

ATS System Monitoring Software

ATS

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Chapter 1 Installation and Setup

1.1. Requirements

- Operating Environment: Windows XP/Vista/ 7/ 8/ 10.
- CPU 2G dual core or higher 1GB RAM or higher, 20 GB HDD space.
- Peripherals: COM port, USB.
- Microsoft .NET Framework 3.5 and above.

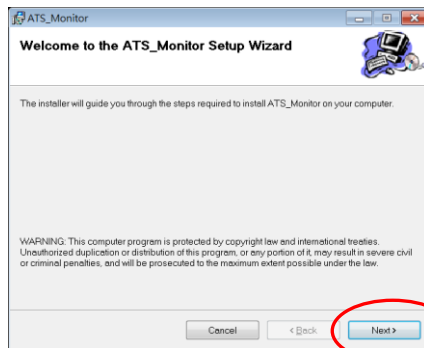
1.2. Installation

1.2.1 Turn on the ATS power supply and use the data cable to connect the ATS and computer.

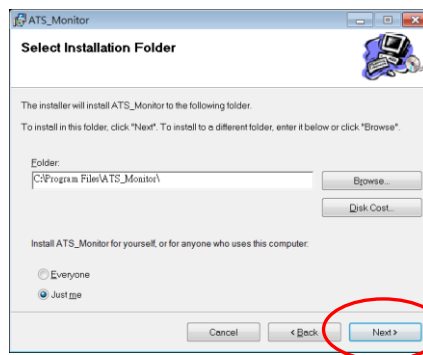
1.2.2 Insert CD-ROM into the CD drive and launch Setup.msi



1.2.3 Click on "Next" to continue.

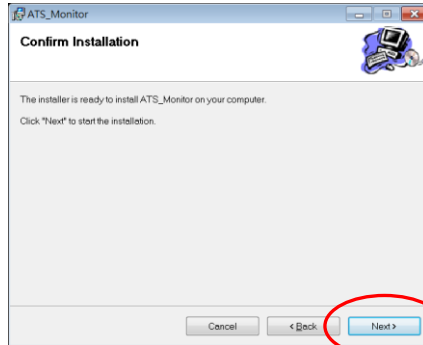


1.2.4 Click on "Next" to continue.

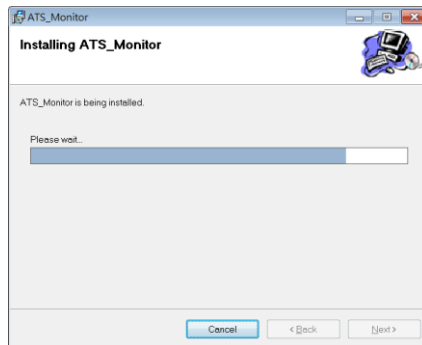


- "Browse button": Change the installation folder.
- "Disk Cost button": Change the destination drive.
- "Everyone": Install for all users on this computer.
- "Just me": Install only for the current user.

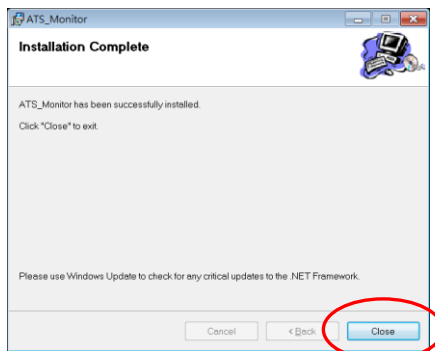
1.2.5 Click on "Next" to continue.



1.2.6 Wait for the installation process to finish

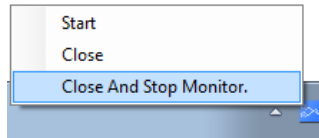


1.2.7 Click on "Close" to finish the installation process.

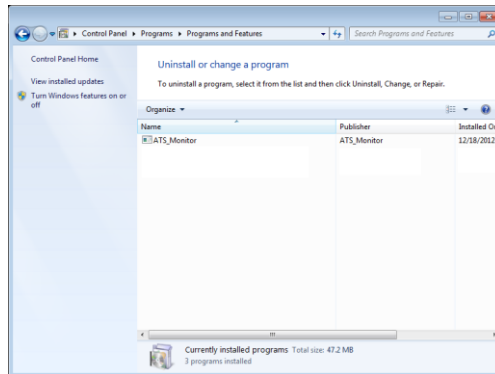


1.3. Uninstaller

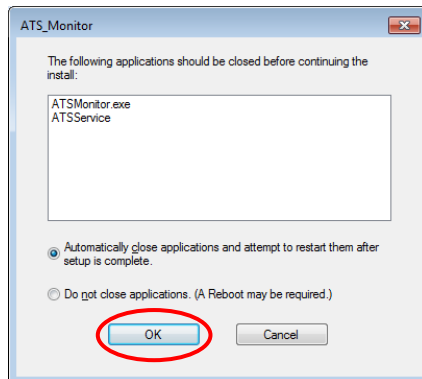
1.3.1 Please close the program by right clicking on the "Taskbar" and select "Close and stop Monitor.Close".



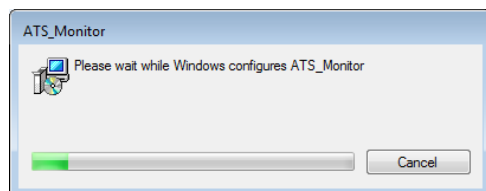
1.3.2 At the "Control Panel", go to "Add/Remove program" then double clicking on "ATS_Monitor".



