Desktop Operation Sensor ™ User Guide

February 2012 Edition
Part Number 02292012-03

Worldwide Technical Support and Product Information

www.manualends.com

For further support information, see the *Technical Support Resources* appendix.
To comment on the documentation, send e-mail to

support@manualends.com

Important Information

Warranty

The media on which you receive ManualEnds Technology software are warranted not to fail to execute programming instructions, due to defects in materials and workmanship, for a period of 30 days from date of shipment, as evidenced by receipts or other documentation. ManualEnds Technology will, at its option, repair or replace software media that do not execute programming instructions if ManualEnds Technology receives notice of such defects during the warranty period. ManualEnds Technology does not warrant that the operation of the software shall be uninterrupted or error free. A Return Material Authorization (RMA) number must be obtained from the factory and clearly marked on the outside of the package before any equipment will be accepted for warranty work. ManualEnds Technology will pay the shipping costs of returning to the owner parts which are covered by warranty. ManualEnds Technology believes that the information in this document is accurate. The document has been carefully reviewed for technical accuracy. In the event that technical or typographical errors exist, ManualEnds Technology reserves the right to make changes to subsequent editions of this document without prior notice to holders of this edition. The reader should consult ManualEnds Technology if errors are suspected. In no event shall ManualEnds Technology be liable for any damages arising out of or related to this document or the information contained in it. Any action against ManualEnds Technology must be brought within 30 days after the cause of action accrues. ManualEnds Technology shall not be liable for any delay in performance due to causes beyond its reasonable control. The warranty provided herein does not cover damages, defects, malfunctions, or service failures caused by owner's failure to follow the ManualEnds Technology installation, operation, or maintenance instructions; owner's modification of the product; owner's abuse, misuse, or negligent acts; and power failure or surges, fire, flood, accident, actions of third parties, or other events outside reasonable control.

Copyright

Trademarks

ManualEnds Custom Designed Program, Macro Interface Compiler ™, Supercomputer ™, ME Cluster ™ - Custom Designed Program, MacroEditor ™, RemoteNet ™, Server Monitor ™, ME Cluster ™ - IP Relay Server, ME Cluster ™ - Load Balance, Macro Independence ™, ManualEnds Failover Technology ™ , are trademarks of ManualEnds Technology Corporation. Product and company names mentioned herein are trademarks or trade names of their respective companies.

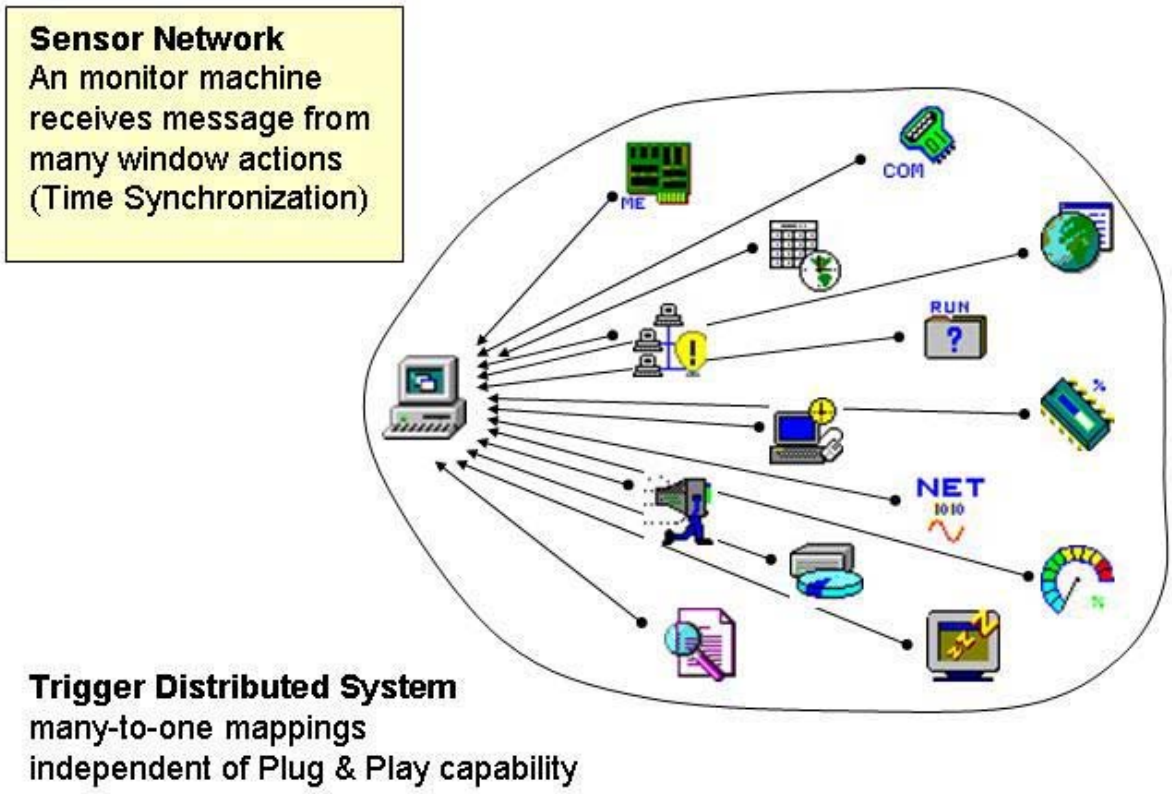
Table of contents

1 What is Desktop Operation Sensor?

Desktop Operation Sensor is Multi-Tasking software sensor package with time synchronization and automating setup of monitor with plug & play capability.

Desktop Operation Sensor allows you to trigger and monitor many window processes at the same time (Time Synchronization). Windows are the primary means a graphical application has to interact with the user and accomplish tasks. **Desktop Operation Sensor** which interfaces to the windows world monitors and controls the tasks.

Figure 1.1 "Plug & Play" Sensor Network System

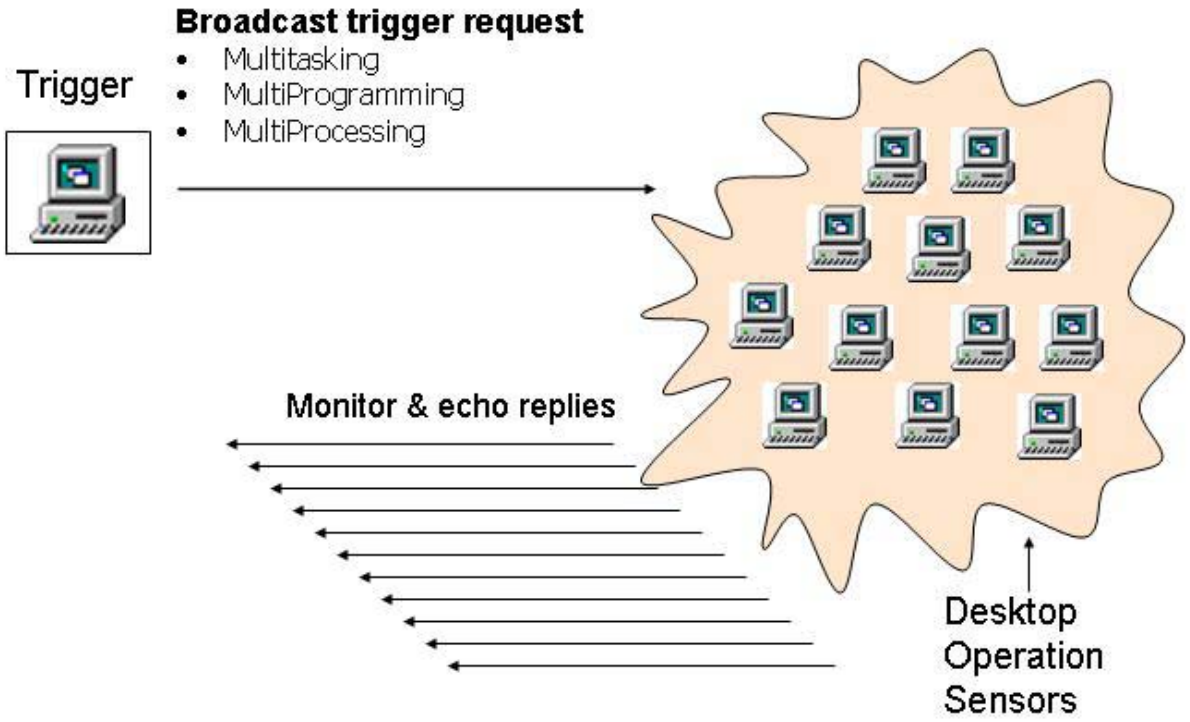


Why Choose Desktop Operation Sensor?

Multi-Tasking monitor

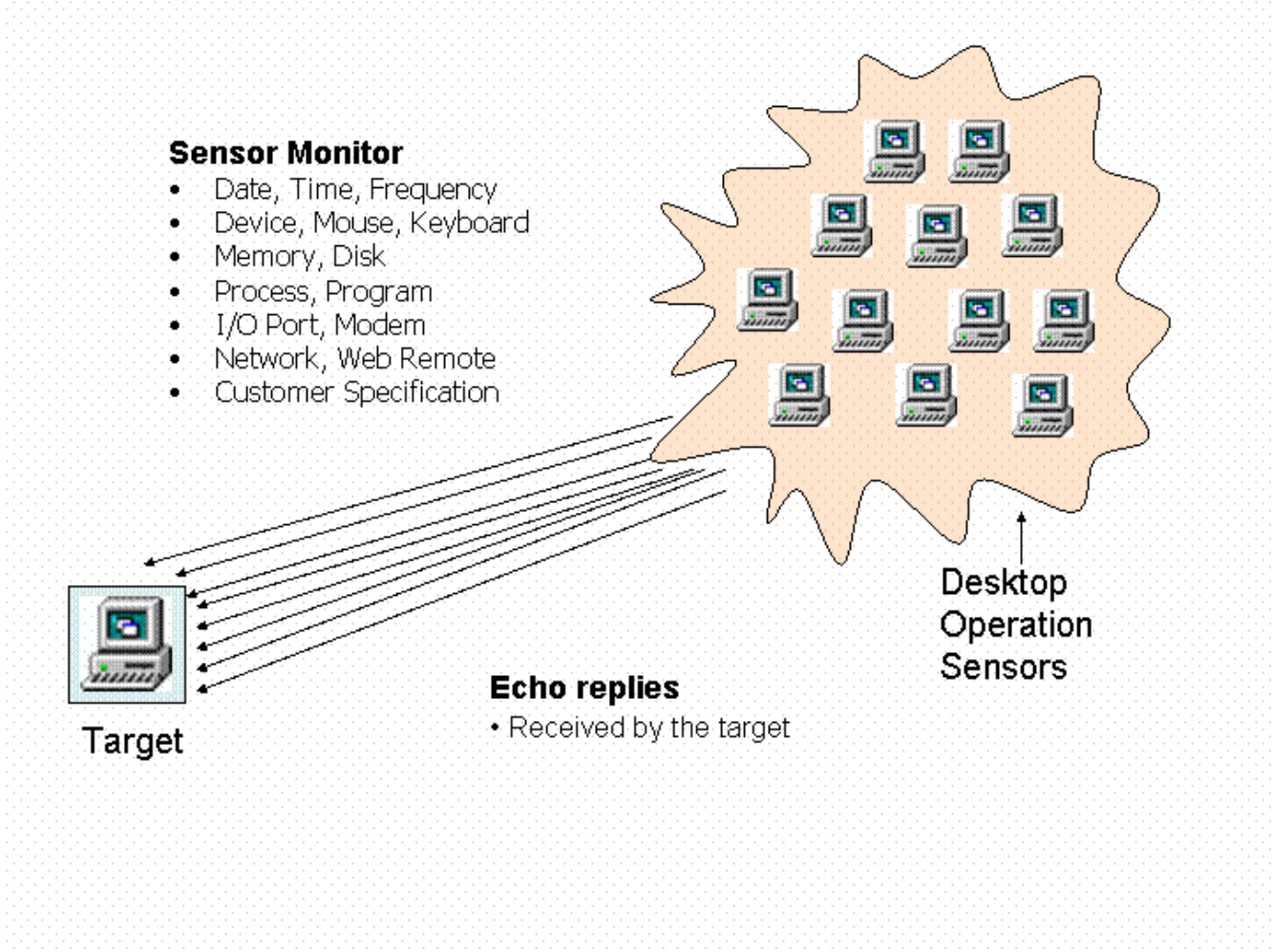
In the world of real-time, it is rare that an application performs only one task, typically, multiple tasks must be performed. In addition, these tasks must be performed "at the same time" and must meet certain time constraints. For example, if a monitoring system for a network database must check the data file for update 10 times per hour, or at specified time conditions, the system must perform several operations. It must monitor the data through the network, it must watch the data file at different time, it must check and compare the data file, and finally it will probably archive or update the data file to the disk. Each of these tasks must be performed concurrently with the others and must meet the timing constraints. In **Desktop Operation Sensor**, the ability to monitor multiple processes allows an application to trigger multiple tasks.

Figure 1.2 Multi-Tasking Monitor Systems



There are five different groups of sensors: System group, Timer group, Desktop group, Remote group, I/O group, and Trace Group. You could put one, two, or any number of group sensors to monitor multiple processes at the same time.

