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Creating a Soft-GRAF HMI and a Schedule-Control application for an ISaGRAF PAC.

Introduction:

For the purposes of this FAQ, a single ISaGRAF WinCE PAC (Programmable Automation Controller, e.g., VP-25W7) is used with a single I-87057W DO module inserted. In addition, "Soft-GRAF Studio" is used to create and edit four HMI pages (e.g., Home, Lawn, Shopping Mall and Factory), and then the "Schedule-Control Utility" is used to configure the required scheduling times for each DO device.

For more details regarding the products described above, go to the following websites:

ISaGRAF

[ICP DAS Website](#) > Product > [Solutions](#) > [Soft PLC, ISaGRAF & Soft-GRAF HMI](#) > [ISaGRAF](#)

Soft-GRAF Studio

[ICP DAS Website](#) > Product > [Solutions](#) > [Soft PLC, ISaGRAF & Soft-GRAF HMI](#) > [Soft-GRAF HMI](#)

I-87K I/O Modules

[ICP DAS Website](#) > Product > [Solutions](#) > [Remote I/O Modules/Units](#) > [I-87K I/O Modules](#)

1.1. Download the Driver, Demo Programs and Related Documents

Schedule-Control is supported by the following ISaGRAF driver versions:

| ISaGRAF PAC | WinCE-based PAC | Driver Version |
|-------------|-------------------|------------------|
| XPAC-Atom | XP-8xx7-Atom-CE6 | V. 1.02 or later |
| XPAC-CE6 | XP-8xx7-CE6 | V. 1.41 or later |
| WinPAC | WP-8xx7 | V. 1.61 or later |
| | WP-5xx7 | V. 1.07 or later |
| ViewPAC | VP-2xW7 / VP-4xx7 | V. 1.53 or later |

Download the ISaGRAF Driver:

If the version number of your driver is earlier than the one indicated, go to www.icpdas.com > [Soft PLC ISaGRAF Soft HMI \(top-left icon\)](#) > [ISaGRAF > Driver](#) to download the latest ISaGRAF Driver (e.g. vp-2xw7-1.xx.zip) and then update the ISaGRAF PAC by following the instructions contained in the zip file.

Download the Demo Project:

This document is ISaGRAF FAQ-170. The document (faq170.pdf) and related files (*ISaGRAF_Demo: faq170.pia*, *Soft-GRAF_Demo: FAQ-170.sof* and *demo images*, *Schedule_Control: Schedule_in_PC.exe* and *configuration files*) can be downloaded from www.icpdas.com > [Support > FAQ > ISaGRAF Soft-Logic PAC > 170](#)

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1.2. Restore the Demo Project

After downloading the relevant files, move the ISaGRAF project file (faq170.pia) to the “C:\ISAWIN” folder, and then restore it to the ISaGRAF projects archive by following the process indicated below:

Restore the ISaGRAF Project:

ISaGRAF_Demo: faq170.pia

From the Tools menu, click the Projects option in the Archive submenu to open the “Archive – Projects” window.

Restore the faq170.pia project file from the folder that is indicated in the "Archive location" (e.g., C:\ISAWIN). If you wish to change the folder, click the Browse button.

After restoring the faq170.pia project file, the project name "faq170" will be displayed in the “Project Management” window.

Soft-GRAF Studio Project:

Soft-GRAF_Demo: FAQ-170.sof and some related images.

After downloading the demo files (refer to [Section 1.1](#)), move the “FAQ-170” folder to the Soft-GRAF Studio installation path (e.g., D:\Soft-GRAF Studio. Refer to the [FAQ-146](#) for instructions related to the software installation).

Schedule-Control Utility:

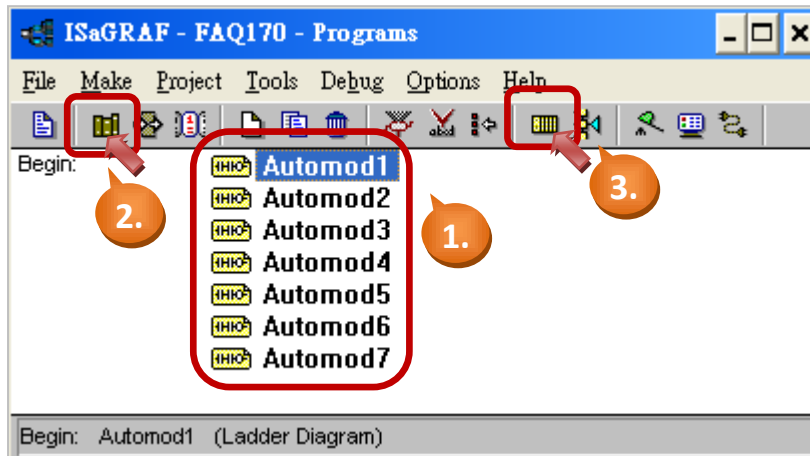
Schedule_Control: Schedule_in_PC.exe and configuration files.

After downloading the demo files (refer to [Section 1.1](#)), the “Schedule_Control” folder can be saved to the Windows Desktop, or any other convenient location.

