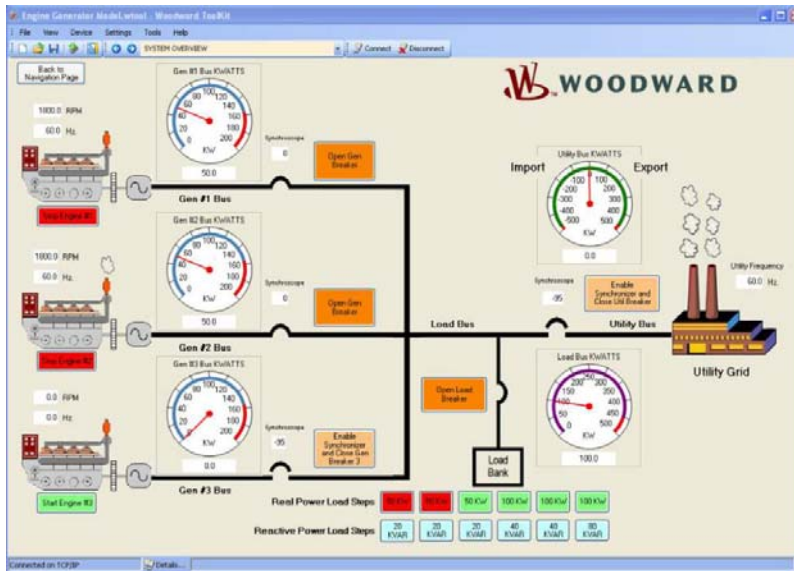


# ToolKit

## Custom HMI Software from Woodward



### Applications

ToolKit-based HMIs (human machine interface) can be used as software service tool programs, software operator control panel programs, or software engineering workstation programs. ToolKit HMIs interface with many Woodward electronic controls, including programmable (GAPT<sup>™</sup> / MotoHawk) and non-programmable controls, via RS-232/-422/-485 serial, CAN, or Ethernet TCP/IP communications. ToolKit HMIs interface with Woodward MotoHawk-enabled electronic controls developed in 2013 or later.

Special functions include:

- Configuration file (tunable) upload & download routines
- Full system re-initialization via the "I/O Lock routine"
- One millisecond event time tag viewing & logging
- Text-string based event viewing & logging
- Real-time clock adjustment
- On-line & Off-line CPU fault diagnostics

Once an HMI or Interface tool is created, it can be easily saved, protected, and distributed to users as required. Once created, a service tool can be used on any PC with Woodward ToolKit installed, subject to security restrictions. Only tool developers with Woodward's ToolKit Developer license can view, operate, and program/modify service tool programs.

### Description

ToolKit is a Windows-based software program used to create standard or custom HMI (Human Machine Interface) software programs for use with Woodward products. The created HMI programs can be used as graphical engineering workstations, configuration tools, or operator control panels for users to directly interface with Woodward products. This program is ideal for Woodward electrical product users that need cost-effective and easy-to-use software interface tools or OCPs (operator control panels).

- Designed for Woodward Products
- Create custom/standard service tools
- Create custom/standard HMIs
- Real-time display
- Monitor and change parameter values in real time
- Easily configure Woodward products
- Real-Time Trending
- Runs on Windows<sup>®</sup> XP, Vista, 7, or 8 operating systems

ToolKit is designed specifically to interface with programmed products via RS-232/-422/-485 serial, CAN, or Ethernet TCP/IP communications. This program allows application engineers to quickly and easily create project-specific graphical user interfaces, or standardized HMIs as needed.

ToolKit is designed to allow users with a Developer license to create and modify ToolKit application programs. The ToolKit program can be downloaded from Woodward's website (Woodward Software Products page). A ToolKit Developer license (purchased from Woodward) allows the authorization of ToolKit developer functions, and changes the ToolKit

## Basic Components

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Components available for use are:

- **Analog Input/Output Parameter Monitoring:** radial gauges, bar gauges, trend tools.
- **Parameter Adjustment:** momentary buttons, toggle buttons, direct setting entry tool.
- **Discrete Input/Output Parameter Monitoring**
- **Configuration Management:** File management routines allow users to up-load or down load controller configuration files, as well as compare differences between files.
- **Parameter Trending:** Real-time and historical trending tools allow users to monitor signals and events on a time basis, during the time of event or at a later time.
- **Communications:** During development, parameters can be easily selected via a parameter tree-view list that lists all available parameter tag names, allowing users to quickly create a gauge or

## Basic Functions

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ToolKit supports these primary functions:

- **Parameter Monitoring:** Via selectable graphical gauges and display component.
- **Parameter Adjustment:** Via selectable momentary or toggle buttons or direct entry gauges.