Figure 1.3 Sensor System Group



Moving Forward with Plug & Play Software Sensor ™ :

Desktop Operation Sensor provides quicker, more automated and system setup for Plug and Play Sensors configuration. When program starts, **Desktop Operation Sensor** will scan its sensor pool to check if there is any new plug & play sensor.

Note:

ManualEnds Technology develops many “plug & play” software sensors and could design it under your specification.

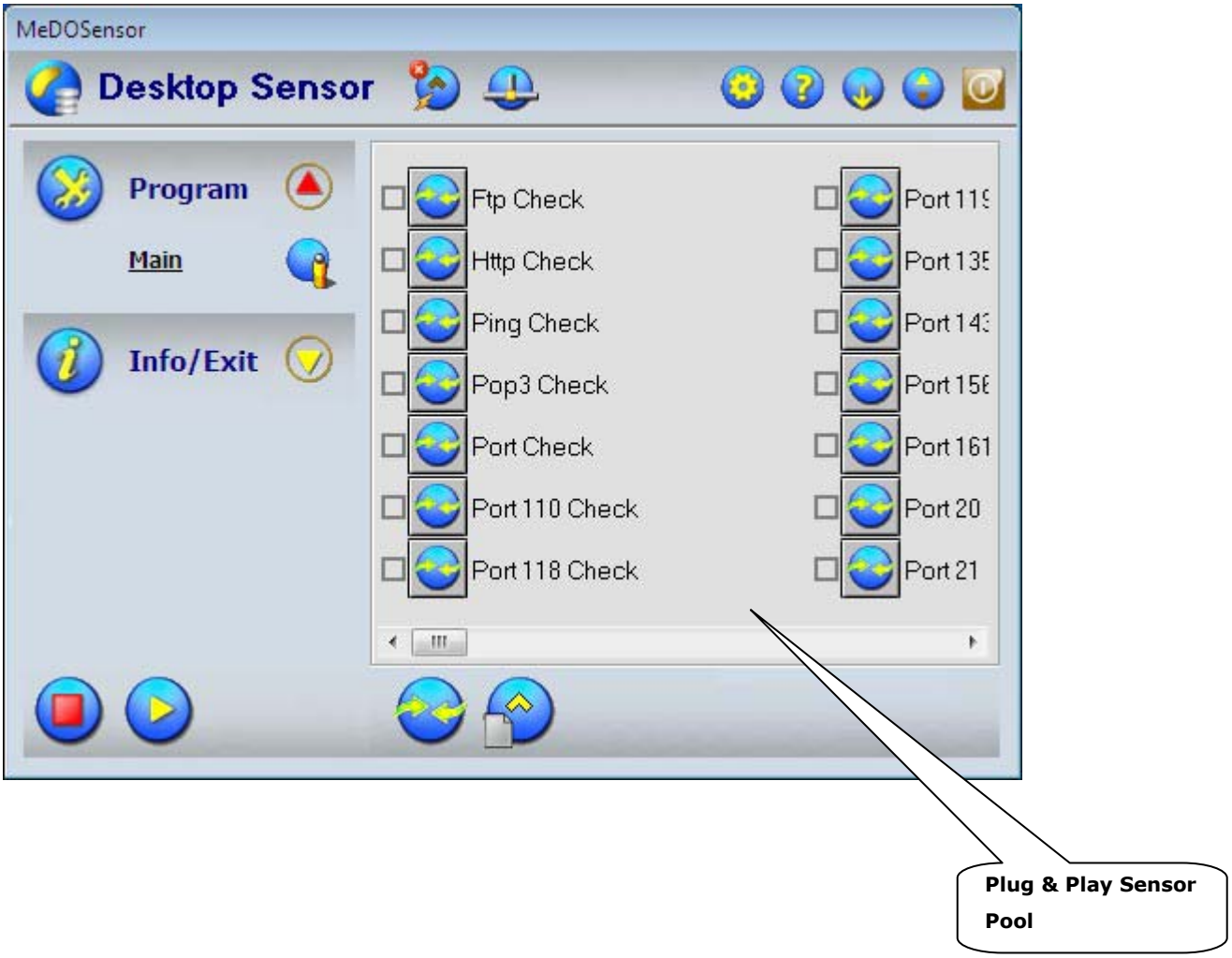
Please visit our Web Site and download available plug & play software sensor package.

How Does Desktop Operation Sensor Work?

Desktop Operation Sensor has **two** sections, Sensor List section and Trigger List section.

In Sensor List section, it contains many different types of action sensors, select your multi-tasking monitor sensors in just few clicks.

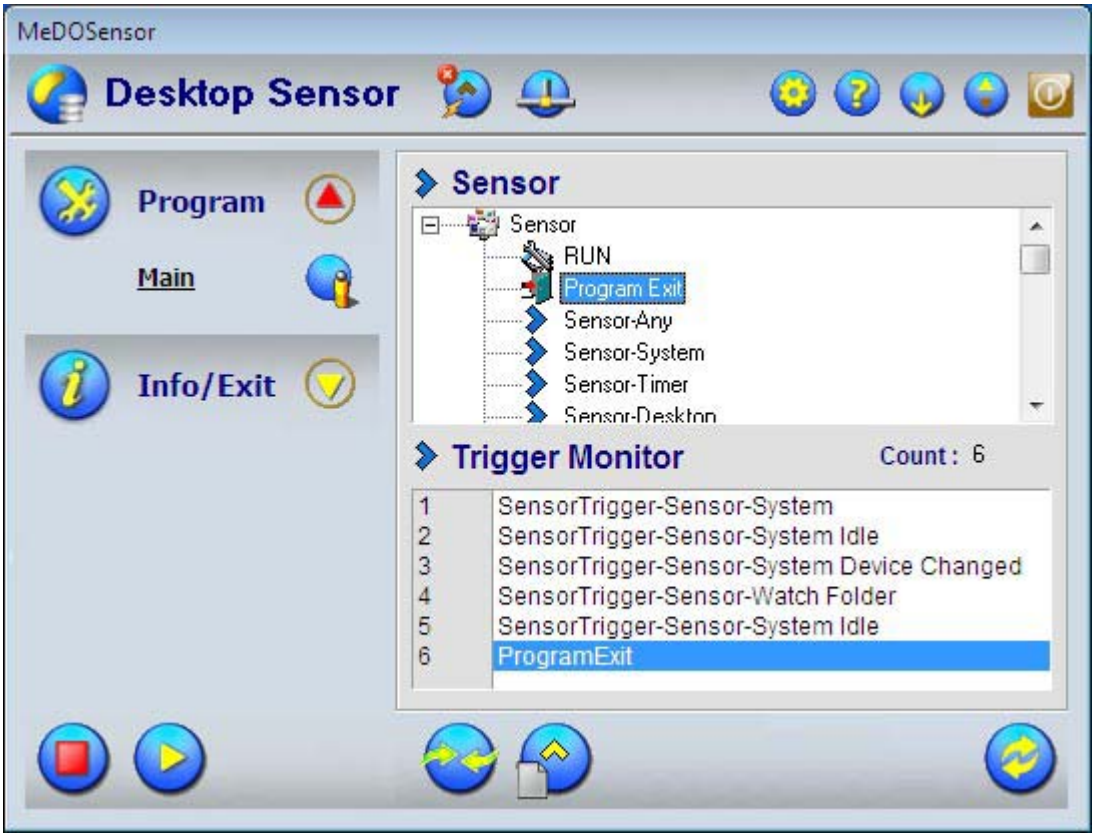
Figure 1.4 Section Main – Sensor Pool List



In Trigger Action List section, create your automatic trigger process in just three steps. These steps are carried out in order you specify.

You can create a trigger action process in three basic steps. ***First***, you *select* the type of trigger sensor you want to create from **Desktop Operation Sensor's** Sensor Pool List window. ***Second***, you *configure* the *Macro* action. ***Finally***, you execute your sensor process just Click on RUN button.

Figure 1.5 Sections Main – Trigger Action List.

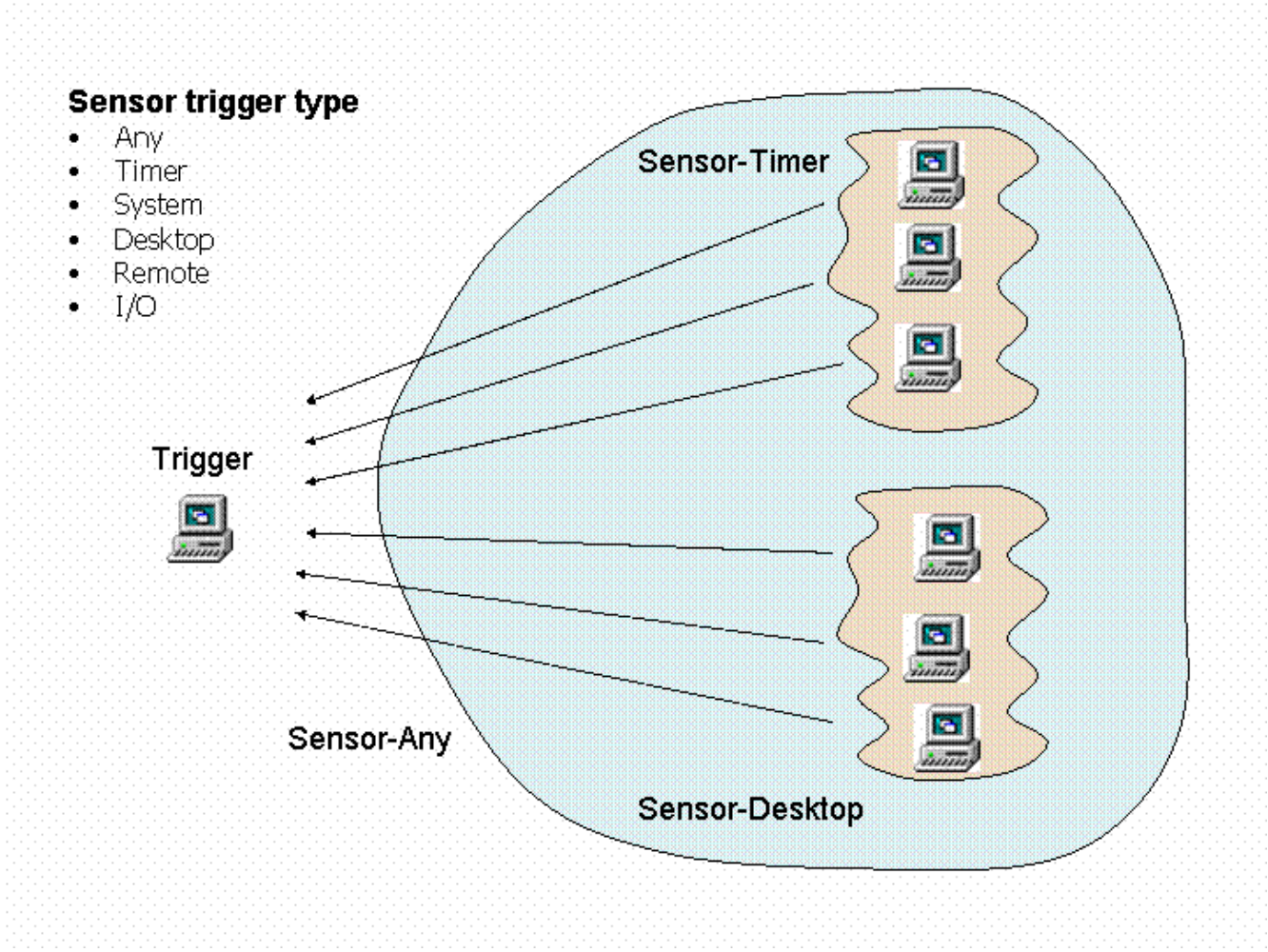


Trigger:

Each multi-tasking sensor will monitor window action and standby for trigger. You could select trigger type for Sensor-Any, or by group of Sensor-System, Sensor-Timer, Sensor-Desktop, Sensor-Remote, and Sensor-I/O …etc.

Sensor-Loop:	Sensor Trigger Loop.
Sensor-Any:	Receive any sensor's echo and then trigger.
Sensor-System:	Receive (only) System group sensor's echo and then trigger.
Sensor-Timer:	Receive (only) Timer group sensor's echo and then trigger.
Sensor-Desktop:	Receive (only) Desktop group sensor's echo and then trigger.
Sensor-Remote:	Receive (only) Remote group sensor's echo and then trigger.
Sensor-I/O:	Receive (only) I/O group sensor's echo and then trigger.
Sensor-Trace:	Receive (only) Trace group sensor's echo and then trigger.

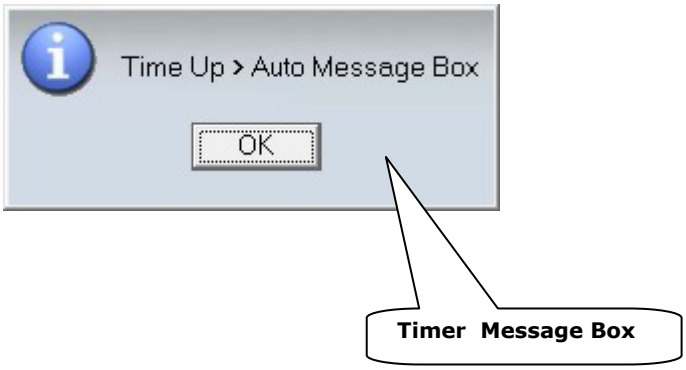
Figure 1.6 The **trigger type** of Desktop Operation Sensor.



