

Viper.NET



Viper.NET is a modular software-platform to connect machine vision with automation technologies and thus simplify the integration in your automated machines.

> Configure instead of programming <

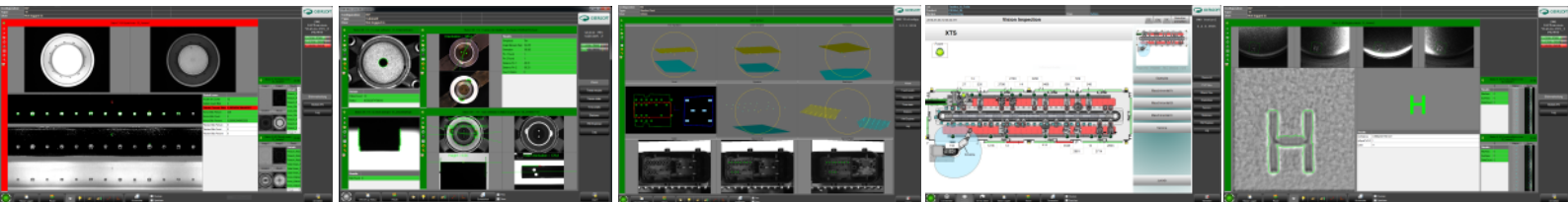
The integration of robotics, laser processing, machine vision, motion control and part tracking in an automated equipment has never been easier.

Quick

The integration of a machine vision application into an automated system or machine is dramatically simplified and accelerated by Viper.NET.

The modular toolkit that comes with Viper.NET gets your machine vision application embedded and running within minutes on your target machine.

The long-time experience with over 1000 field installations gives you the benefit of additional useful features, like a simplified vision application testing that runs on a set of reference images.



Flexible

In factory automation, projects can be different from one installation to the next. The modular architecture of Viper.NET allows to easily adapt to your needs. Customized requirements are met with additional plugins that extend the feature set (e.g. specific MES interface).

The Viper.NET package also includes a graphical user interface that can be configured and adapted to your individual needs.

Powerful

- Cognex VisionPro machine vision & GEFASOFT VisionPro Tools
- Halcon Wrapper Tool to integrate Halcon routines
- Wide support of common automation technology, like:
 - Interfaces: Profibus, TCP, SPS S7, Waycom (Prodel), Modbus TCP Server/Client, TwinCAT.Ads (Beckhoff)
 - Laser systems (z.B. Trumpf, Raylase, ...)
 - Drives (Nanotec, Servida / Moog Animatics, Jenny Science, ...)



Viper.NET Configurations

	Description	Basic	Vision
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Shell	Viper.NET platform	✓	✓
SaveVersion	Archive and restore	✓	✓
GInOut	System interfaces	✓	✓
WatchDir	Monitor and manage image directories	✓	✓
Lumos	Interface to illumination controller	—	✓
VisionPro Tools	GEFASOFT VisionPro tool set extension (except Halcon Tools)	—	✓
Vision Plugin	Machine vision framework for 2D and 3D (Cognex based)	—	✓
Optionen			
Halcon 2D Tools	Tool set to integrate Halcon in Viper.NET (Halcon Plugin, Halcon 2D image sources and displays)	—	optional
Halcon 3D	Extended Halcon integration with 3D image sources and displays	—	optional
ProcessPositions	Plugin for direct stage control with Viper.NET	—	optional

✓ = included; — = not available

* a offline version for application development is a available on request

GEFASOFT VisionPro Tools

Around 30 different tools are available to be used in VisionPro (or Cognex QuickBuild).

Some examples:

- ToolblockReferenceTool Loads a tool block from an external VPP
→ use one VPP from different jobs / types
- ToolblockSelectorTool Contains multiple tool blocks with identical Input/Output signature.
Special Inputs (Selector) define the one to be executed.
- ResultCsvTool Creates CSV result files.
- CalculatorTool Calculations without scripting.
- ObjectMemoryTool Manages a result buffer that is valid for the current type.
Results from one job can be re-used in a different job.
- HalconWrapperTool Integrates any HALCON procedure.
Automatic type conversion for supported data types.
- AdvancedPrintInspectTool Runs a comparison between trained and actual image and
quantifies the differences.
- LocationMatcherTool Compares a list of actual positions to preset positions.
- MaskEditorTool The mask editor is accessible as a separate tool.

System requirements:

- Intel® Core 2 or AMD Athlon 64 processor, 2 GHz or faster
- Microsoft Windows 7 with Service Pack 1 or Windows 10
- 4 GB RAM

Compatibility:

- Cognex Vision Pro 7.2 or 9.0
- Halcon V12.0.2 or later



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