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1.3. Description of the FAQ-170 ISaGRAF Project

In the previous section, the faq170.pia ISaGRAF project was restored. As indicated in the figure below, the description of this project is divided into three parts.



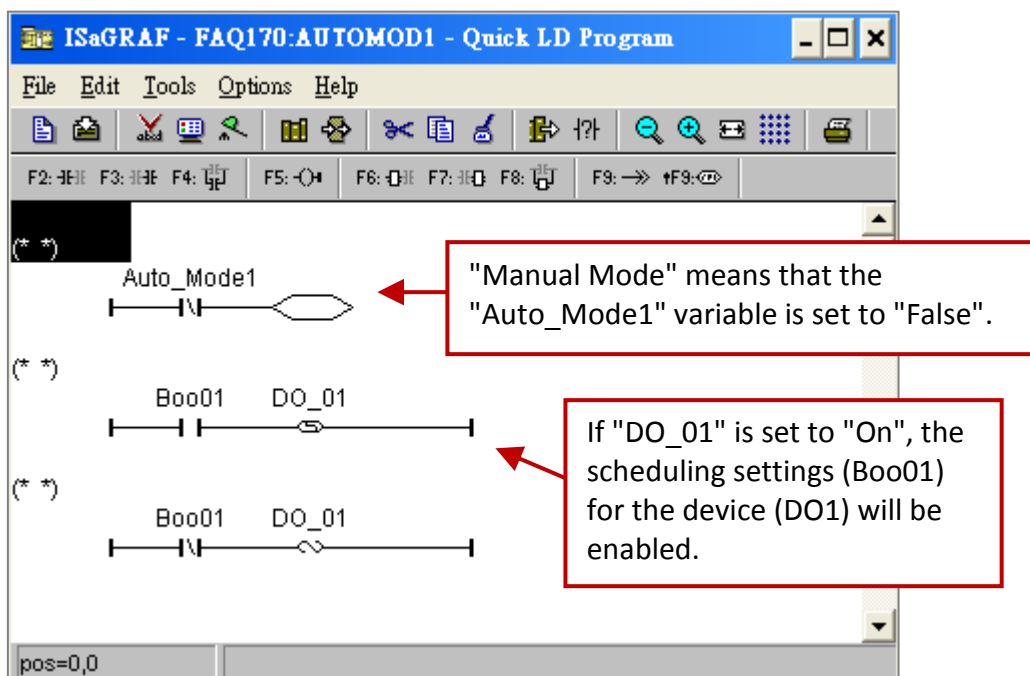
- ① This demo project includes 7 LD programs (Automode1 to 7).
- ② Click the "Dictionary" button to view all the ISaGRAF variables that are used in this project.
- ③ Click the "I/O Connection" button to view all the I/O functions that are used in this project.

1.3.1. ISaGRAF Project Architecture

LD Program:

These programs are used to enable the scheduling settings for the corresponding device when the mode is set to "Manual" (i.e., Auto_Mode" is set to "False").

Note: This project uses scheduling for 7 devices (Boo01 to Boo07) and 7 "DO" tags (DO_01 to DO_07).



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1.3.2. ISaGRAF Project Variables

| Name | Type | Attrib. | Addr. | Description |
|------------|---------|----------|-------|---|
| Target_01 | Boolean | Input | - | Device 1 to 7. (These variables are used for the "Schedule" function in the "I/O Connection" window, refer to Section 1.3.3 for details). |
| Target_02 | Boolean | Input | - | |
| Target_03 | Boolean | Input | - | |
| Target_04 | Boolean | Input | - | |
| Target_05 | Boolean | Input | - | |
| Target_06 | Boolean | Input | - | |
| Target_07 | Boolean | Input | - | |
| Auto_Mode1 | Boolean | Internal | 8 | Auto Mode (Initial value as "True") True: Auto; False: Manual Network Address (Hex.) = 0008 to 000E |
| Auto_Mode2 | Boolean | Internal | 9 | |
| Auto_Mode3 | Boolean | Internal | 10 | |
| Auto_Mode4 | Boolean | Internal | 11 | |
| Auto_Mode5 | Boolean | Internal | 12 | |
| Auto_Mode6 | Boolean | Internal | 13 | |
| Auto_Mode7 | Boolean | Internal | 14 | |
| DO_01 | Boolean | Output | 1 | DO1 (Home - Lighting Control) |
| DO_02 | Boolean | Output | 2 | DO2 (Home - Air Conditioner Control) |
| DO_03 | Boolean | Output | 3 | DO3 (Lawn - Auto Sprinkler Control) |
| DO_04 | Boolean | Output | 4 | DO4 (Shopping Mall - Air Conditioner) |
| DO_05 | Boolean | Output | 5 | DO5 (Shopping Mall - Lighting Control) |
| DO_06 | Boolean | Output | 6 | DO6 (Shopping Mall - Lighting Control) |
| DO_07 | Boolean | Output | 7 | DO7 (Factory – Device Control) |
| Boo01 | Boolean | Internal | 4001 | These Boolean variables are controlled by Targets 1 to 7. Network Address (Hex.) = 0FA1, 0FA6, ..., 0FBA, 0FBF. Note: The address used for schedule control must start from 4001 and then increase in intervals of 5. |
| Boo02 | Boolean | Internal | 4006 | |
| Boo03 | Boolean | Internal | 4011 | |
| Boo04 | Boolean | Internal | 4016 | |
| Boo05 | Boolean | Internal | 4021 | |
| Boo06 | Boolean | Internal | 4026 | |
| Boo07 | Boolean | Internal | 4031 | |