1.3.3 When promoted to confirm the automatic closing of applications, please select "OK" to continue.



1.3.4 When the program finishes the uninstallation is complete.



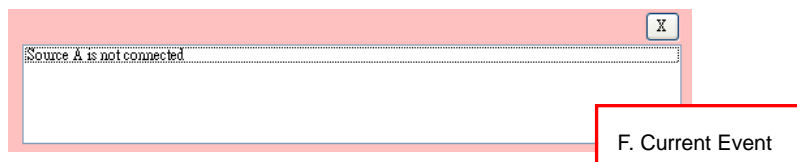
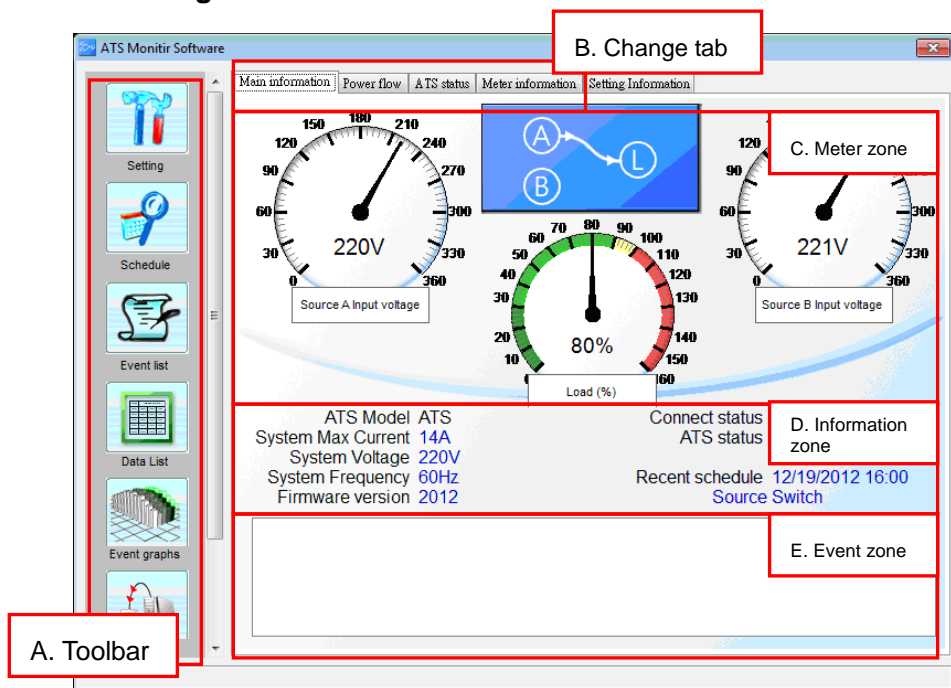
Chapter 2 Functions

2.1. Real-time surveillance screen

The real-time surveillance screen displays the internal data of the ATS in real-time on the screen in different ways. ATS information has therefore been divided into five tabs to make them easier to manage: "Main information", "Power flow", "Argument", "Meter information" and "Setting Information".





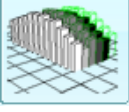

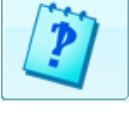
ATS Monitor also supports daisy-chaining. When two or more machines are being monitored, the screen automatically changes to the multi-machine surveillance screen to put all surveillance information within easy reach.

2.2. Single-machine real-time surveillance screen



A. Toolbar:

Click on the icon to open the selected function. The icon functions are described below:










Icon	Function	Description	Remarks
	System Setup	Set the software parameters and connection settings.	
	Schedule	Schedule tasks.	
	Event List	View the log of past events.	
	Data List	Inspect every piece of data monitored by the ATS Monitor.	
	Event Graphs	Display surveillance data in a graphical format.	
	Control ATS	Control ATS functions.	
	About	Software version	



B. Change tab:

Switch between different surveillance tabs and present the ATS surveillance information in different formats so the ATS status can be seen at a glance.

C. Meter Zone:

Use the Power flow chart and meter to display ATS data. The power flow graph icons are shown in the following table

Icon	Function	Description	Remarks
	Input A	Source A input is normal.	
	Input A	Source A input icon shows that there is a problem with Input A. Check the "Current Event" window to view the problem.	
	Input B	Source B input is normal.	
	Input B	Source B input shows that there is a problem with Input B. Check the "Current Event" window to view the problem.	
	Output	Source B output is normal.	
	Output	Power output icon shows that there is a problem with the source output. Check the "Current Event" window to view the problem.	
	Power flow	Shows power is currently provided by Source B Input.	
	Power flow	Shows power is currently provided by Source A Input.	
	Communications interrupted	Communications is interrupted and machine status is currently not known.	

Icon	Function	Description	Remarks
	Load	Display ATS load	
	Meter Information	<p>Selected data is displayed in a power meter format. "Left click" on meter to select data to monitor.</p> <p>When the meter text is red this means there is a problem with the monitor readings.</p>	Must be connected to change change information.

D. Information Zone:

- ATS status: Shows the ATS model.
- Maximum system current: Shows the maximum current rating of the system.
- System voltage: Shows the voltage rating of the system.
- System frequency: Shows the frequency rating of the system.
- Firmware version: Shows the current firmware version.
- Connection status: Shows whether there is a connection to the machine.
- ATS health: Displays the overall condition of the ATS.
- Recent Schedule: The last scheduled event and time.