## Functions

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ToolKit supports these primary functions:

- **Monitoring and Changing Device Parameter Values:** A ToolKit developed tool may contain one or more pages of parameter for various troubleshooting or tuning procedures.
- **Settings Management:** ToolKit can load or save all the settings to and from the control. This feature allows a user (such as a fleet owner, distributor, or packager) to save all the setting from one control and load the same settings onto another similar control. Saved settings files can be modified offline and compared for differences.
- **Trending:** ToolKit provides a trending tool that graphically plots data to the HMI screen. A trend

program from a simple browser tool to a development program.

Once an application program is created by a user on a ToolKit "authorized" computer, it can be installed on any Windows-based computer, and viewed/operated via the ToolKit program.

ToolKit Development license users have no limitation to the number or type of application programs they can create or modify. Additionally, ToolKit Development license users can, at no additional cost, download the latest versions of ToolKit, to ensure they are using the latest program, with the latest program features.

graphical display of any parameter.

- **Graphics Component Selection:** Depending on the type of parameter dropped onto the page, ToolKit will automatically display the compatible types of graphical components (i.e. radial gauge, bar gauge, etc.) allowing for quick and easy tool creation.
- **Dynamic Content:** ToolKit provides the ability to dynamically show or hide content to the user based on configuration settings. This reduces confusion for users, as they will only see content that is relevant to their configuration.
- **Sequence Wizard Capability:** Through the use of page visibility functions and page step buttons, programmers can create step-by-step wizards to assist users with certain routines (start sequences, calibration sequences, testing sequences, etc).

- **Alarm & Event Viewing:** Via Alarm Monitoring tool designed in conjunction with appropriate application programming.
- **Multiple Security Levels**

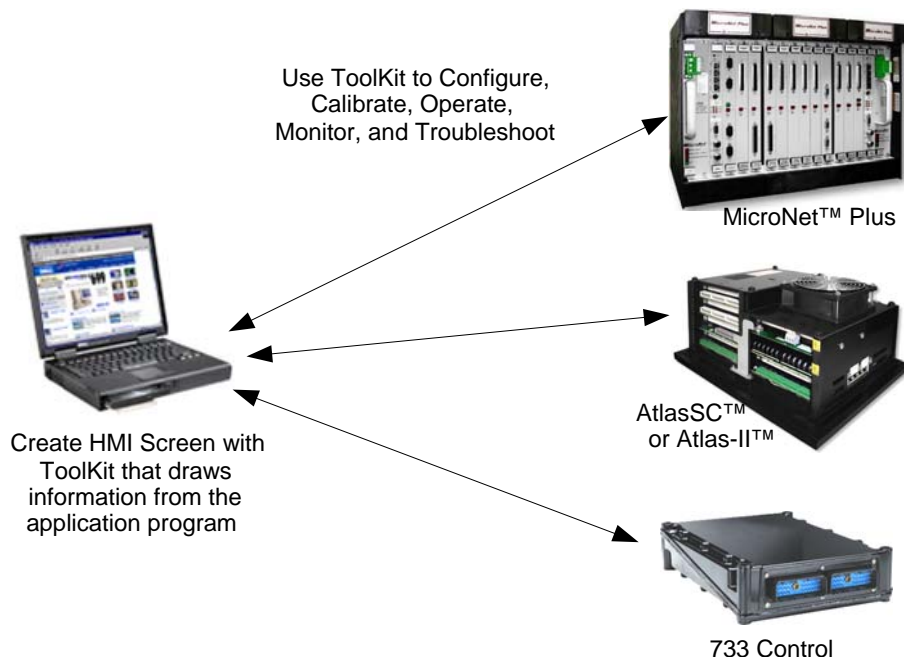
graph can be saved to a spreadsheet-compatible file and used for further analysis.

- **Custom Tool Design:** Parameters can be dragged and dropped in a visual environment to create custom pages within a tool file. There are several components that can be used to represent the parameter such as gauges, drop down boxes, text, etc. The Developer license is required to be able to create and design custom tools.
- **Application Program Loading:** ToolKit provides services to load a new application program onto GAP-based or MotoHawk-enabled control hardware.

## Licenses

ToolKit has two licenses.

- The ToolKit **Basic Runtime license** is included free of charge in the ToolKit download. Depending on the level of security designed in, it allows users the ability to work with existing ToolKit-created tools to configure, calibrate, monitor, and troubleshoot their Woodward-based product.
- The ToolKit **Developer license** (part number 8928-5016) includes the ability to create and edit custom ToolKit tools.