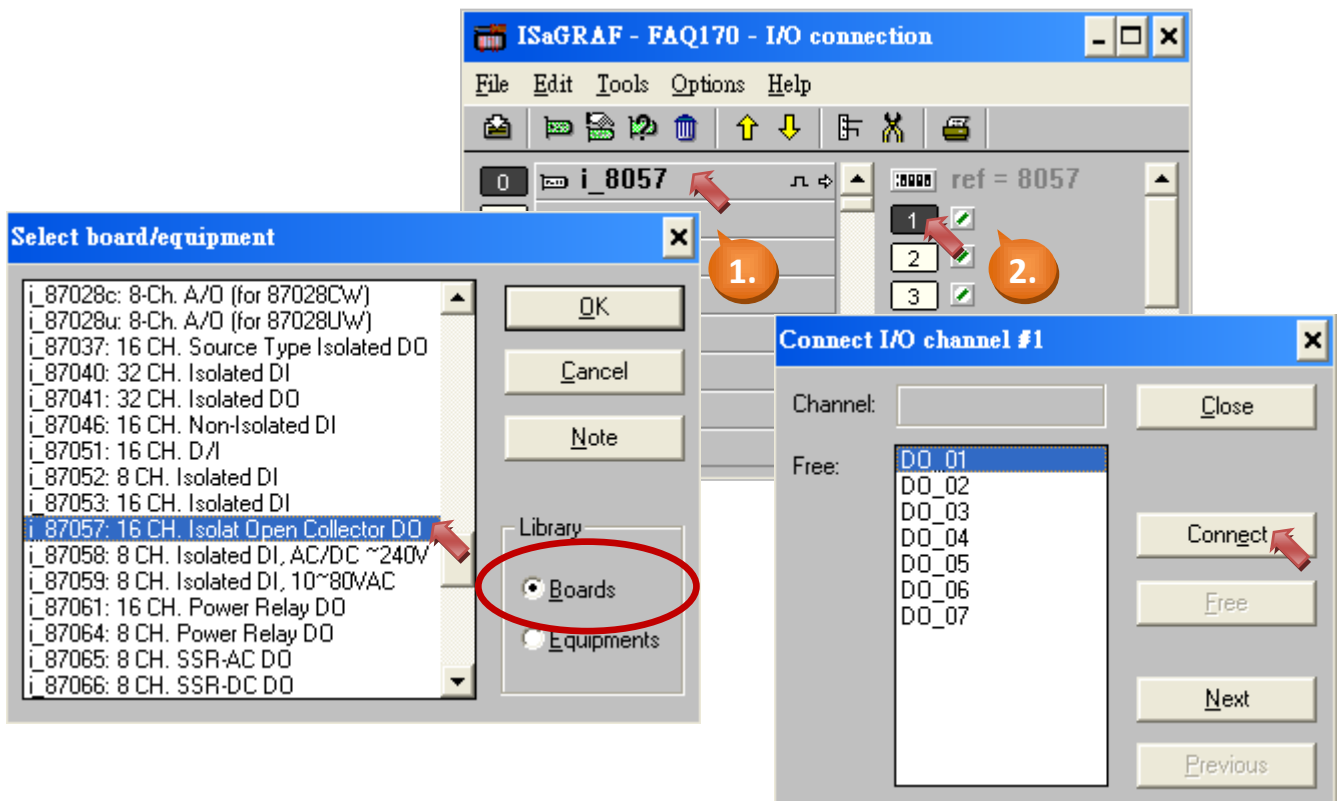
| | | | | | | | |
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1.3.3. "I/O Connection" Function

Connecting the I/O Boards - "i_87057":

For the FAQ-170 project, a single I-87057W DO module is inserted in Slot 0 of the VP-25W7.

1. In the "I/O connection" window, double-click I/O Slot "0" to display the "Select board/equipment" dialog box and add the "i_87057".
2. Double-click I/O channel #1 to display the "Connect I/O channel #n" dialog box, which will automatically list all the DO variables that have been defined previously. Click the "Connect" button to connect the first variable and continue clicking for each variable (DO_01 to DO_07) to be connected.



Connecting the I/O Equipment - "schedule" and "soft_grf" :

To enable the Soft-GRAF HMI and Schedule-Control on the PAC, "soft_grf" and "schedule" must be connected in the "I/O Connection" window.

Follow the procedure indicated in the figure below:

1. Add the "schedule" function to Slot 9 in the "I/O connection" window.
2. Connect the corresponding Input variables (Target_01 to Target_07) and set the download password.
3. Add the "soft_grf" function to Slot 10.