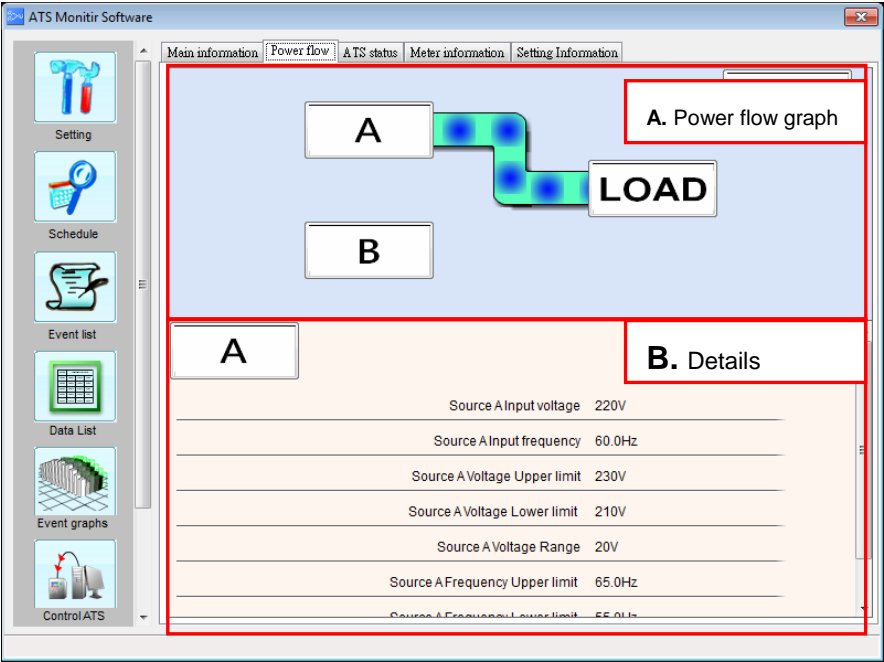
E. Event Zone:

Records time, machine, event or past event. Shows a list of the latest events. For a historical record, go to the "Event List" function to view the list of past events.

F. Current Event Zone:


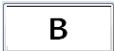



Shows the current event. This window only pops up when an event occurs. Under normal conditions, ATS automatically hides this window.

2.3. Power flow monitoring screen



A. Power flow graph:

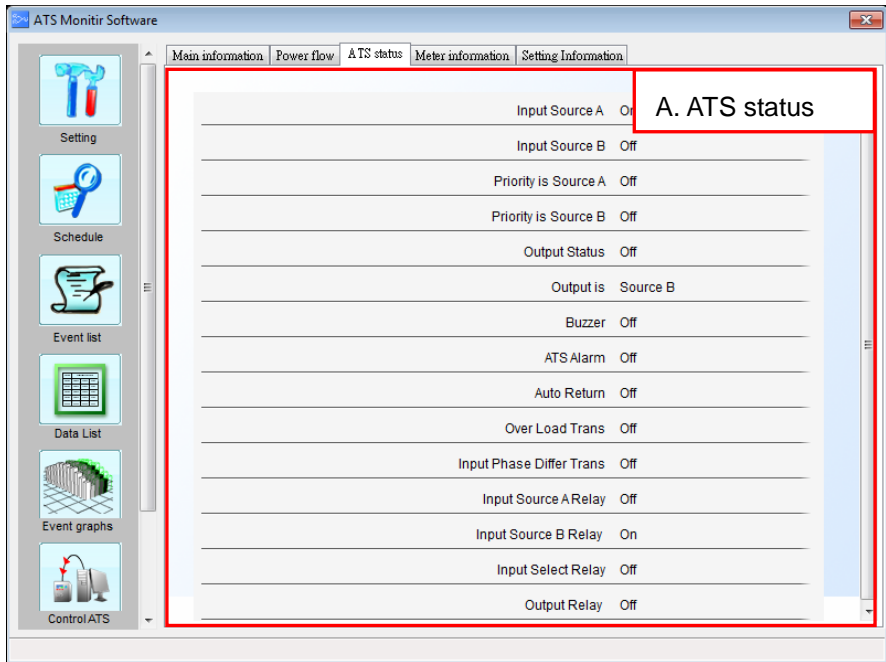
Shows the current ATS operating mode. The icons are described below:

Icon	Function	Description	Remarks
	Input A	<p>The picture shows the power input. Click on the button to show all information about Source A Input.</p> <p>When the displayed text is red this means there is a problem with the monitor readings.</p>	Display the data by machine.
	Input B	<p>The picture shows the power input. Click on the button to show all information about Source B Input.</p> <p>When the displayed text is red this means there is a problem with the monitor readings.</p>	Display the data by machine.
	Output	<p>The picture shows the power output. Click on the button to show all information about all source outputs.</p> <p>When the displayed text is red this means there is a problem with the monitor readings.</p>	Display the data by machine.
	ATS Internal Data	<p>Icon indicates ATS internal data. Click on the button to display all internal data about ATS.</p> <p>When the displayed text is red this means there is a problem with the monitor readings.</p>	Display the data by machine.
	Current Flow Graph	Shows the direction of current flow.	

B. Details

Display the details of the selected component in the "Power Flow Graph". The real-time monitoring data listed will depend on the exact model.