Auto Message Box

With Desktop Operation Sensor, any information will be appeared with timer message box. Message box will disappear in few seconds.

Figure 1.7 Timer Message Box



Sensor Group

Sensor – Timer: Timer control sensor, such as, Hour, Minute, Second, Daily Frequency and Windows Running time.

Sensor – System: Window action control sensor, such as, System Exit Request, Display Resolution Changed, System Device Changed, System Fonts Changed, Printer Job Active, System Color Changed, System Time Changed, and System Setting Changed.

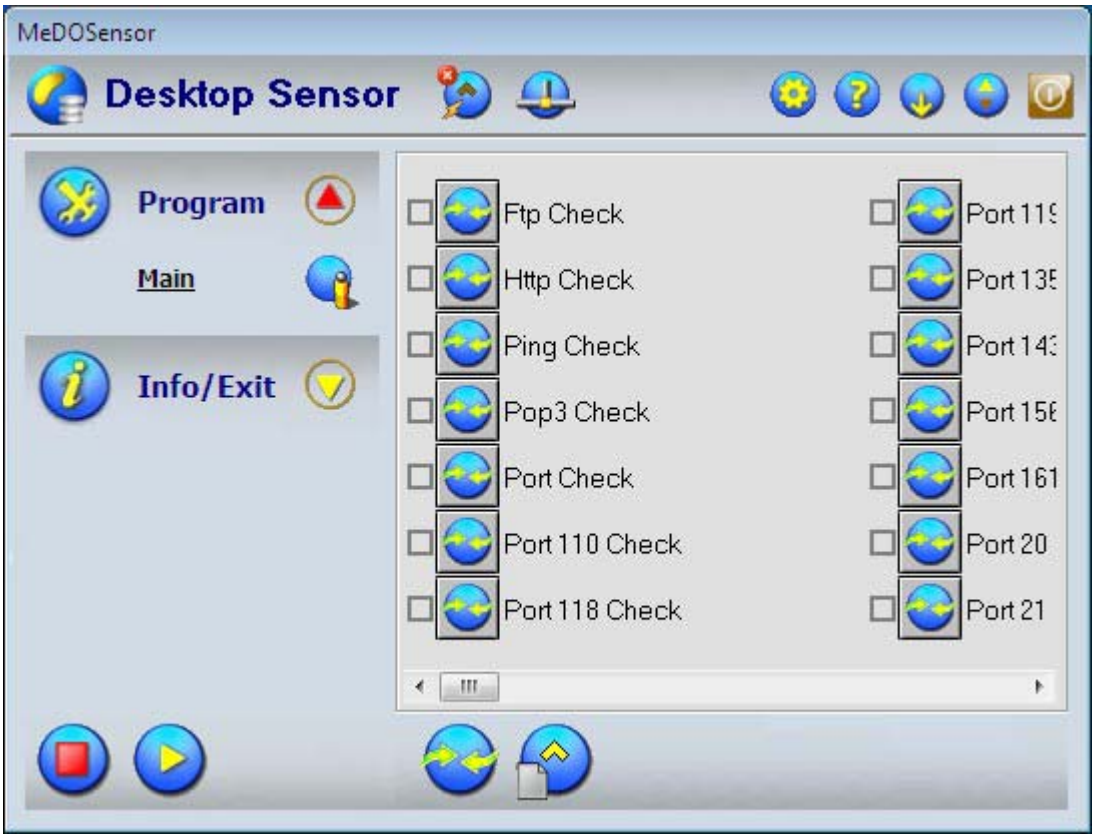
Sensor – Desktop: Desktop action sensor, such as, System Idle, Watch Folder, Download Monitor, Upload Monitor, Hard Disk Space, Physical Memory, Page File Memory, Virtual Memory, Modem Status, Running Program, and Not Running Program.

Sensor – I/O: Interface I/O control sensor, such as, Interface Input and Com Port Input.

Sensor – Remote: Remote control sensor, such as, Web Remote.

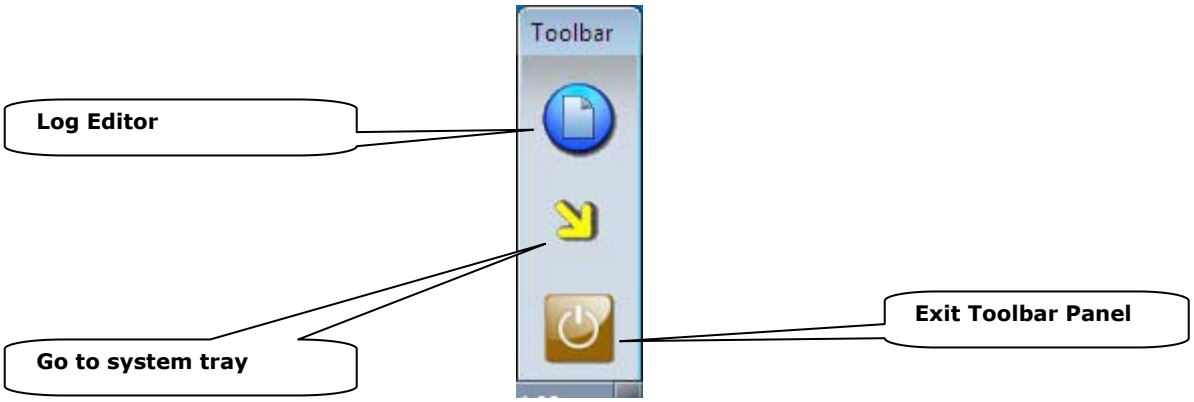
Sensor – Trace: Trace control sensor, such as, Trace Window Title.

Figure 1.8 Sensor Group



Toolbar - Tools

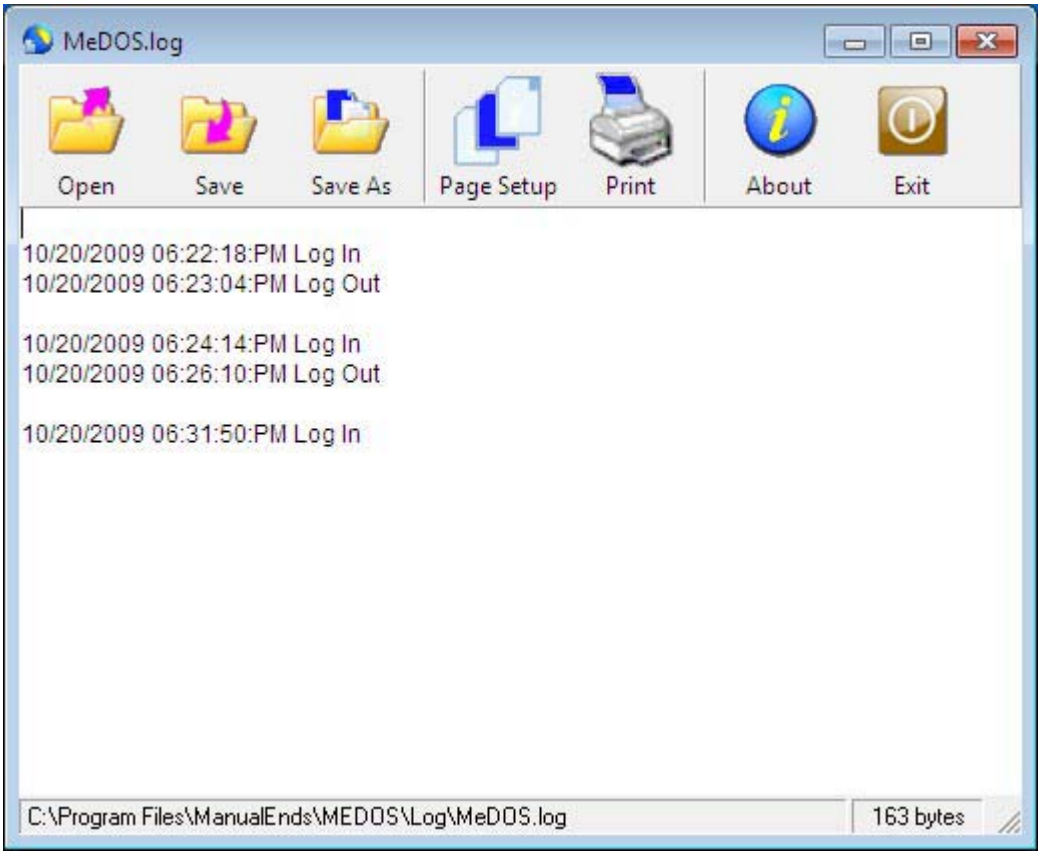
Figure 1.9 Toolbar Panel - Tools



Log Editor

The Log Editor tool allows you to edit .LOG file.

Figure 1.13 Log Editor tool



2 Getting Started

This chapter describes the system requirements for the Desktop Operation Sensor software and contains installation instructions.

System Requirements

Make sure you have the following minimum components in place before you attempt to install and use Desktop Operation Sensor:

- Pentium class PC running at 266 MHz or faster
- 128 MB RAM (256MB recommended)
- Windows 7/Vista/2008/2003/XP with .NET 2.0, or later
- 20 MB of local hard disk space
- Another 15 MB (or more) free disk space (depending on how much data you intend to log to the internal database)
- For Network automation, your computer must have Network card and TCP/IP installed and functioning

Install Desktop Operation Sensor

CD

- Before you install Desktop Operation Sensor, make sure you have shut down all applications.
- Insert the Desktop Operation Sensor compact disc in the CD-ROM drive.
- Use the appropriate command in your operating environment to run the setup program, which is available in the root directory on the compact disc.
- Select Read Me for update information.
- Select **Program Installation**. (For All Windows) or **Program Installation (2003/XP/2008/Vista/7)**. (For Windows 2003/XP/2008/Vista/7).
- Follow the setup instructions on screen.

Download from Internet (www.manualends.com)

- Before you install Desktop Operation Sensor, make sure you have shut down all applications.
- Select **MEDOSvr2X.exe (2003/XP/2008/Vista/7)**. (For Windows 2003/XP/2008/Vista/7).
- Follow the setup instructions on screen.

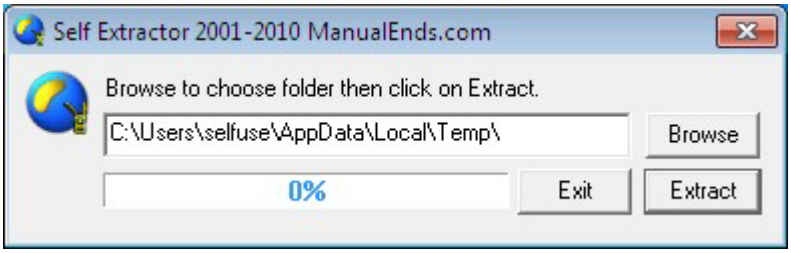
Note:

MEDOSvr2X.exe is for English Operation System

Installation under Windows 2003/XP/2008/Vista/7

- The **MEDOSvr2X.exe** is Self-Extracting Archive program developed by ManualEnds Technology.
- For Vista and Windows 7, please select program icon, Click on Mouse **Right** Button and select "**Run as Administrator**".

Figure 2.1.1 ManualEnds Self-Extracting Archive program



- Click on the **Browse** path to extract setup files for Installation**.**
- Select the destination path or input path name as following: (Default: Temp\ directory of your Windows Operation)
- Click on the Extract button to start unzip the files.
- It will take few seconds to unzip all files to the directory.
- When completed the unzip files, the Start program screen will start automatically.

Figure 2.1.2 ManualEnds Start program screen

- When completed loading files, the Setup program screen will start automatically.

Figure 2.1.3 ManualEnds Setup program screen

(Note: If Setup program screen could not start automatically, please close all Anti-Virus/Firewall programs and try it again.)

- Please read **ReleaseNote.htm** file for additional information about Desktop Operation Sensor.

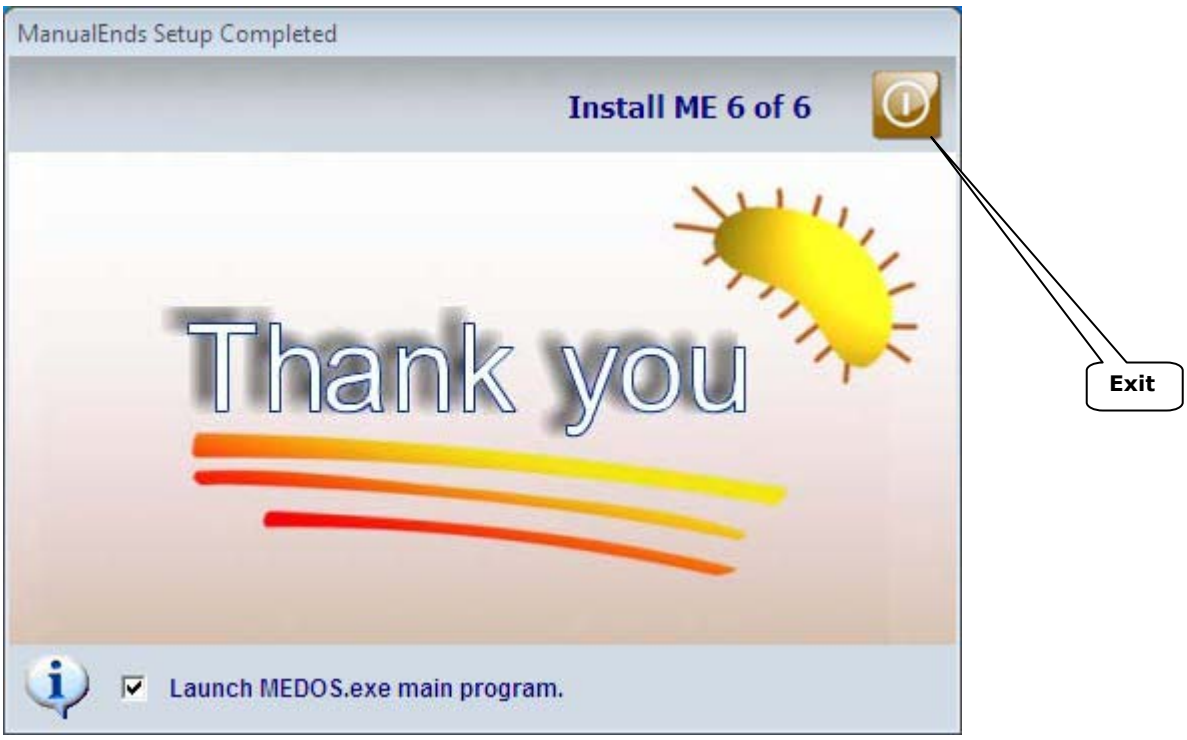
- **Read** License Agreement and select **Accept the Agreement** for next step. The Next button will be enabled for Click on.