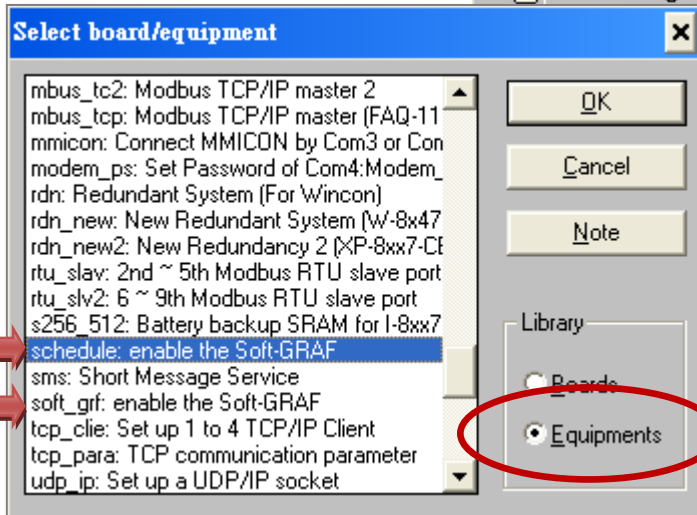
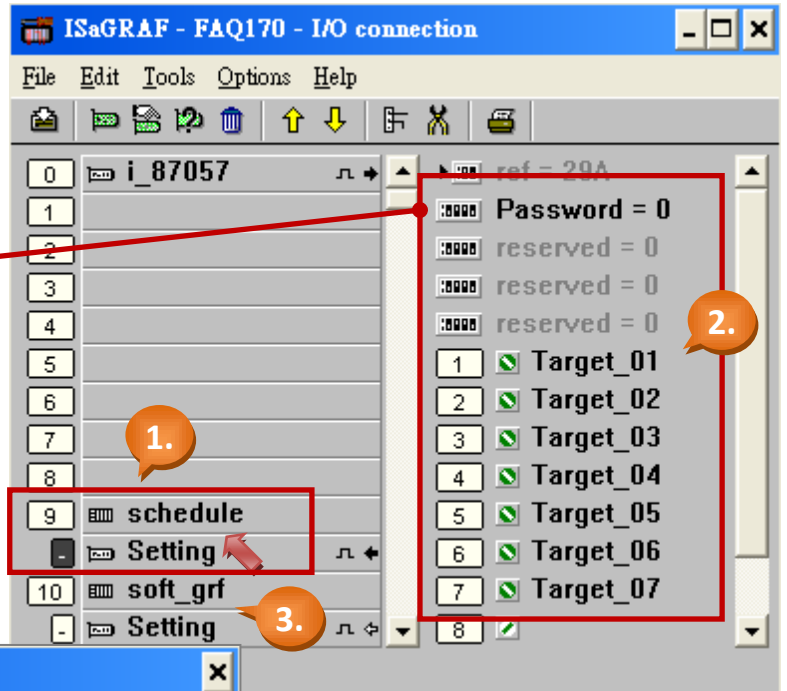
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Note:

In the “I/O connection” window, Slots 0 to 8 are usually reserved for the I/O modules inserted in the PAC (I/O Boards).

A “Password” is required when users want to download the configuration from the “Schedule-Control Utility” (PC) to the PAC.

(Refer to Section [1.5.2](#) for details)



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1.4. Description of the Soft-GRAF Studio Project (FAQ-170)

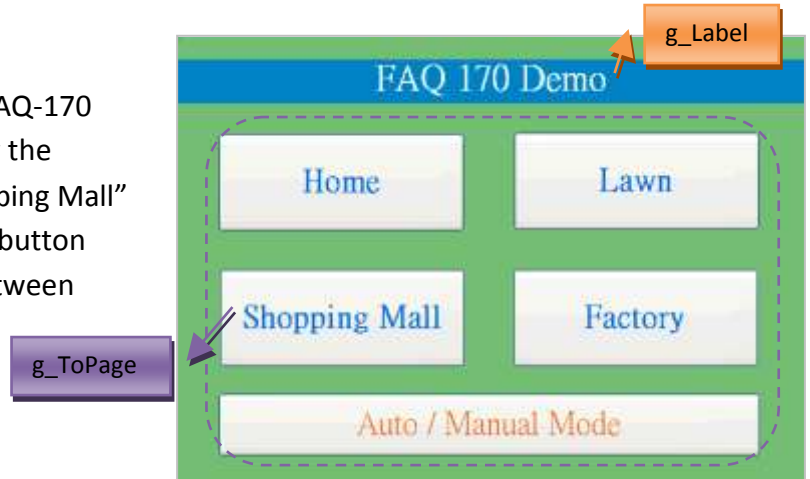
As described in [Section 1.2](#), the “FAQ-170” folder (including the FAQ-170.sof file and the demo images) was moved to the installation path for Soft-GRAF Studio. This project contains 6 HMI pages.

Note: If you are not familiar with Soft-GRAF Studio, refer to [FAQ-146](#) for more details.

Note: In FAQ-170, Soft-GRAF Studio V1.10 is used.

1.4.1. HMI Page 1 – FAQ-170 Demo

Five buttons (g_ToPage) are used in the FAQ-170 demo. Click the relevant button to display the control pages for “Home”, “Lawn”, “Shopping Mall” and “Factory”. There is also an additional button that is used to configure the switching between Auto Mode or Manual Mode.