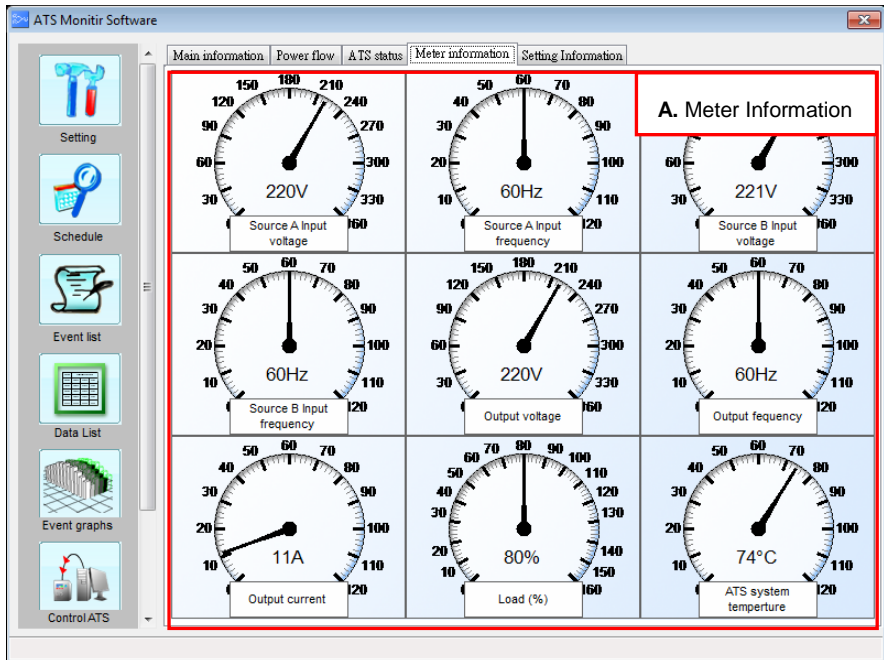
2.4. ATS status screen



A. ATS status

Shows the ATS status within the machine. The machine must be connected in order to extract the information from the machine. If machine is not connected then only a blank screen is shown.

2.5. Meter Information

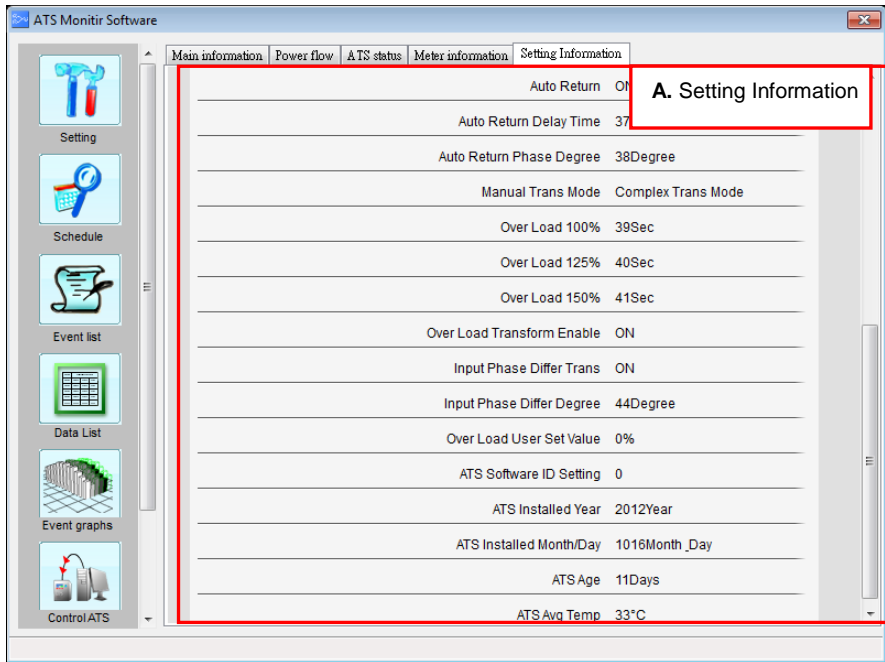


A. Meter Information

Display the data using power meters. "Left click" on each meter to select the data to monitor. The data listed will depend on the actual model.

When the meter text is red this means there is a problem with the monitor readings.

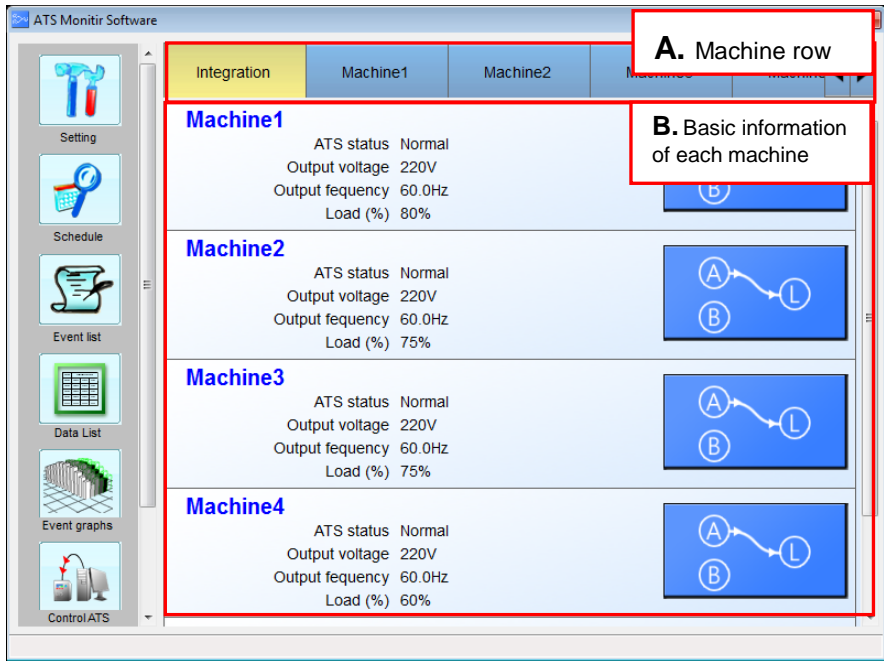
2.6. Setting Information



A. Setting Information

Shows all of the internal machine settings. As the information must be extracted from the machine, it is only displayed after the machine is connected. If not connected then this screen is blank.


2.7. Multi-machine real-time surveillance screen



A. Machine row

Used for switching between the "Integration" tab and individual machine information tabs. The first button is "Integration" shows basic information from each machine as shown in B. Clicking on individual machine names switches to single machine information as shown in 2.1.

If the number of machines is larger than the tab can display, the left mouse button can be used to "click and drag" the window. Clicking

on  can also be used to switch tabs.

B. Basic information of each machine

The basic information of each machine consists of six parts:

- Machine name: Displays the name of the machine
- ATS health: Displays the overall condition of the ATS.