Figure 2.1.4 Read and select “Accept the Agreement”

- Select the Destination Directory for Desktop Operation Sensor (Default: **Program Files\ManualEnds\MEDOS**).
- Select the destination path or input path name. The setup program will create directory automatically.
- Select the program Folder name (Default: **MEDOS**)
- Confirm the data and Click on “Next” to start copy files.
- It will take few seconds to copy all files to your system.
- Please **Wait** setup program crates program group and then Click “Exit” to finish the setup program.

- The program group will contain two program files, Uninstaller.exe (Uninstall Desktop Operation Sensor) and MEDOS.exe. (Check the location of MEDOS.exe and Uninstaller.exe are inside the program task bar).

Figure 2.1.5 Setup completed



Starting the Desktop Operation Sensor

When you run the Setup program, it allows you to place the program items in an existing program group or create a new program group and new program items for Desktop Operation Sensor in Windows. You are then ready to start Desktop Operation Sensor from Windows.

To start Desktop Operation Sensor from Windows

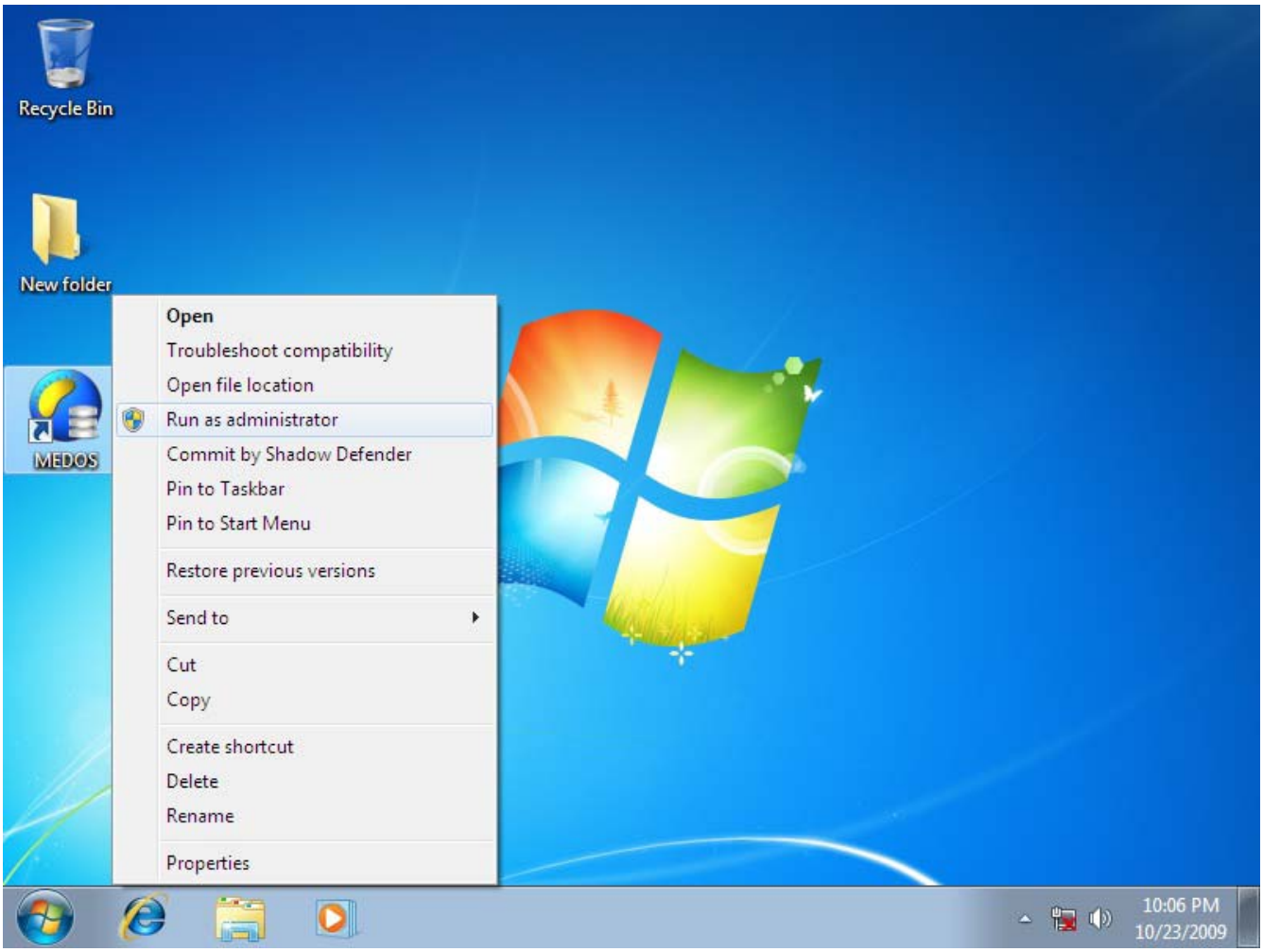
- Click **Start** on the Task bar
- Select **Programs**, and then **MEDOS**.

–or–

Click **Start** on the Task bar. Select **Programs**. Use the **Windows Explorer** to find the MEDOS executable file (MEDOS.exe).

- Double-click the MEDOS icon.
- For Vista and Windows 7, please select program icon, Click on Mouse **Right** Button and select "**Run as Administrator**".

Figure 2.2.1 Run as Administrator



You can also create a shortcut to MEDOS, and double-click the shortcut. When you first start MEDOS, you see the welcome screen of ManualEnds Technology, as shown in Figure 2.2.2.

Figure 2.2.2 The Welcome screen of Desktop Operation Sensor.

Figure 2.2.3 Demo version Limitation

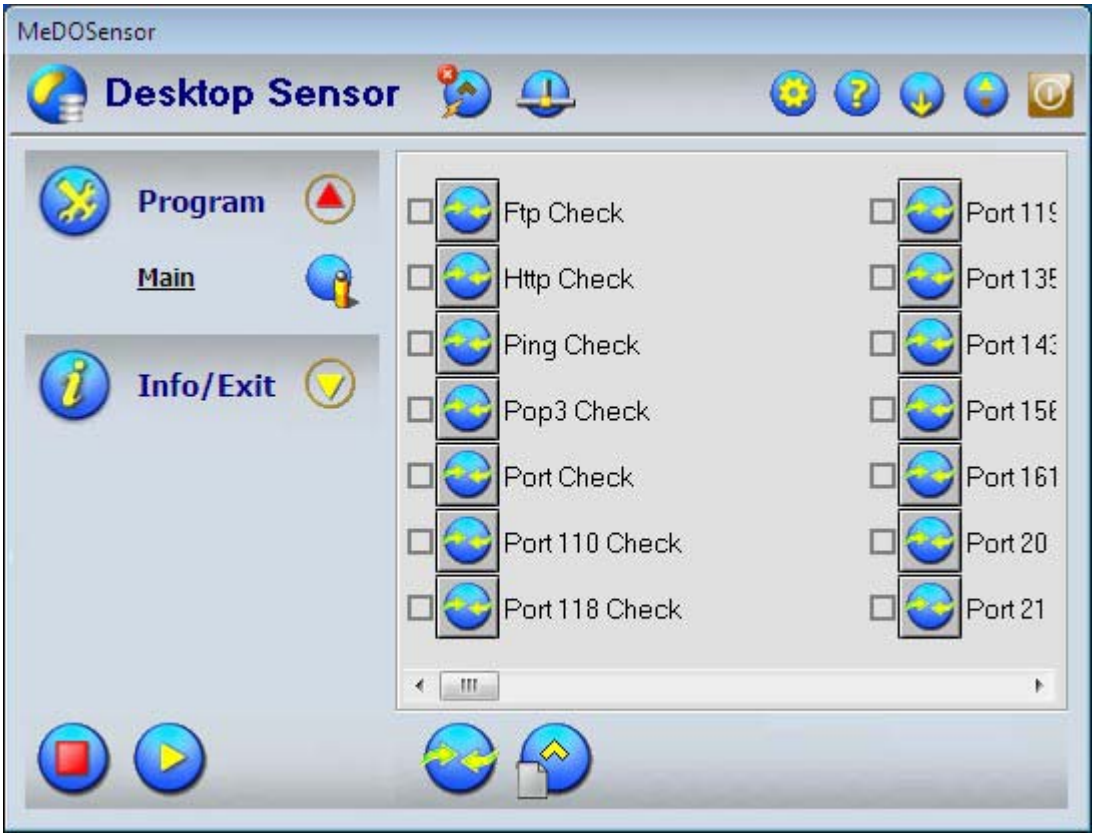
Note:

Once you have purchased a product, ManualEnds will email you a "Fully Licensed Version".

Development Environment

The Desktop Operation Sensor integrated development environment consists of the following elements.

Figure 2.2.4 Desktop Operation Sensor Menu




: “Start”, to start Desktop Operation Sensor immediately.


: “Stop”, to stop Desktop Operation Sensor immediately.

Sensor

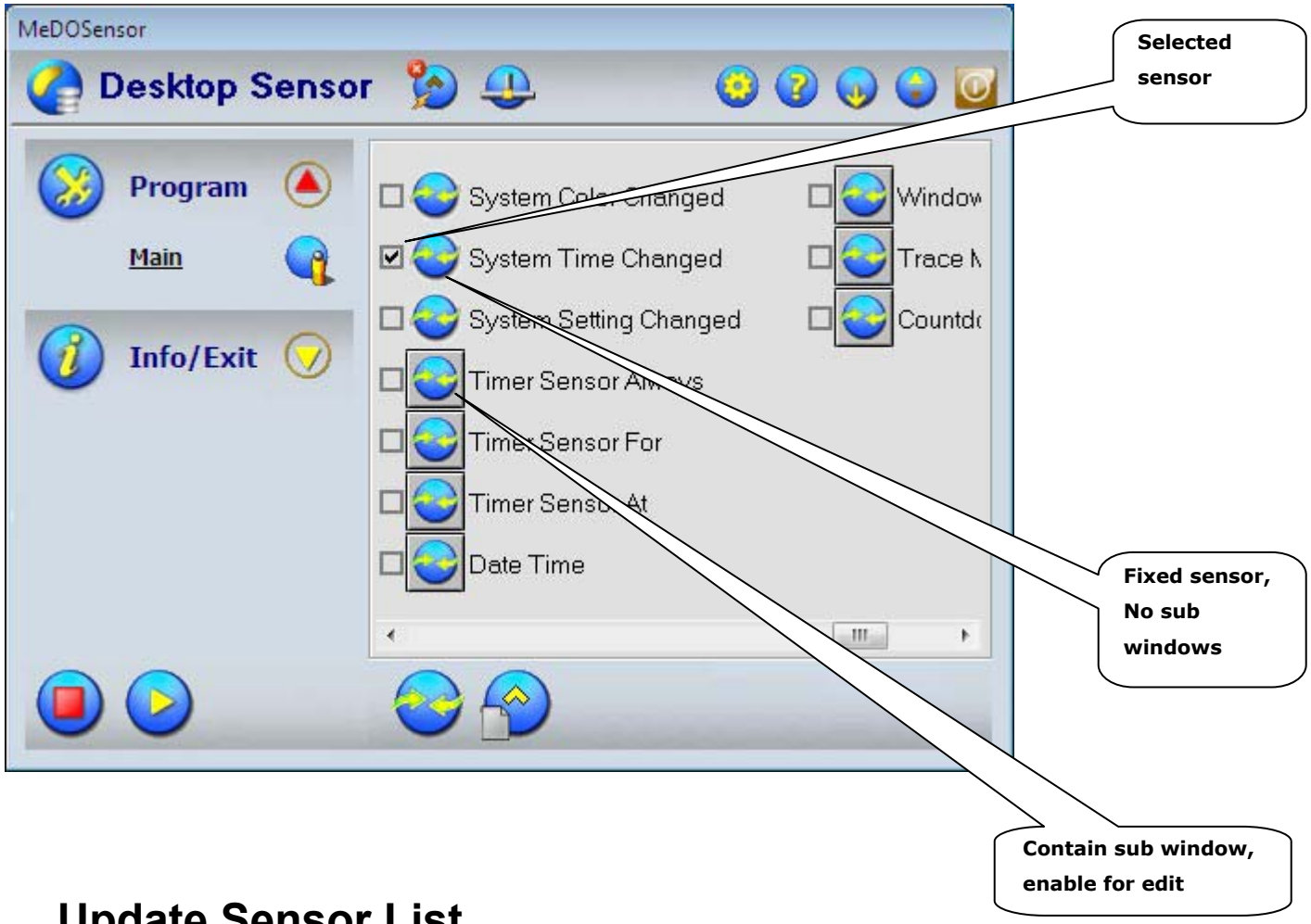

: “Enable edit” type:
Contains sub window and enable for edit (such as, Timer Sensor, Desktop Sensor, I/O Sensor, Remote Sensor …etc)


: “Disable edit” type:
Fixed action sensor and disable to edit (such as, System Sensor... etc)

Program Section – Main-Sensor List

In Sensor Pool List section, it contains many different types of action sensors, select your multi-tasking monitor sensors in just few steps.

