team of Field Application Engineers works alongside the customer during software development and machine commissioning.

Gefran's 14 sales branches and global distribution network ensure efficient presence and support.



VEDOWIN

Plant
Supervision Layer

Production Layer

Modbus RTU/TCP

Hot Runner | Doser #2 | Dryer

Extruder #1

GF PROJECT

CANopen




OTHER DEVICES

Doser

GF PROJECT

Modbus TCP



OTHER DEVICES

Doser

GF PROJECT

Modbus RTU



OTHER DEVICES

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