- Output voltage: Displays the output voltage.
- Output frequency: Displays the output frequency.
- Load: Displays the system load.
- Power graph: Same as for single-machine. Please see 2.2 Zone C.

Chapter 3 Settings

3.1. Machine Setting

The screenshot shows a 'Setting' dialog box with three tabs: 'Machine Setting', 'Mail Setting', and 'SMS Setting'. The 'Machine Setting' tab is active. It is divided into three sections highlighted by red boxes and labeled A, B, and C.

A. Connect Setting: This section contains a 'Connect Setting' label and a 'Com port' dropdown menu currently set to 'USB'.

B. Machine count: This section contains a 'Machine count' dropdown menu set to '1'. Below it is a table with five rows, each containing a 'Machine name' text box and a 'Machine ID number' dropdown menu. The names are 'Machine1' through 'Machine5', and the ID numbers are '2' through '5'.

C. Other Setting: This section contains a 'Data Save time' dropdown menu set to '1' with a 'month' unit, a 'Language' dropdown menu set to 'English', and an 'Each data interval' dropdown menu set to '10' with a 'Second' unit.

At the bottom of the dialog box are 'OK' and 'Cancel' buttons.

A. Connect Setting

ATS Monitor is divided into "RS232" and "USB".

- When RS232 or RS485 communications is used, select the COM PORT number directly.
- When USB is used, set COM PORT to "USB" to use USB connection.

B. Machine count

- "Monitor count": Select the number of ATS to monitor. The maximum is 64 units.
- "Machine name": Set the machine name
- "Machine ID number": This does not need to be set if there is only one machine. If there are multiple linked machines then the "Setting Software" must be used to set all machines to different ID numbers to avoid signal conflicts. The corresponding ID numbers must also be set here.

C. Other Setting

- "Data Save time": The machine related information will be saved

- in the computer. This sets how long the data will be retained.
- "Each data interval": The interval at which machines store data on the computer.
 - "Language": Select the language of the software.

3.2. MAIL Setting

When ATS Monitor detects a problem with ATS it can send an e-mail to the user using the MAIL information and Event setting below.

The screenshot shows a 'Setting' dialog box with three tabs: 'Machine Setting', 'Mail Setting', and 'SMS Setting'. The 'Mail Setting' tab is active and contains the 'Mail Information' section. This section includes fields for 'Mail server', 'Mail port' (set to 25), 'Mail ID', 'Mail Password', 'sender mail', and 'mail recipients'. There is a 'Send test' button and a note that 'Multiple mails are separated with Comma.'. A red box labeled 'A. Mail information' highlights this section. Below it is the 'Event setting' section, which contains a table with 'Type' and 'Event' columns. A red box labeled 'B. Event Setting' highlights this section. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Type	Event

A. Mail information

- "Mail server": Please provide the SMTP server.
- "Mail port": The SMTP server port.
- "Enable SSL": Whether the SMTP server uses SSL encryption.
- "MAIL ID": Mail account.
- "MAIL Password": Mail password.
- "Sender Mail": The complete e-mail address of the sender.
- "Mail Recipients": The complete e-mail address of the recipient. If there are multiple recipients use “,” as the separator.

B. Event Setting

- "Type": Displays the event type.
- "Event": Displays the event name.
- "Send message or not": Check to send, leave unchecked to not send.

3.3. SMS Setting

When the ATS Monitor detects a problem with the ATS a SMS message can be sent to the user using the SMS information and Event setting below. Sending a SMS will incur additional fees.

<https://www.12voip.com/>

<https://www.freecall.com/>

The two service providers are offered. Please log into the websites to view the instructions, apply for an account and make pre-payment.

The screenshot shows a 'Setting' window with two tabs: 'Machine Setting' and 'SMS Setting'. The 'SMS Setting' tab is active. It is divided into two main sections: 'A. SMS information' and 'B. Event Setting'.

A. SMS information

SMS Information

SMS server:

SMS ID:

SMS password:

Phone number:

use , to split mail address

B. Event Setting

Event setting

Type	Event	not
Warning	ATS Alarm	<input type="checkbox"/>
Warning	Source A is not connected	<input type="checkbox"/>
Warning	Source B is not connected	<input type="checkbox"/>
Warning	Source A voltage is abnormal	<input type="checkbox"/>
Warning	Source B voltage is abnormal	<input type="checkbox"/>
Warning	Source A frequency is abnormal	<input type="checkbox"/>
Warning	Source B frequency is abnormal	<input type="checkbox"/>
Warning	Source A voltage & frequency is abnormal	<input type="checkbox"/>

A. SMS information

- "SMS Server": Select the SMS messaging service provider.
- "SMS account": SMS account.
- "SMS password": SMS password.
- "Phone number: The international number of the recipient. If there are multiple recipients, please use "," as the separator.

B. Event Setting

- "Type": Displays the event type.
- "Event": Displays the event name.
- "Send message or not": Check to send, leave unchecked to not send.

Chapter 4 Schedule


4.1. View Schedule

The screenshot shows the 'Schedule' application window. The main area is a calendar grid for December 2012. The days of the week are listed at the top: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. The dates 1 through 31 are arranged in a grid. A yellow bar at the bottom of the calendar indicates the current date: Thursday, December 20, 2012. A red box labeled 'D' points to a small icon on the 19th of December, with the text 'D Icon showing event on the day'. A red box labeled 'B' points to the date '21' on the 21st of December, with the text 'B Edit Date'. A red box labeled 'C' points to the year '2012' in the bottom right corner of the calendar, with the text 'C Select Calendar Month'. A red box labeled 'A' points to the yellow bar at the bottom of the calendar, with the text 'A Today's Date'.

Below the calendar is a table showing the details of the selected event. The table has four columns: Date and time, Machine Name, Event, and Repeat. The first row shows the event details for 12/21/2012 12:00.