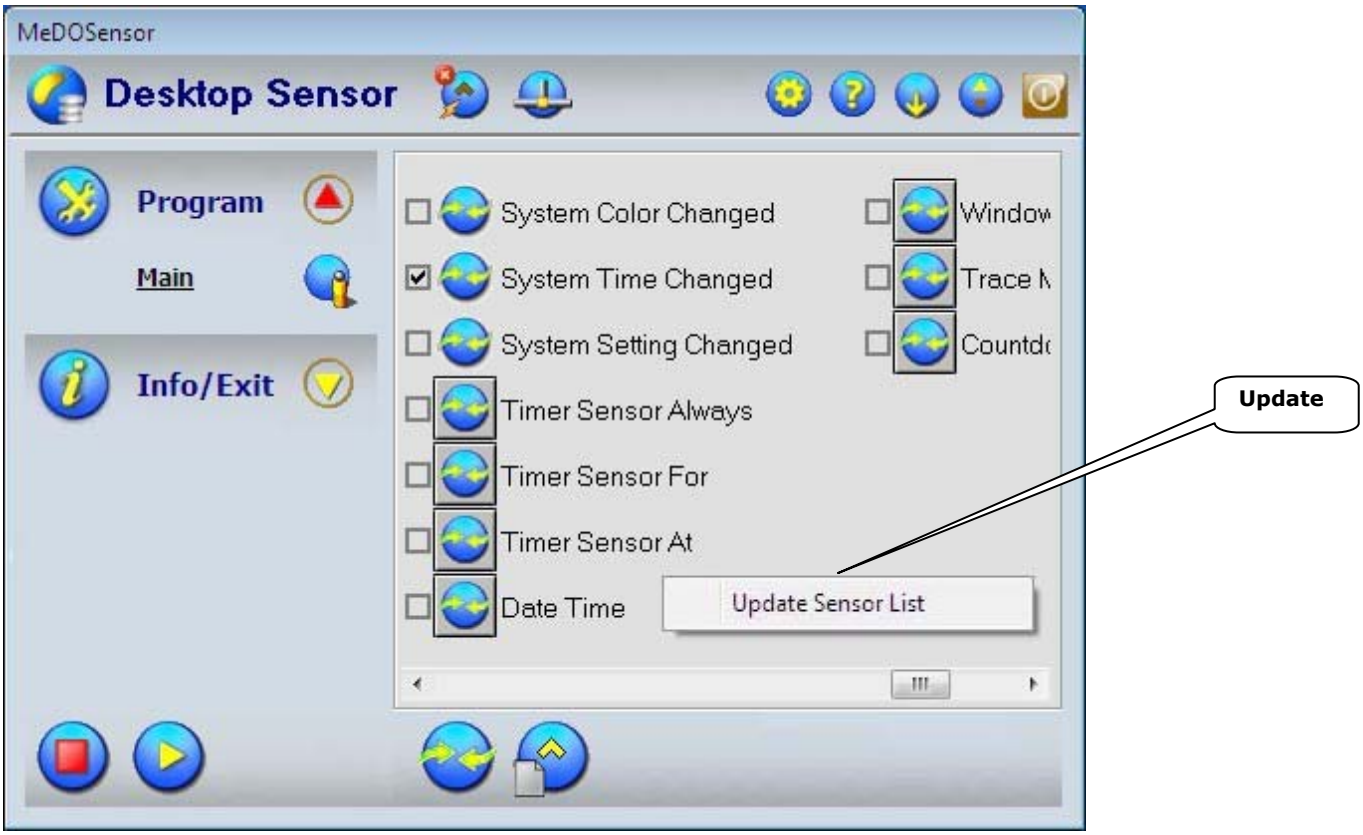
Figure 2.2.5 Sensor Pool List



Update Sensor List

Desktop Operation Sensor software includes a directory of Plug & Play Sensors, located in the *Sensor* folder. ManualEnds Technology develops many Plug & Play sensors and they are available to you at no cost, are updated daily, and can be found in the Download Section of our Web site at www.manualends.com. After download the new Plug & Play Sensor Package, just press Update Sensor button (**Above** Sensor Pool List, **Right Click** mouse button).

Figure 2.2.6 Update Sensor List (Right mouse click)



Section – Main - Trigger List

Action: includes **four** different types of modules, RUN, Start Macro Automation, Program Exit and trigger Sensor type.

"RUN"

To run an application program

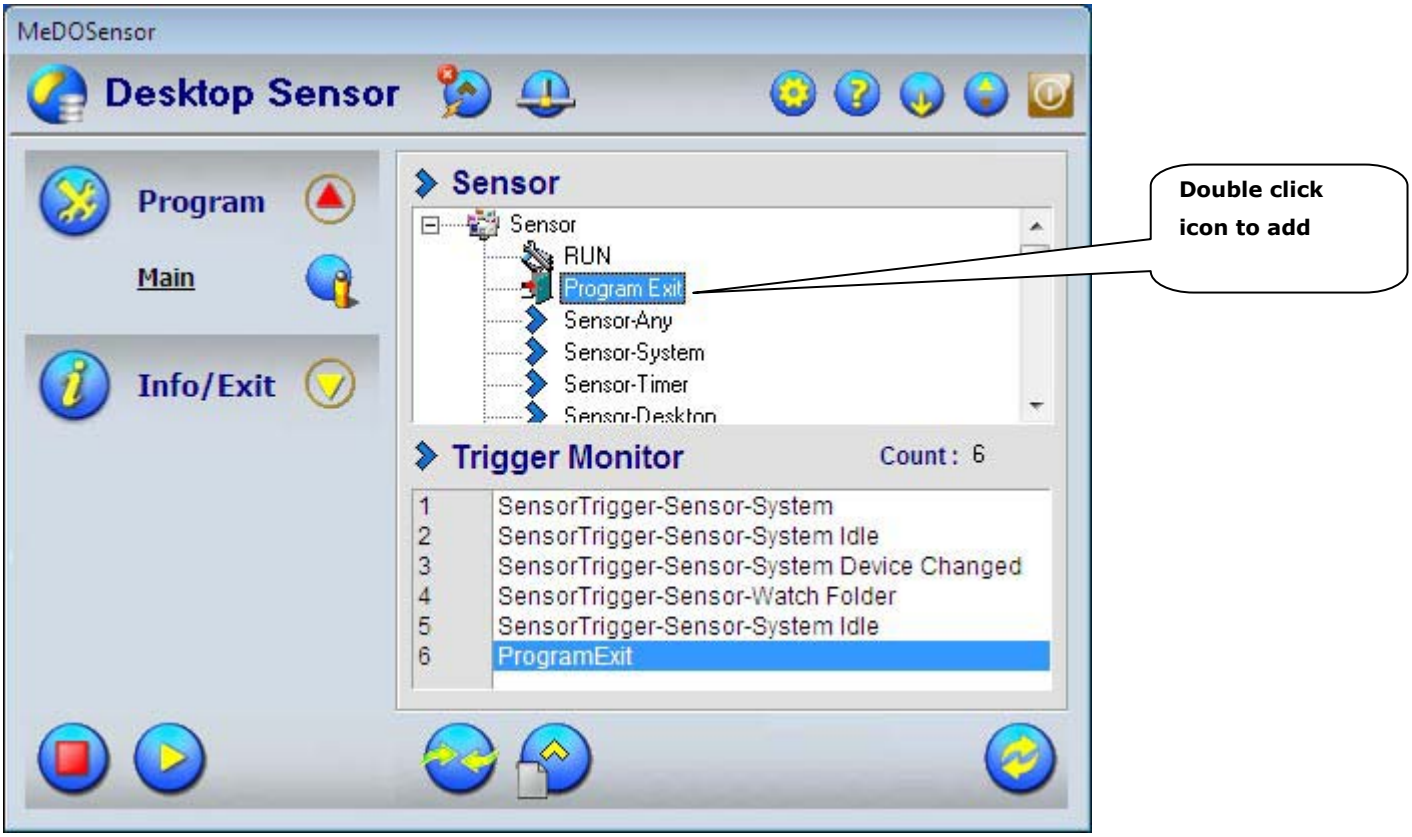
"Program Exit"

Exit Desktop Operation Sensor program.

"Sensor-" select the group type of sensor

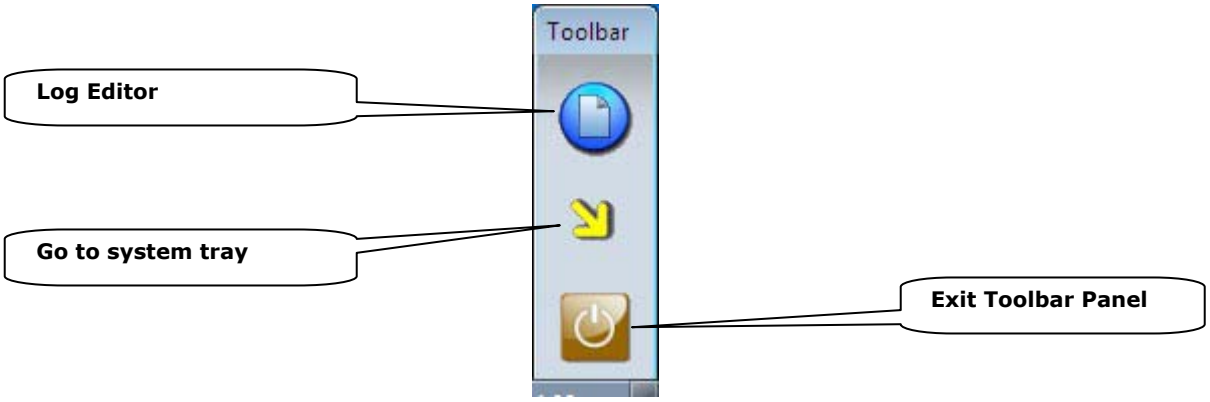
Select trigger sensor type. Included Sensor-Loop, Sensor-Any, Sensor-System, Sensor-Timer, Sensor-Desktop, Sensor-Remote, Sensor-IO, Sensor-Trace…etc

Figure 2.2.7 Trigger Action List



Toolbar

Figure 2.2.8 Toolbar Panel – Tools



Program go to system tray

Locate Desktop Operation Sensor at system tray and restore Desktop Operation Sensor by **Right** Click on mouse button, the popup manual window will show up.

Figure 2.2.9 Desktop Operation Sensor resides in the system tray. Press **Left** and **Right** mouse button for popup windows

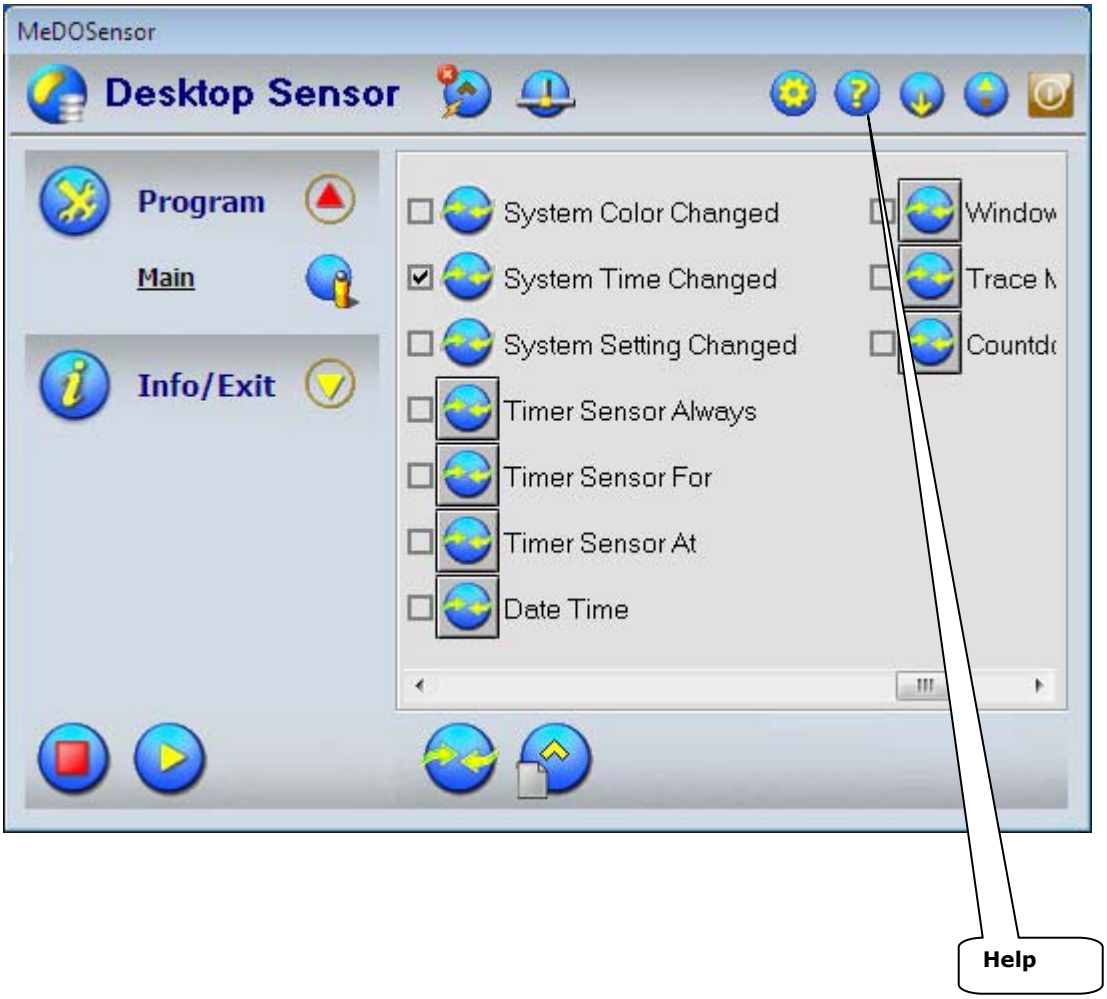
Info/Exit Section

Help, About

During the developing stage, just Click on Help button, you could check any rules, data limit, or error message for your reference.