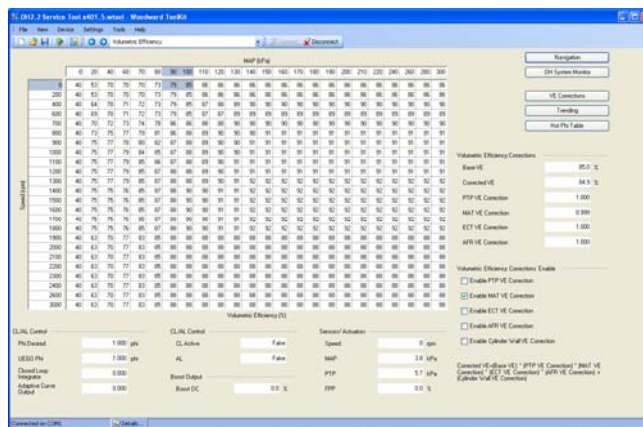
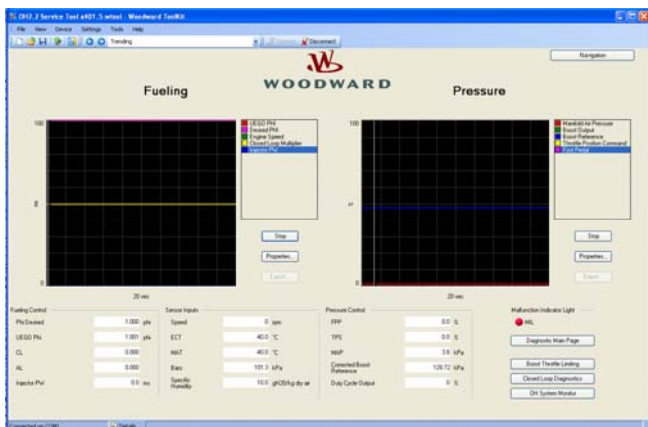


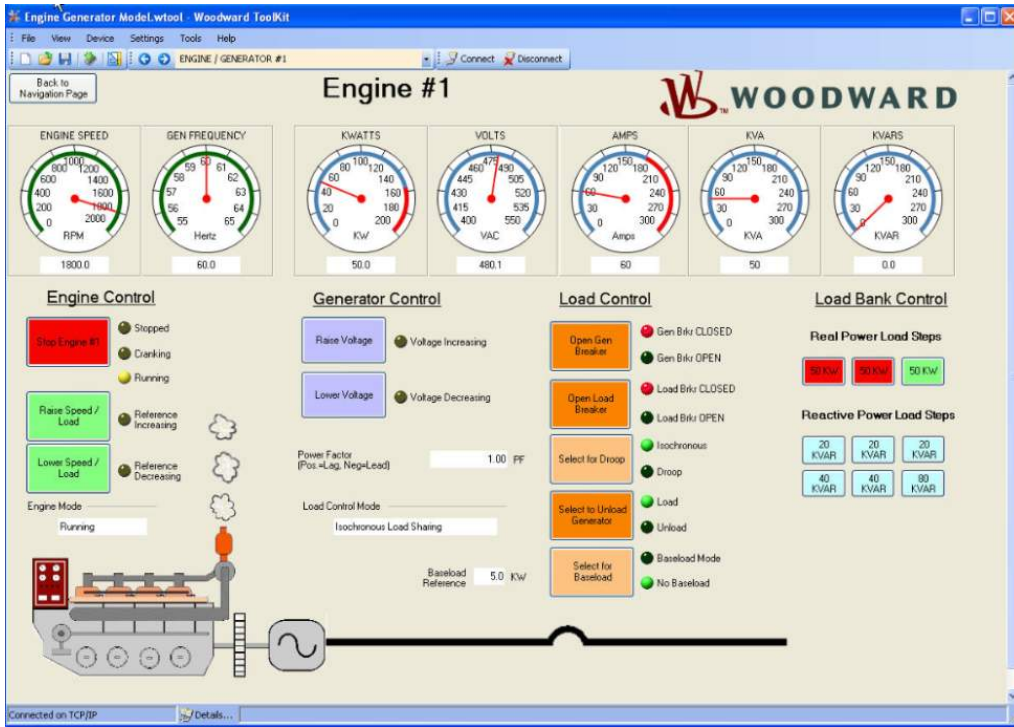
## Specifications

Minimum PC requirements include:

- Microsoft Windows 8, 7, Vista SP1 or later, XP SP3 (32- & 64-bit) [support for XP will end on 8 April 2014]
- Microsoft .NET Framework version 4.0
- 1 GHz Pentium® CPU
- 512 MB of RAM
- 512 MB of RAM
- Minimum 800 by 600 pixel screen with 256 colors
- Serial Port & Serial Extension Cable
- IXXAT or Kvaser CAN adapter and driver

## Sample ToolKit Screens





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**Distributors & Service**

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