Date and time	Machine Name	Event	Repeat
12/21/2012 12:00	Reserve	Source Switch	Only one

- A. Today's Date:** Yellow bracket indicates today's date. Starting this function immediately opens the Event List window for today.
- B. Edit Date:** Select a date to edit to bring up the Event List window for that day.
- C. Select Calendar Month:** Select the year and month of the event list browser.
- D. Icon showing event on the day:** Mouse over for a brief summary containing the following info.

Icon	Function	Remarks
	Switch input	

4.2. Add Schedule

Select a date to edit then click on "Add" in the Event List window to open the Add window as shown below:

The image shows two screenshots from a software application. The top screenshot is the 'Event List' window, which has a title bar with the date '12/21/2012'. It contains two buttons at the top: a green '+' button labeled 'Add' and a red '-' button labeled 'Remove'. Below these buttons is a table with four columns: 'Date and time', 'Machine Name', 'Event', and 'Repeat'. The table has one row of data: '12/21/2012 12:00', 'Reserve', 'Source Switch.', and 'Only one'. A red arrow points from the 'Add' button to the 'ScheduleAddForm' dialog box shown in the bottom screenshot. The 'ScheduleAddForm' dialog box has a title bar with the text 'ScheduleAddForm'. It contains several fields: 'Date' with the value 'Thursday, December 20, 2012', 'Time' with a dropdown set to '12' and a spinner set to '00', 'Event' with a dropdown set to 'Source Switch', 'Repeat' with a dropdown set to 'Only one', and 'Machine Name' with a dropdown set to 'All machine'. There is a green '+' button labeled 'Add' at the bottom right of the dialog box.

Date and time	Machine Name	Event	Repeat
12/21/2012 12:00	Reserve	Source Switch.	Only one

ScheduleAddForm

Date Thursday, December 20, 2012

Time 12 : 00

Event Source Switch

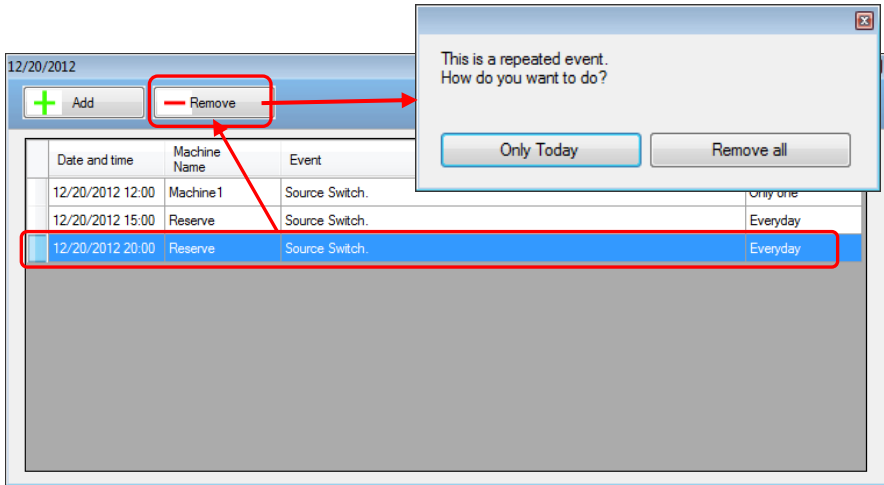
Repeat Only one

Machine Name All machine

+ Add

- "Time": Set the execute time (24 hour time).
- "Event": Set the test event.
- "Repeat" can be set to only one day, every day, every week or every month.
- "Machine name" can be set to all machines or any particular machine
- "Add": Adds event to the schedule.

4.3. Remove Schedule

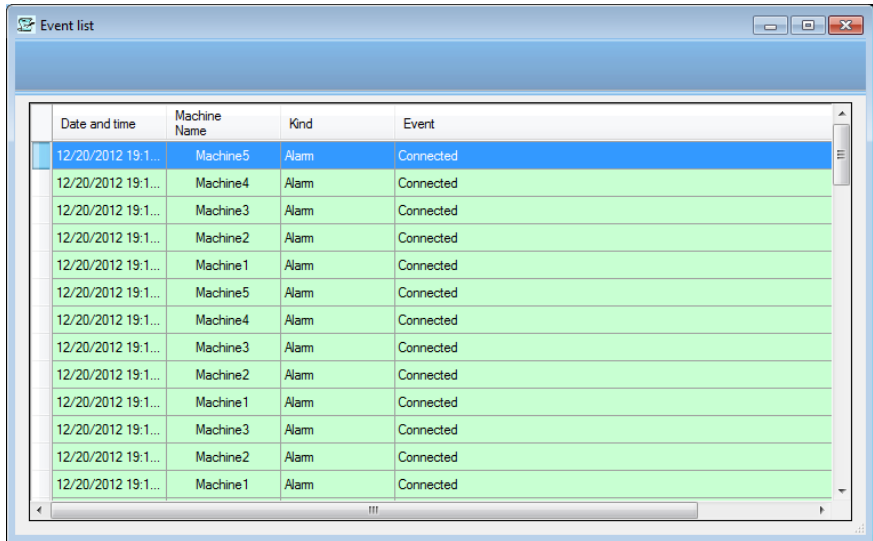


Click to select event to remove. If the event to remove is a one-time event it will be deleted directly. If the event is a repeated event then the Delete window appears to give the available deletion options.

- "Remove all": Delete the event and all of its duplicates.
- "Only Today": Delete only the event for that day and none of the other repeated events.

Chapter 5 Event List

5.1. View Event



The screenshot shows a window titled "Event list" with a table containing event data. The table has four columns: "Date and time", "Machine Name", "Kind", and "Event". The first row is highlighted in blue, and the subsequent rows are highlighted in green. The data indicates that all events are "Connected" and occurred on "12/20/2012 19:1...".