1.4.2. HMI Page 2 – Home

The following is an example of how to implement Device Control for two rooms in a Home environment.

Room1 (Home Lighting)

(DO1: Addr. = 1, Auto_Mode1: Addr. = 8.)

Room2 (Air Conditioner)

(DO2: Addr. = 2, Auto_Mode2: Addr. = 9.)

(Refer to [Section 1.3.2, ISaGRAF Variables](#) for details of the network address)

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1.4.3. HMI Page 3 - Lawn (Auto Sprinkler)

The following is an example of how to implement Device Control for an automatic Lawn Sprinkler system.

Auto Sprinkler (DO3: Addr. = 3, Auto_Mode3: Addr. = 10.)

(Refer to [Section 1.3.2, ISaGRAF Variables](#) for details of the network address)

“g_B_Pic” object, Addr. =0

g_B_Pic (Pic Setting):
 Network Address: 3
 Using bool addr to hide
 True File: Switch19_On_N.jpg
 False File: Switch19_Off_N.jpg

g_B_Inp (Input Setting):
 Network Address: 3
 Title of Dialog: ...
 Level: 0
 Using bool addr to hide: 10
 Mode Select: Normal

g_ToPage (ToPage Setting):
 Size: W 112, H 50
 Location: X 493, Y 327
 Font size: 12,Regul
 Fore Color: [Black]
 Level: 0
 Show as picture
 Using bool addr to hide
 Ask before operation
 Ask message: [Empty]
 Deny message: Access Deny.
To Which Page: 6
 Title: Auto / Manual

In “Auto” mode (i.e., Auto_Mode3 = True; Addr. = 10), this control button will not be visible.

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1.4.4. HMI Page 4 - Shopping Mall

The following is an example of how to implement Device Control for the air-conditioning and lighting systems in a Shopping Mall.

Mall – Air Conditioner

(DO4: Addr. = 4, Auto_Mode4: Addr. = 11.)

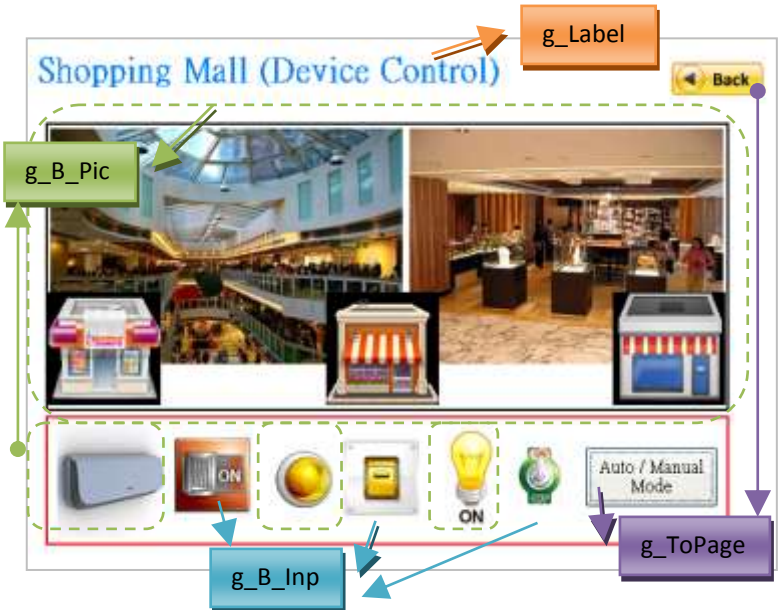
Mall – Light 1

(DO5: Addr. = 5, Auto_Mode5: Addr. = 12.)

Mall – Light 2

(DO6: Addr. = 6, Auto_Mode6: Addr. = 13.)

(The settings for this page are similar to those for [HMI Page 3](#). Refer to [Section 1.3.2, ISaGRAF Variables](#) for details of the network address)



1.4.5. HMI Page 5 - Factory

The following is an example of how to implement Device Control for a robot in a factory environment.

Factory device

(DO7: Addr. = 7, Auto_Mode7: Addr. = 14.)

(The settings for this page are similar to those for [HMI Page 3](#). Refer to [Section 1.3.2, ISaGRAF Variables](#) for details of the network address)



1.4.6. HMI Page 6 - Auto / Manual Mode

As indicated in the figures above, each HMI page (1 to 5) includes an “Auto/Manual Mode” button, which can be used to display HMI page 6 where "Auto" or "Manual" mode can be configured for each device.

“Auto_Mode1 to 7”, Addr. = 8 to 14.

(Refer to [Section 1.3.2, ISaGRAF Variables](#) for details of the network address)

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The following images illustrate the settings for the "Auto/Manual" and "Scheduling" button objects shown on HMI page 6.

In the PAC, click the "Auto/Manual" button to change the device to "Auto" or "Manual" mode.

The page number "201" is used to call the Schedule-Control screen in the PAC.