The Registration Box is located at “About” button. The Registration Box will be disappeared during program start up after input your Registered Key Code which will send to you from ManualEnds Technology.

Figure 2.2.10 Help and About



Auto Mode


: “Enable Auto Mode”
Enable Desktop Operation Sensor RUN automatically when computer power on.


: “Disable Auto Mode”
Disable Auto Mode (Default: Disable).

Figure 2.2.11 Enable the Auto Mode could let **Desktop Operation Sensor** executing at start up when you power on your computer

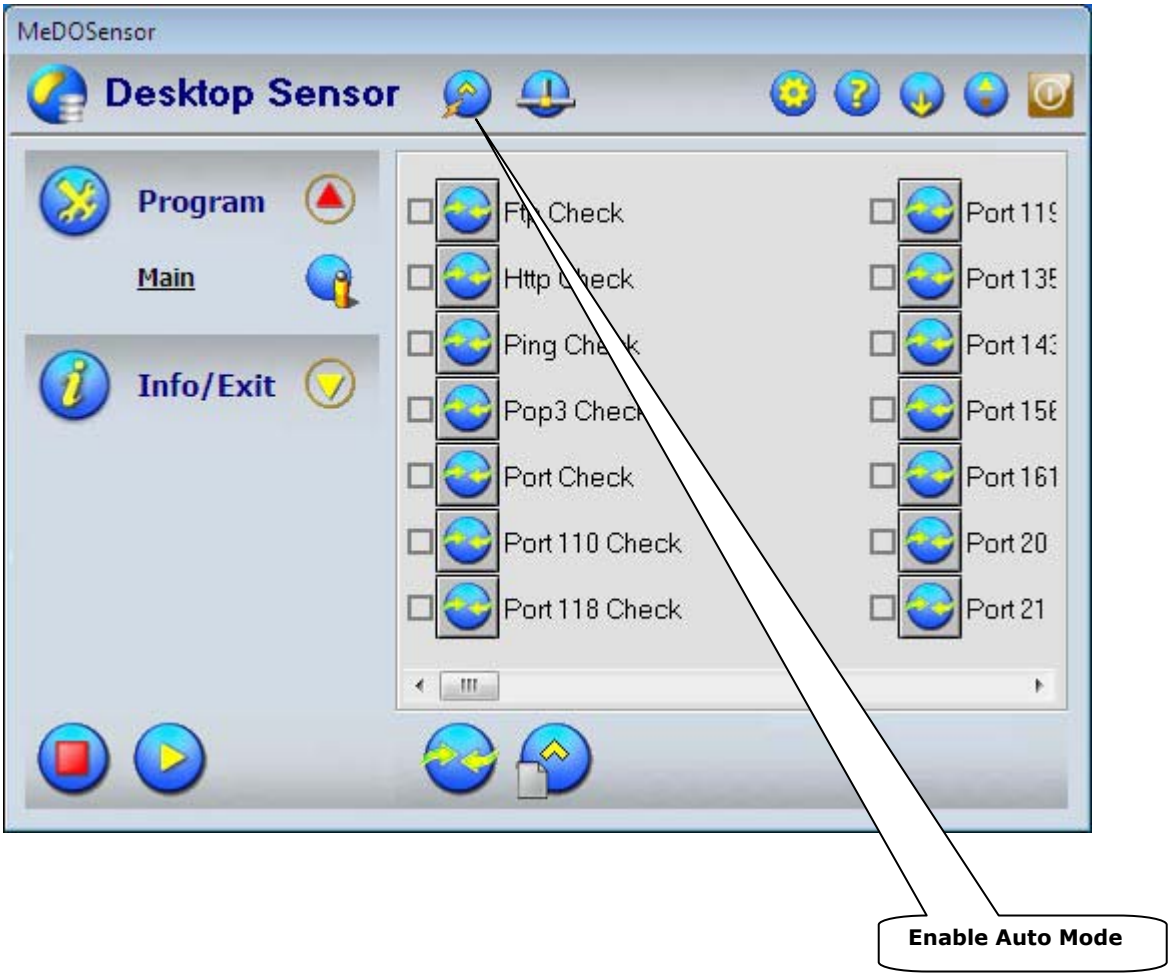
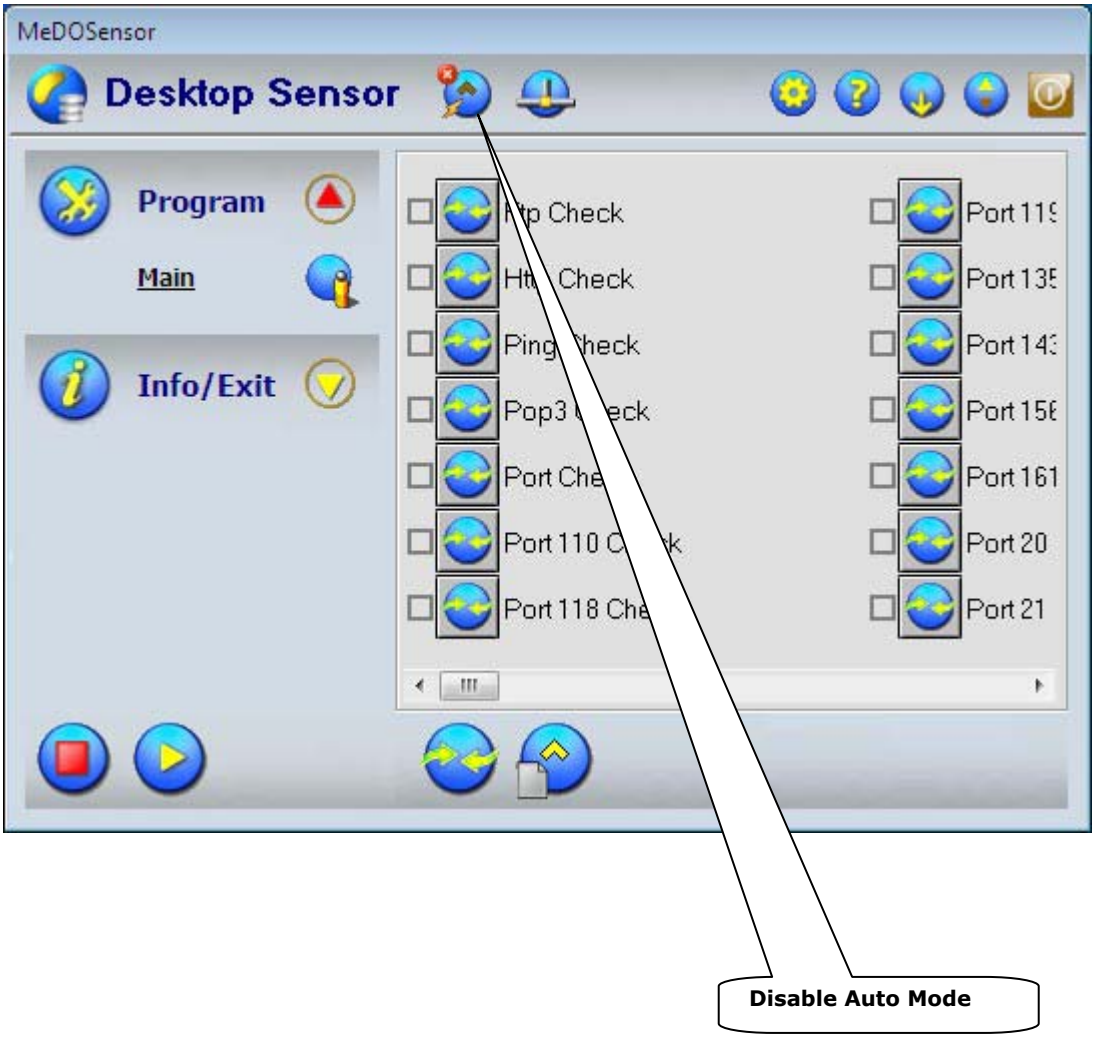


Figure 2.2.12 Disable Auto Mode



Sensor Network Trigger Communication

 : “Enable edit”:
Contains sub window and enable for edit (such as, Timer Sensor, Desktop Sensor, I/O Sensor, Remote Sensor …etc)

Any “Editable” type of sensor has a network setting that could directly trigger other Desktop Operation Sensor remotely via network.

Figure 2.2.13 Sensor

Figure 2.2.14 Network Trigger Setup – Sensor

Remote IP: Desktop Operation Sensor (Server) IP Address.
Port: Open ports for Sensor
Password: Password for Sensor

Figure 2.2.15 Network Server Setup – Desktop Operation Sensor

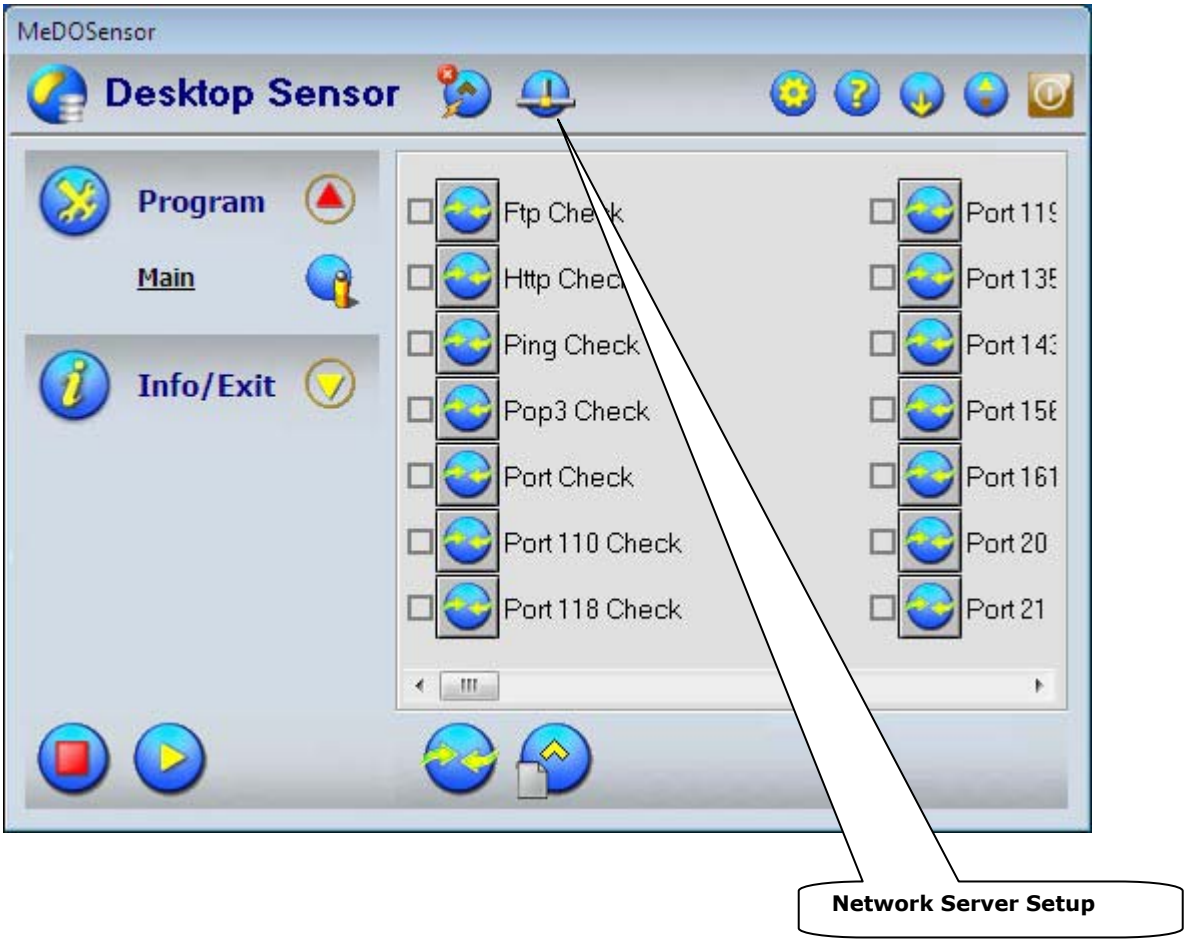
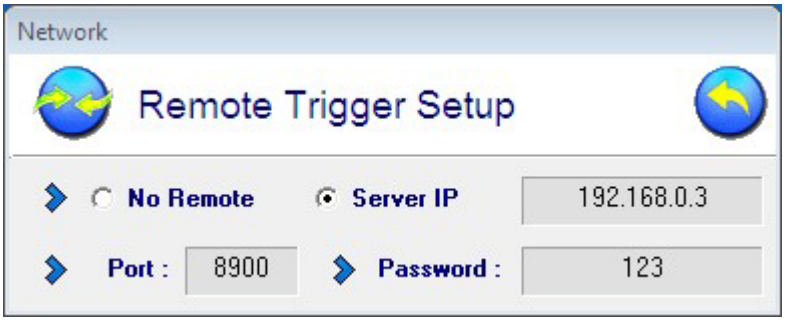