Date and time	Machine Name	Kind	Event
12/20/2012 19:1...	Machine5	Alarm	Connected
12/20/2012 19:1...	Machine4	Alarm	Connected
12/20/2012 19:1...	Machine3	Alarm	Connected
12/20/2012 19:1...	Machine2	Alarm	Connected
12/20/2012 19:1...	Machine1	Alarm	Connected
12/20/2012 19:1...	Machine5	Alarm	Connected
12/20/2012 19:1...	Machine4	Alarm	Connected
12/20/2012 19:1...	Machine3	Alarm	Connected
12/20/2012 19:1...	Machine2	Alarm	Connected
12/20/2012 19:1...	Machine1	Alarm	Connected
12/20/2012 19:1...	Machine3	Alarm	Connected
12/20/2012 19:1...	Machine2	Alarm	Connected
12/20/2012 19:1...	Machine1	Alarm	Connected

- "Date and time": Displays the date and time of the event. Click on the headings to display in ascending or descending order.
- "Machine name": Displays the machine where the event occurred. Click on the headings to display in ascending or descending order. This column is not shown if only one machine is being monitored.
- "Kind": Shows the event is an "Alarm" or "Warning".
- "Event": Displays the event name.
- Red field means that the event occurred and green field means that the event recovered normally.

Chapter 6 Data List

6.1. View record

A. Select tool

Date and time	Source A Input voltage	Source A Input frequency	Source B Input voltage	Source B Input frequency	Output voltage
00:00:00	220	60	221	60	220
00:00:00	220	60	221	60	220
00:00:00	220	60	221	60	220
00:00:10	220	60	221	60	220
00:00:10	220	60	221	60	220
00:00:10	220	60	221	60	220
00:00:20	220	60	221	60	220
00:00:20	220	60	221	60	220
00:00:20	220	60	221	60	220
00:00:30	220	60	221	60	220
00:00:30	220	60	221	60	220
00:00:30	220	60	221	60	220
00:00:40	220	60	221	60	220

B. Data Display Zone

A. Select tool

Use this tool zone to select the date and machine for the curve.

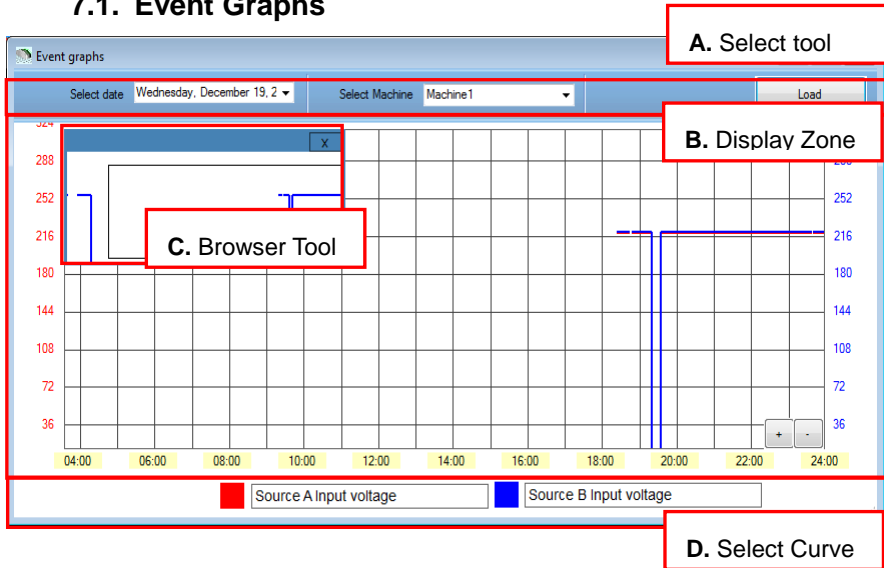
- "Select date": Select the date to view. Each selection shows the data for one day.
- "Select Machine": Select the machine to view.
- "Load": Load the information for the selected date and machine.
- Attention: The selected machine must be connected in order to load the machine data for viewing.

B. Data Display Zone

- "Time": Shows the time of the records on the day. Click on heading to sort.
- "Other Fields": Different fields and their values are shown based on the actual machine model.

Chapter 7 Event Graphs

7.1. Event Graphs



A. Select tool

Use this tool zone to select the date and machine for the curve.

- "Select date": Select the date to view. Each selection shows the data for one day.
- "Select Machine": Select the machine to view.
- "Load": Load the information for the selected date and machine. Different machine models means the data intervals will be different as well. The information can only be loaded when the machine is connected or it will be unreadable.

B. Display Zone

The selected curve is displayed in this zone.

- Displays the event graph curve.
- Use the "right mouse button" to click and drag upwards to zoom in on the curve.
- Use the "right mouse button" to click and drag downwards to zoom out on the curve.
- Use the "left mouse button" to click and drag left to move along the curve.
- The coordinate markings on the left side of the Display Zone correspond to the red coordinate values.
- The coordinate markings on the right side of the Display Zone

correspond to the blue coordinate values.

C. Browser Tool

When zooming, the Browser Tool shows the current viewing area and a miniature view of the entire graph.

- Shows a miniature view of the entire day's data.
- While zoomed in, click and drag with the "left mouse button" to move the viewing area.

