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

<table>
<thead>
<tr>
<th>Description</th>
<th>Basic</th>
<th>Vision</th>
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<tbody>
<tr>
<td>Shell</td>
<td></td>
<td>✓</td>
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<tr>
<td>SaveVersion</td>
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<tr>
<td>GInOut</td>
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<td>WatchDir</td>
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<td>Lumos</td>
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<td>✓</td>
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<tr>
<td>VisionPro Tools</td>
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<tr>
<td>Vision Plugin</td>
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#### Optionen

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<thead>
<tr>
<th>Description</th>
<th>Basic</th>
<th>Vision</th>
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<tbody>
<tr>
<td>Halcon 2D Tools</td>
<td>—</td>
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<tr>
<td>Halcon 3D</td>
<td>—</td>
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<tr>
<td>ProcessPositions</td>
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<td>optional</td>
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✓ = included; — = not available

* A offline version for application development is available on request

### GEFA SOFT 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