Figure 2.2.16 Network Server Setup – Desktop Operation Sensor



Server IP: Desktop Operation Sensor (Server) IP Address.
Port: Open ports for Sensor
Password: Password for Desktop Operation Sensor

Your First Multi-Tasking Sensor Automation

Creating an application in Desktop Operation Sensor is simple. How simple? For the answer, try out the first application that follows:

Step One: Select Sensor(s)

Select "**Sensor**" at Main-Sensor List section

Step Two: Setup Trigger List

Setup "**Trigger**" at Main-Trigger List section

Step Three: Start MEDOS

Start Desktop Operation Sensor program

To build a monitoring system for following multi-tasking condition:
Multi-tasking (Execute processes at the same time)

IF:
Detect mouse/keyboard movement,
Detect System Time changed,

Then:
RUN program "Demo1.exe".

(1) Sensor List: System Idle

Detect mouse/keyboard movement (when doing nothing on the system for 10 seconds).

(2) Sensor List: System Time changed

Detect if System Time changed.

(3) Trigger List:

Sensor Trigger: Sensor-Any

(4) RUN program

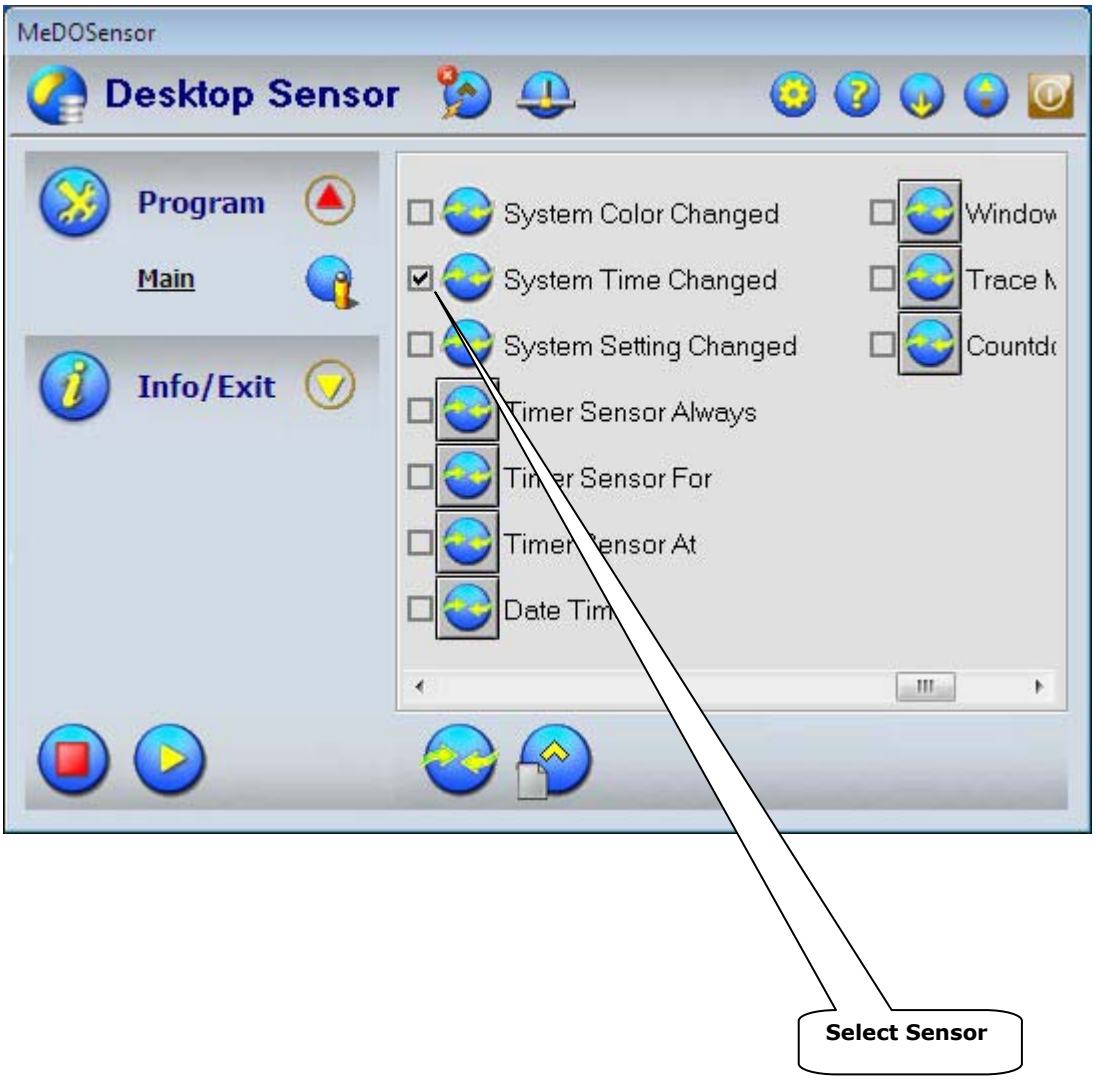
File name"Demo1.exe"

Select Sensor(s)

1. Selects sensor of.

    System Idle sensor
    System Time Changed sensor

Figure 2.3.1 The main Sensor List window.



2. Edits sensor of.

System Idle sensor

Figure 2.3.2 The System Idle sensor.

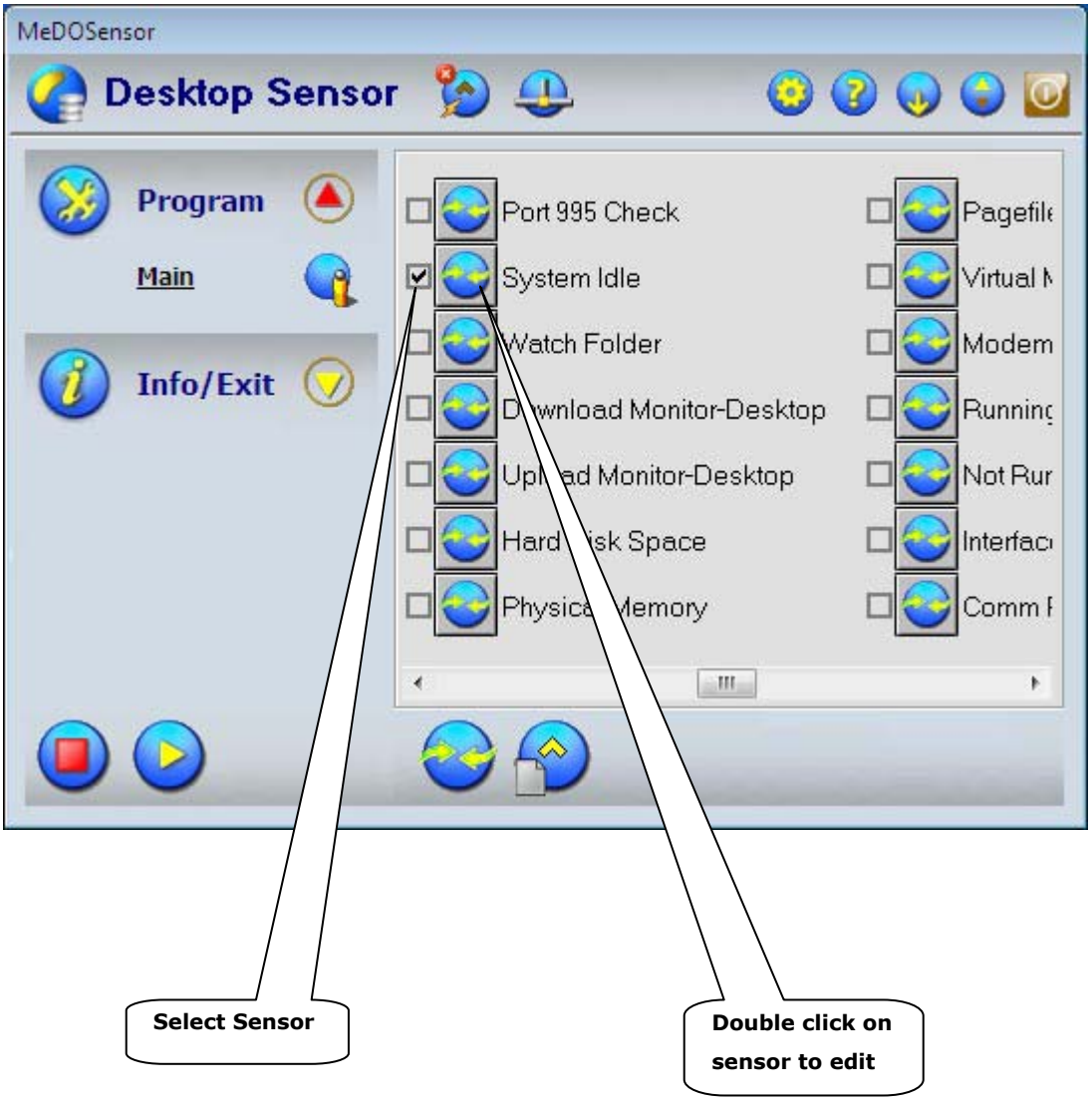


Figure 2.3.3 System Idle sensor

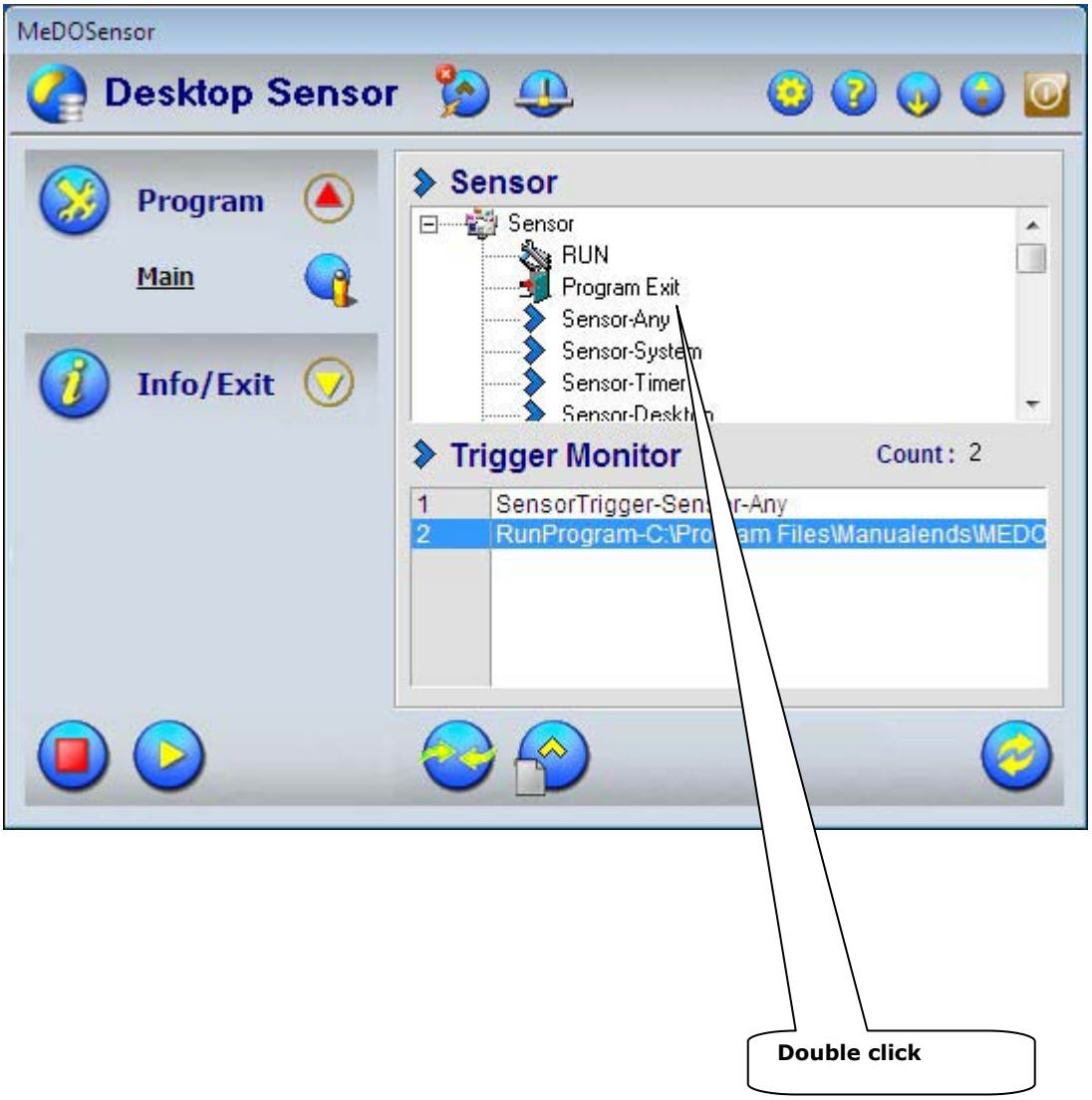
A System Idle sensor is a monitor tool for Mouse & Keyboard action. When doing nothing on the system, the computer is referred to as being in an “Idle” state. By using the idle status to check the system and then trigger any action.