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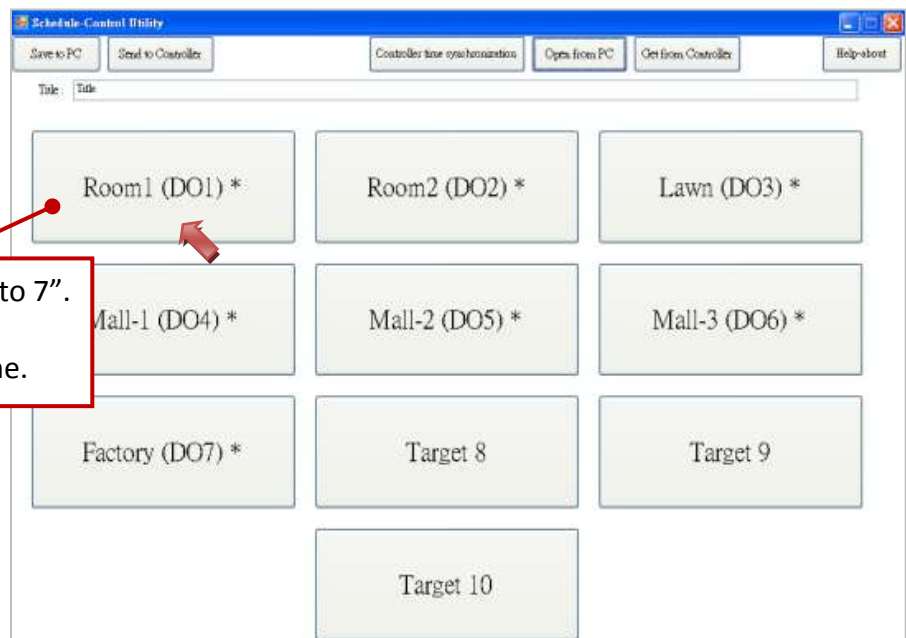
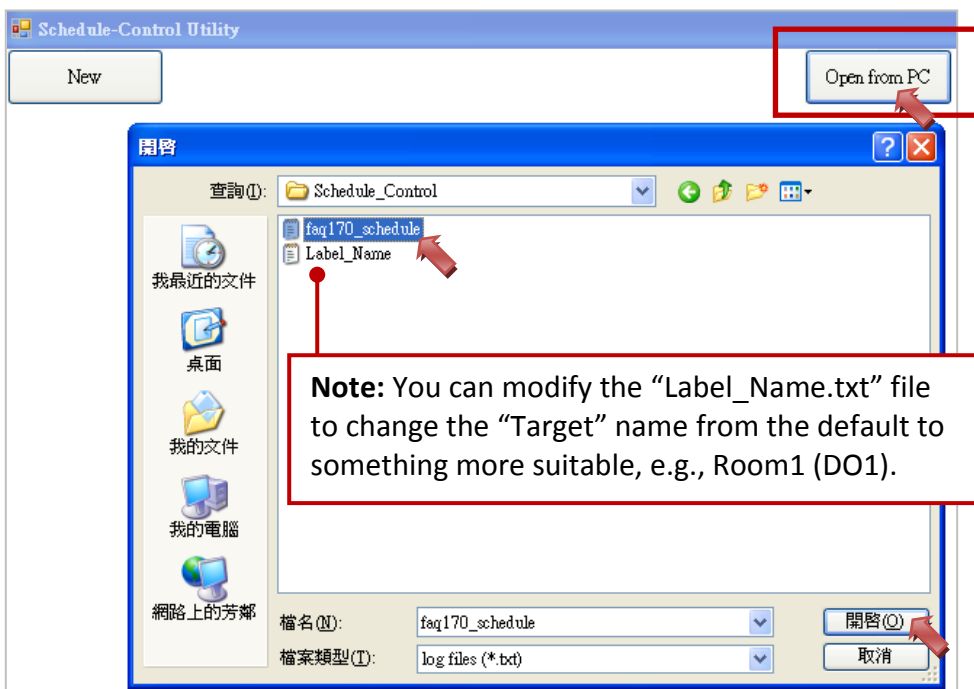
1.5. Schedule-Control Utility (FAQ-170)

As described in [Section 1.2](#), the “Schedule_Control” folder (including the Schedule_in_PC.exe file and the configuration files) was moved to the Desktop in Windows.

Note: If you are not familiar with the “Schedule-Control Utility”, refer to [FAQ-166](#) for more details).

1.5.1. Configure the Scheduling

Double-click “Schedule_in_PC.exe” to open it, and then click the "Open from PC" button on the top-right to open the scheduling file (e.g., faq170_schedule.txt) that was previously configured. You can also click the “New” button to create a new scheduling file.



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A single ISaGRAF PAC supports a maximum of 10 devices (“Target”) for schedule control. Each “Target” can control one Boolean, one Integer and one Real variable.