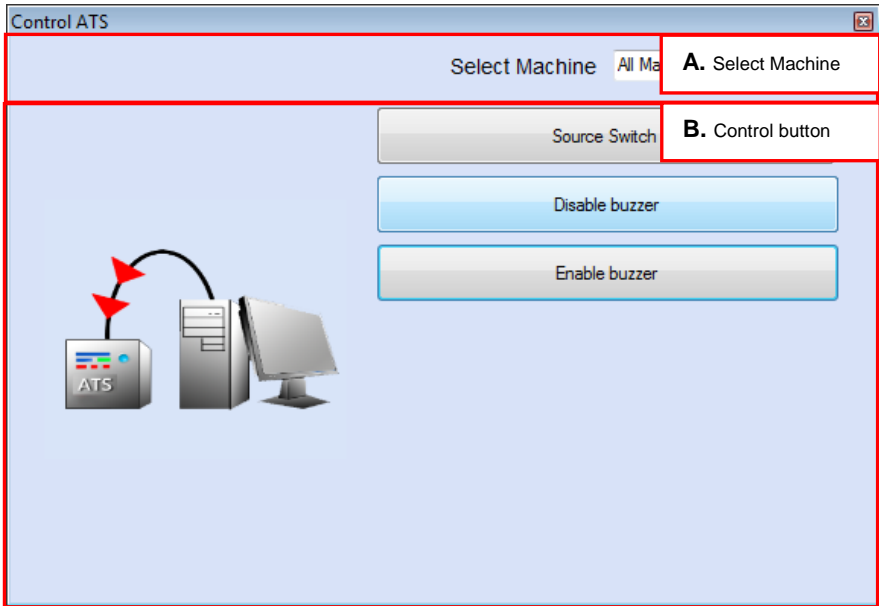
D. Select Curve

Event Graphs can display either a blue or red curve. The red curves corresponds to the red coordinates on the left while the blue curve corresponds to the coordinates on the right. This tool is used to switch between the curves for different data.

- Shows the data represented by the red and blue lines.
- Use the "left mouse button" to select different curves.

Chapter 8 Control ATS

8.1. Control ATS



A. Select Machine

- "Select Machine": Can select all machines or a single machine. If only machine is connected then this option is not shown.

B. Control button

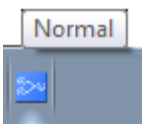


- "Source Switch": Use the software to order ATS to switch to the other power source.
- "Disable buzzer": Transmit command to ATS to turn off buzzer.
- "Enable buzzer": Transmit command to ATS to turn ofn buzzer.

Chapter 9 Toolbar Icons

9.1. Description of Toolbar Icon

Mouse over an icon for a basic description. of that icon. "Double left click" on an icon to open the monitor window. "Right mouse click" on icon to bring up the three options shown below:

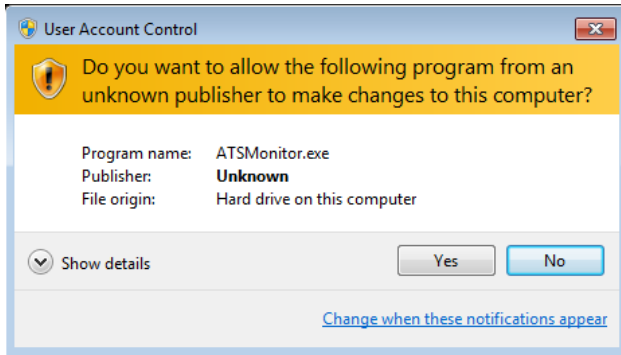
- "Start": Same as the "double click" icon. Opens the monitor window immediately.
- "Close": Close the monitor window and stop the toolbar icon but continue to monitor.
- "Close and Stop Monitoring": Close the monitor window, stop the toolbar icon and stop the background communications service. All monitoring functions are halted and no alarms/warnings will be detected. No data will be recorded either until the machine is next rebooted or the program restarted.
- Icon description:

Icon	Function	Description	Remarks
	Normal	ATS working normally	
	Alarm	ATS has encountered an alarm	
	Warning	ATS has encountered a warning	

Chapter 10 Windows Warning

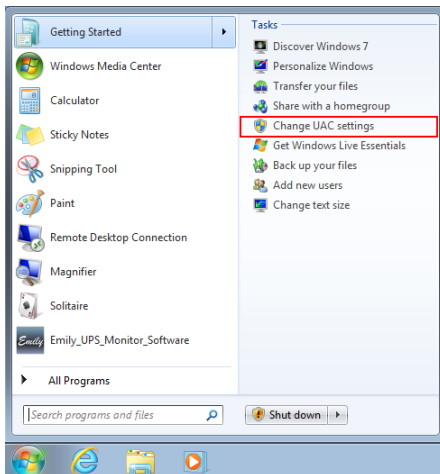
10.1. Description of Toolbar Icon

It is normal for the ATSMonitor.exe warning to appear when the computer or program is started. The software requires greater privileges to execute shutdown and launch services. Please click on "Yes" to confirm this action. If you do not want this window to appear every time, go to 10.2 to turn off UAC.

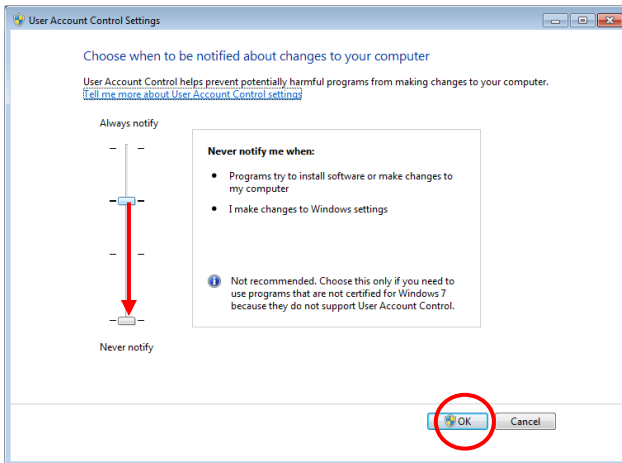


10.2. Turn off UAC

10.2.1 Go to "Start" and then "Change UAC settings"



10.2.2 Drag the settings bar to the bottom then click on "OK"



10.2.3 Restart for the changes to take effect.