Figure 2.3.4 Desktop Sensor - System Idle window.

Setup Trigger List

- Double Click on the icon of— **Sensor-Any**.

Figure 2.3.5 Main - Trigger List window.



- Double Click on the icon of— **RUN**.
- The Select Program File window will show up.
- Select ***"Demo1.exe"*** at MEDOS folder, and press OK.

Figure 2.3.6 The select program window.

Figure 2.3.7 Select "Demo1.exe" window

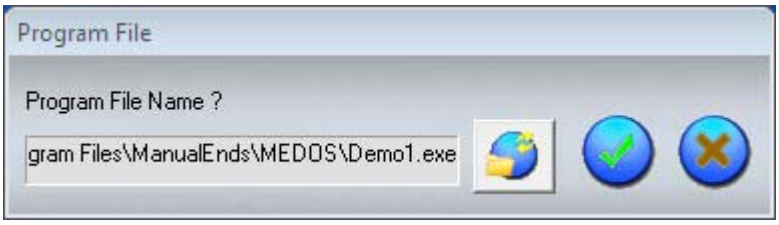


Figure 2.3.8 Trigger List – "Demo1.exe"

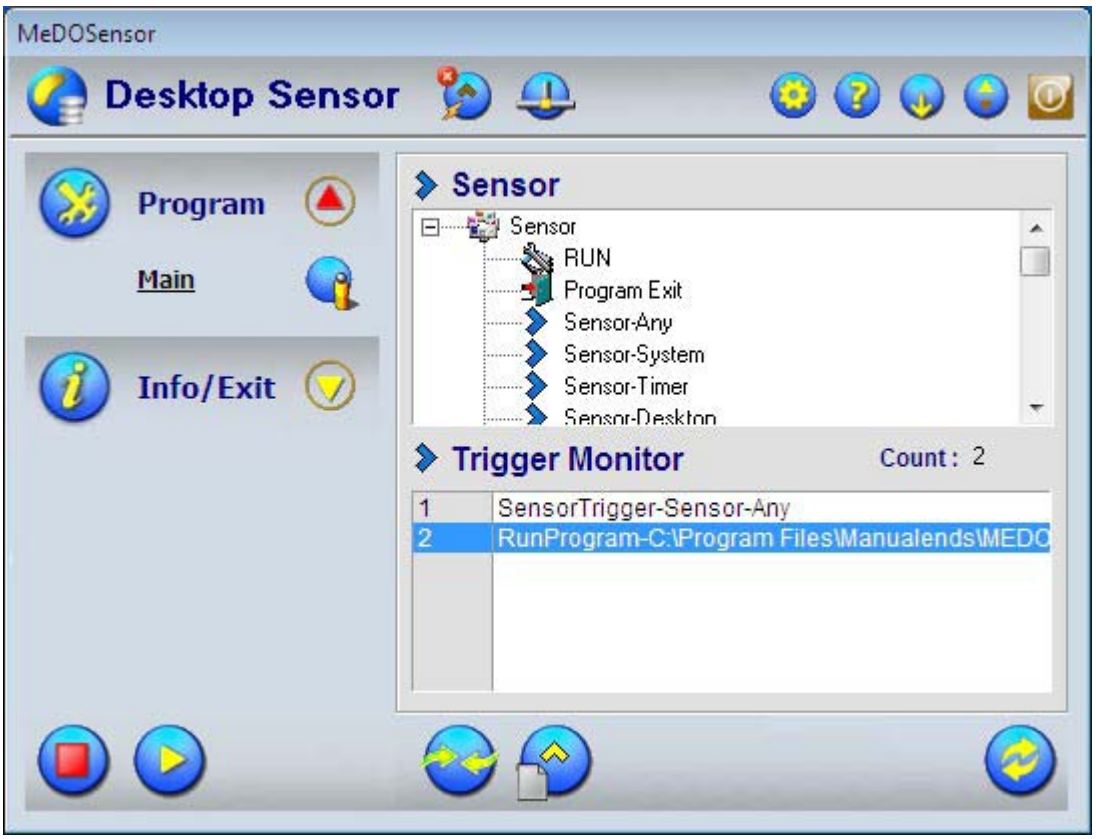
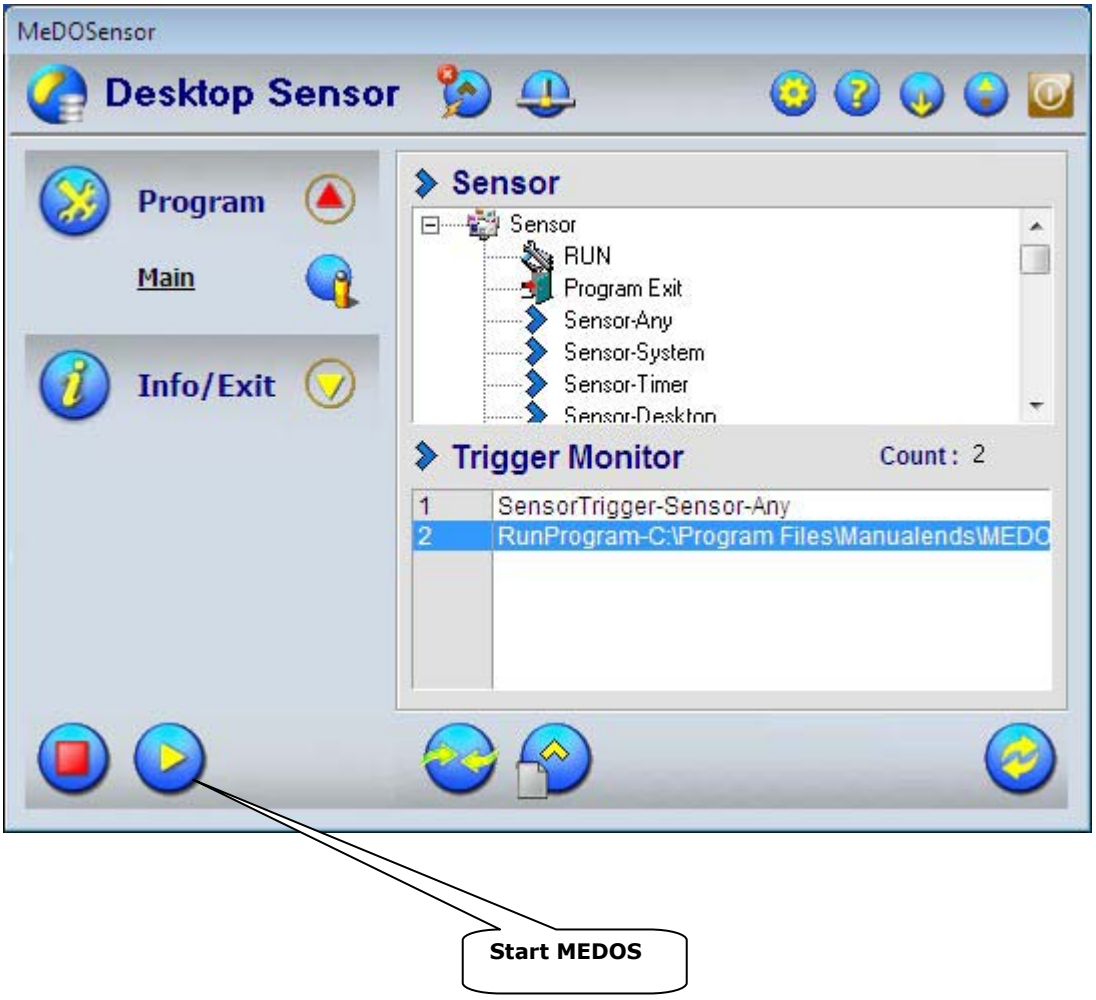


Figure 2.3.9 Start MEDOS



Start MEDOS Program

To run the application, click the RUN button. All running sensors will stay at System Tray.

Figure 2.3.10 Sensors reside in the system-tray.

Stopping the Application

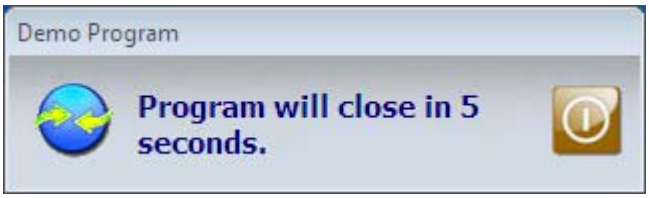
To stop the application during processing, click on Stop button.

Test

For example,

Do nothing and wait for 10 seconds, the Desktop Sensor “System Idle” will detect and trigger the action (RUN program file, “Demo1.exe”). (If you move mouse or press any key, the count down will restart).

Figure 2.3.11 Demo1.exe



Update Sensor

Desktop Operation Sensor software includes a directory of Plug & Play Sensors, located in the *Sensor* folder. ManualEnds Technology develops many Plug & Play sensors and they are available to you at no cost, are updated daily, and can be found in the Download Section of our Web site at www.manualends.com. ManualEnds Technology could design Customized Sensor under your specification with in 21 days. (No charge for design fee).

3. Where to Go from Here

This section describes how to uninstall your Desktop Operation Sensor software, and introduces you to the demonstration processes and additional features included with your IP Relay Server software. It also includes information to help you contact ManualEnds Technology to learn more about IP Relay Server and other ManualEnds Technology Automation products.

Uninstalling ManualEnds Desktop Operation Sensor Software

To uninstall your copy of Desktop Operation Sensor, please select

Start » Programs » MEDOS » Uninstall Desktop Operation Sensor

, and follow the on screen directions. When the uninstall process is completed, you **might** receive a message that some components could not be uninstalled. These files will be located in your IP Relay Server directory. You can delete these files manually if you choose.

Figure 4.1 Click on **Yes** button to start "Uninstall" Desktop Operation Sensor program

Feature on Desktop Operation Sensor

There are many more features in Desktop Operation Sensor than are addressed in this user guide. Some of the other major capabilities of Desktop Operation Sensor are the, sequential process management, and Artificial Intelligent. Other features such as advanced security across networks, and connectivity with other ManualEnds Technology software makes Desktop Operation Sensor very powerful software packages available on the market.

Where to learn more about ManualEnds Automation Solution (Millipede PC – Supercomputer)

For more information about Desktop Operation Sensor and other ManualEnds Technology automation, and supercomputer products, visit the ManualEnds Technology web site at http://www.manualends.com .

You can also e-mail your questions to support@manualends.com.

Your local ManualEnds Technology representative can supply information tailored to your needs. If you are not already in contact with a representative for your area, contact ManualEnds Technology at support@manualends.com to have your questions answered.

Thank you for using Desktop Operation Sensor.

Worldwide Technical Support and Product Information

www.manualends.com

A. Technical Support Resources

This appendix describes the comprehensive resources available to you in the Technical Support section of the ManualEnds Technology Web site and provides technical support telephone numbers for you to use if you have trouble connecting to our Web site or if you do not have internet access.

ManualEnds Web Support

To provide you with immediate answers and solutions 24 hours a day, 365 days a year, ManualEnds Technology maintains extensive online technical support resources. They are available to you at no cost, are updated daily, and can be found in the Technical Support section of our Web site at

www.manualends.com

Software-Related Resources

• **Example Programs Database**—a database with numerous, non-shipping example programs for ManualEnds Technology programming environments.

• **Tested Software Librar**y—a Desktop Operation Sensor report lists with tested results of other application software.

Hardware-Related Resources

• **Application Database**—a database with application note for ManualEnds Technology automation and supercomputer systems.

Online Problem-Solving and Diagnostic Resources

• **Troubleshooting**—step-by-step guides lead you through common problems and answer questions about our entire product line.

• **Product Help**—a comprehensive, searchable library of the latest editions of ManualEnds Technology hardware and software product helps.

• **Application Notes**—a library addressing specific topics such as windows environment, developing your own automation solution, and applications between platforms and operating systems.

Worldwide Support

You can access these Web sites from www.manualends.com. If you have trouble connecting to our Web site, please contact the source from which you purchased your ManualEnds Technology product(s) to obtain support.

B. Error Message

This appendix describes the Error Message and the solution during Installation, and Uninstall program. If any unknown Error Message appears, please inform ManualEnds Technology imminently.