The schedule can be configured for seasons (e.g., summer, “Season 3”, Jul. to Sep.), Normal days (e.g., weekdays, Mon. to Fri.), Holiday 1 (e.g., weekends, Sat. or Sun.), Holiday 2 (e.g., Oct. 10), Special day (local holiday, Thanksgiving Day – e.g., Nov. 28, 2013, a maximum of 50 days can be set per season). (Refer to [FAQ-166](#) for more information)

The FAQ-170 demo uses “Target 1 to Target 7”, and the following are the settings for each target:

| Devices | Enable the Scheduling (On) | | |
|-------------------------|----------------------------|---------------------------------------|---|
| | Period | Week | (Schedule) - Time |
| Target 1 (Room1, DO1) | Season Always * | Mon. to Thur. | (1) - 18:00 to 22:30 |
| Target 2 (Room2, DO2) | | Holiday 1 (Fri. to Sun.) | (2) - 18:00 to 23:30 |
| Target 3 (Lawn, DO3) | Season 1 (Jan. to Mar.) | Mon. | (1) - 9:00 to 9:20 |
| | Season 2, 3 (Apr. to Sep.) | Mon., Wed., Fri. | (1) - 5:00 to 5:20 (1) - 19:00 to 19:20 |
| | Season 4 (Oct. to Dec.) | Mon., Thur. | (1) - 10:00 to 10:20 |
| Target 4 (Mall-1, DO4) | Season Always * | Mon. to Sun. | (1) - 10:00 to 22:00 |
| Target 5 (Mall-2, DO5) | | | (1) - 9:00 to 22:30 |
| Target 6 (Mall-3, DO6) | | | (1) - 8:30 to 23:30 |
| Target 7 (Factory, DO7) | Season Always * | Mon. to Fri. | (1) - 8:30 to 12:00 |
| | | | (1) - 13:00 to 15:00 |
| | | | (1) - 15:00 to 18:00 |
| | | Holiday 1 (Sat., Sun.) | (2) - 9:00 to 12:00 (2) - 13:00 to 15:00 |
| | | Special day (Nov. 28, 2013) | (3) - 8:00 to 12:00 |

* “Season Always”= January to December

As shown in the figure below, five “Schedule” entries (Schedule 1 to Schedule 5) can be configured for each “Target”, and 15 time periods (00:00 to 24:00) can be set for each “Schedule” entry.

In this chapter, we only describe the settings for Target 1 (Room1, DO1) and Target 7 (Factory, DO7) because the operations for these “Targets” are similar. (If you are not familiar with the “Schedule-Control Utility”, refer to [FAQ-166](#) for more details).

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Target 1 (Room1, DO1): Set the options for “Normal day” and “Holiday 1”.

Step 1. Check the "Room1" checkbox, and then check the "Season Always" checkbox to enable these settings.

Step 2. Check the "Normal day" checkbox, and check the checkboxes for "Monday" to "Thursday", and then click the "Schedule 1" button and set the time period to “18:00 to 22:30”.

Step 3. Using the same way to set the "Holiday 1" (e.g., "Friday" to "Sunday") and the "Schedule 2" (e.g., “18:00 to 23:30”).

The screenshot shows the 'Schedule-Control Utility' window for 'Room1 (DO1) > Season Always > Normal day'. It includes a 'Back' button and a 'Save to PC' button. The 'Room1' checkbox is checked and highlighted with a red box and arrow. Below it, the 'Season Always' checkbox is also checked and highlighted with a red box and arrow, with a callout bubble containing the number '1.'. To the right, there are input fields for 'Default Value' with dropdowns for 'Boolean' (set to 'OFF'), 'Integer' (set to '0'), and 'Real' (set to '0.0'). Below these are buttons for 'Season Always *', 'Season 1', 'Season 2', 'Season 3', and 'Season 4'. A red box highlights the 'Normal day' checkbox, which is checked, with a callout bubble containing the number '2.'. Below it, there are radio buttons for 'Normal day (Schedule 1 *)', 'Holiday 1 (Schedule 2 *)', 'Holiday 2', and 'Special day'. The 'Normal day (Schedule 1 *)' radio button is selected. To its right, there is an 'Apply' dropdown set to 'Schedule 1 *' and a list of days with checkboxes: Sunday (unchecked), Monday (checked), Tuesday (checked), Wednesday (checked), Thursday (checked), Friday (unchecked), and Saturday (unchecked). A red box highlights the Monday-Thursday checkboxes, with a callout bubble containing the number '3.'. To the right of the day list is a vertical stack of buttons for 'Schedule 1 *', 'Schedule 2 *', 'Schedule 3', 'Schedule 4', and 'Schedule 5'. A red box highlights the 'Schedule 1 *' button, with a red arrow pointing from a text box below to it. The text box contains the text: 'A maximum of five "Schedule" entries can be set for each "Target".'

The screenshot shows the 'Schedule 1' configuration window. It has a 'Copy from' button at the top. Below it is a table with columns for 'Hour', 'Minute', 'To', 'Hour', 'Minute', 'Boolean', 'Integer', and 'Real'. The first row is highlighted with a red box and contains the following values: a checked checkbox, '01:', '18', '0', '22', '30', 'ON', '0', and '0'. Below this are rows for '02:', '03:', '04:', and '05:', each with an unchecked checkbox and default values. A red box highlights the first row, with a callout bubble containing the text: 'Up to 15 time periods (00:00 to 24:00) can be set for each "Schedule" entry.'

