

Configuration Software

In this Chapter...

- Introduction to HG1X Software
- Installing HG1X Software
- HG1X Software - Basics
- Create a new Application
- Setup Node
- Create Tag Data Base
- Create Screens
- Define Keys
- Define Alarms
- Application Task List
- Download Application

5.1 Introduction

WindMSG is Windows based software to configure the HG1X Series Interfaces by IDEC Corporation. WindMSG's tools and easy approach can help you create your applications quickly and easily. By using some of WindMSG's new features, you can be more effective in what you need. Whether you need a small application to monitor data or a bigger application for both monitoring and changing data in your PLC, WindMSG has it all. With WindMSG you can get started quickly to use your HG1X Interfaces.

Developing your applications for any HG1X Series is easy using WindMSG. The common functionality found among many Windows applications can also be found here and will allow you to quickly adapt to WindMSG. Once you are familiar with the many visual clues in WindMSG, creating an application will be a breeze. The idea behind designing WindMSG and the HG1X is to allow you to get where you want to... FAST!

You can use WindMSG to configure any HG1X model, to work with ANY of the drivers supported. WindMSG currently supports over 25 PLCs and the following list of HG1X Models:

HG1X Series HG1X-252, HG1X-452

HG1X communicates with a PLC only after downloading correct driver and application into the unit. HG1X user should follow the given procedure to configure and use HG1X:

1. Create an application for required PLC.
2. Connect IBM cable.
3. Download Firmware i.e. driver for the PLC. HG1X models cannot communicate with PLC till the required driver is downloaded.
4. Download application.
5. Now connect the PLC to the unit using PLC cable.

5.2 Installing WindMSG Software

System requirements for installing WindMSG on your PC:

Windows Version	: Microsoft Windows 95 or higher
Processor	: PENTIUM or higher
Hard disk Space	: 5 MB or more
Serial Mouse	: Required
RAM	: 16 MB or more
Display resolution	: 640 x 480 (VGA) or better
Display colors	: 16 colors or more

To install WindMSG software:

1. Open Microsoft Windows. The Start program task button is located at the bottom left portion of your screen.
2. Place the installation CD into your PC's CD drive.
3. Select Run, and a pop-up window appears. Type the path and file name for installing setup (D:\SETUP.EXE). Press OK. Follow the instructions given in the setup software.

5.3 WindMSG Software

HG1X unit has to be configured before its use in any system. Complete configuration consists of defining:

- HG1X Settings
- PLC node
- Tag Database
- Screens and / or Screens Task-List.
- Keys
- Alarms
- Global and Power-on Task list

The complete configuration is stored as an Application. This application is downloaded in HG1X.

1. HG1X Settings:

HG1X Settings define following properties of HG1X:

a. Hardware Settings

- Application Memory
Use this if only you have purchased a nonstandard unit with a different memory option.

b. Keypad options

- Keypad Queue Size
If task for a key is in progress and another key is pressed, then the second key (latest pressed) is stored in a Key Queue. User can change the queue size using this option.
- Queue full options
User has a choice to select what should be done if the queue is full and another key is pressed. Either the first or the last key pressed can be ignored.

4. Screens:

Operator views the PLC data on the screen of the HG1X models. Tasks can be defined for a screen. Also, the action for keys when a screen is acting can be defined.

5. HG1X Global Key's Task-List:

All the keys on the HG1X models can have user selectable definitions. Three types of tasks can be defined for each key: 'Press' Task, 'Pressed' Task, 'Released' Task. Two keys can also be defined for performing Tasks. Each key single or double can have password.

6. HG1X Alarms:

Alarms can be defined in the Alarms Window. Alarms are defined on a single bit of any one word tag. All the tags must be defined before defining the Alarms. Alarms can be set on two types of Tags: Consecutive and Discrete. In consecutive type, HG1X will fetch 16 words from the PLC beginning with the defined tag. Each bit in each of these 16 words will be an alarm bit. In discrete type tags need not be consecutive. Again, in this type each bit of each tag is an alarm bit.

7. HG1X Application Task-List

Application Task List is of two types: Power-on Task-List and Global Task-List. Power-On Task-List is performed only once after the unit is powered on. Global Task-List is performed till the unit and PLC are communicating.

c. Printer Port Options

HG1X has a Serial Printout Facility. User should connect Serial Printer cable to the Serial Port of the HG1X. Communication parameters for serial printing can be changed using this option. *Please note that this does not affect PC to unit communication while downloading firmware or application.*

- Baud Rate
Baud Rates available are 300, 600, 1200, 2400, 9600, 19200.
- Number Of Bits
Data bits can either be 7 or 8.
- Parity
Parity options are Odd, Even, None.
- Number of Columns
User can select the column size i.e. length of a line to be printed. After the specified number of characters, HG1X sends a terminating character.
- Terminating Character
Options for terminating character are None, CR, LF, CR+LF.

2. HG1X Network Configuration:

This setting selects the PLC Model, PLC type, Node number in a system. User can also connect multiple PLCs of the same type (protocol) to a single HG1X. Each PLC must have unique identification number which is termed as NODE ID.

3. HG1X Tags:

Each register in the PLC memory has a unique address and can be identified by giving a specific name to it. This information is stored as Tag Data Base in WindMSG. Any coil or register to be used in the application must be first defined in the Tag data base.

4. Screens:

Operator views the PLC data on the screen of the HG1X models. Tasks can be defined for a screen. Also, the action for keys when a screen is acting can be defined.

5. HG1X Global Key's Task-List:

All the keys on the HG1X models can have user selectable definitions. Three types of tasks can be defined for each key: 'Press' Task, 'Pressed' Task, 'Released' Task. Two keys can also be defined for performing Tasks. Each key single or double can have password.

6. HG1X Alarms:

Alarms can be defined in the Alarms Window. Alarms are defined on a single bit of any one word tag. All the tags must be defined before defining the Alarms. Alarms can be set on two types of Tags: Consecutive and Discrete. In consecutive type, HG1X will fetch 16 words from the PLC beginning with the defined tag. Each bit in each of these 16 words will be an alarm bit. In discrete type tags need not be consecutive. Again, in this type each bit of each tag is an alarm bit.

7. HG1X Application Task-List

Application Task List is of two types: Power-on Task-List and Global Task-List. Power-On Task-List is performed only once after the unit is powered on. Global Task-List is performed till the unit and PLC are communicating.

Run WindMSG.exe. Following splash screen will be displayed.



Main window will be displayed after the splash screen. Main window consists of two main parts: Menu Bar and the Tool Station.

Menu bar operates in the normal manner. Click with mouse or use keys in combination with ALT key just like any other standard Windows based software.

Tool-Station consists of icons. When mouse points to any icon, a tool-tip is displayed. Click on the icon to select the particular menu.