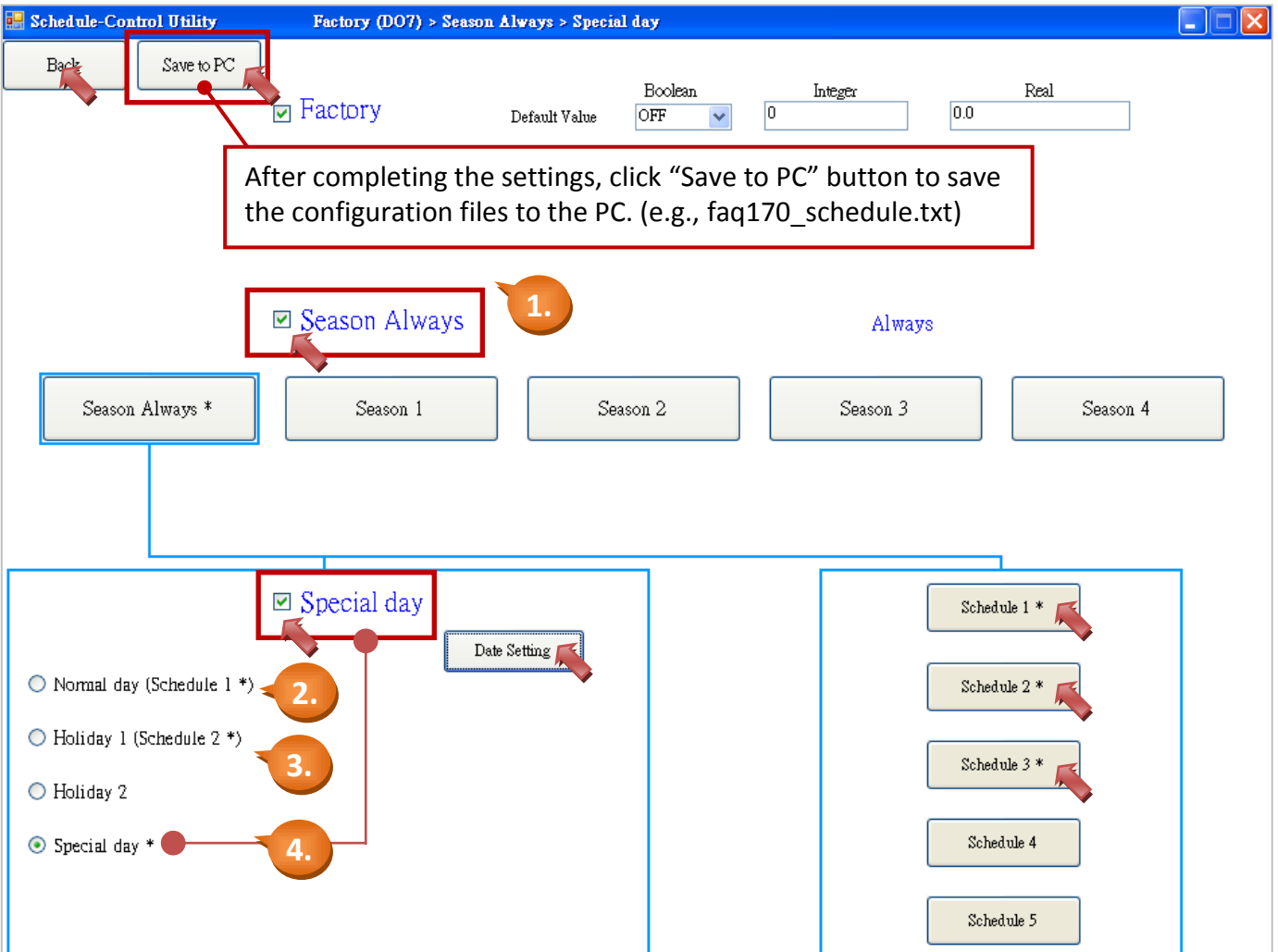
| | | | | | | | |
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Target 7 (Factory, DO7): Set the options for “Normal day”, “Holiday 1” and “Special day”.

Step 1. Check the "Factory" checkbox, and then check the "Season Always" checkbox to enable these settings.

Step 2. Check the "Normal day" checkbox, and check the checkboxes for “Monday” to “Friday”, and then click the "Schedule 1" button and set the time period to “8:30 to 12:00”, “13:00 to 15:00” and “15:00 to 18:00”.

Step 3. Using the same way to set the "Holiday 1" (e.g., “Saturday” and “Sunday”) and the "Schedule 2" (e.g., “9:00 to 12:00” and “13:00 to 15:00”).



Step 4. In the same way, click the "Special day" radio button and then check the "Special day" checkbox button, then click the “Date Setting” button. As indicated in the figure below, click the "Add a new date" button to set the specific date, and then click the "Save Settings" button to save the settings. To set the time period, click the "Schedule 3" button and set entry "01" to "8:00 to 12:00". Finally, click the “Save and exit” button to save the settings and close the window.

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Date Settings:

Setting
Factory (DO7) > Season Always > Special day

Always

01. * 2013/Nov/28 Schedule 3 *

Calendar

November, 2013

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|-----|-----|-----|-----|-----|-----|
| 27 | 28 | 29 | 30 | 31 | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

今天: 2013/11/04

Confirm Cancel

1

Enable

2013/Nov/28

Apply

Schedule 3 *

Save Setting Clear all Exit

Add a new date

Delete

Click the Date button to modify the settings.

Schedule 3:

Schedule 3

Copy from

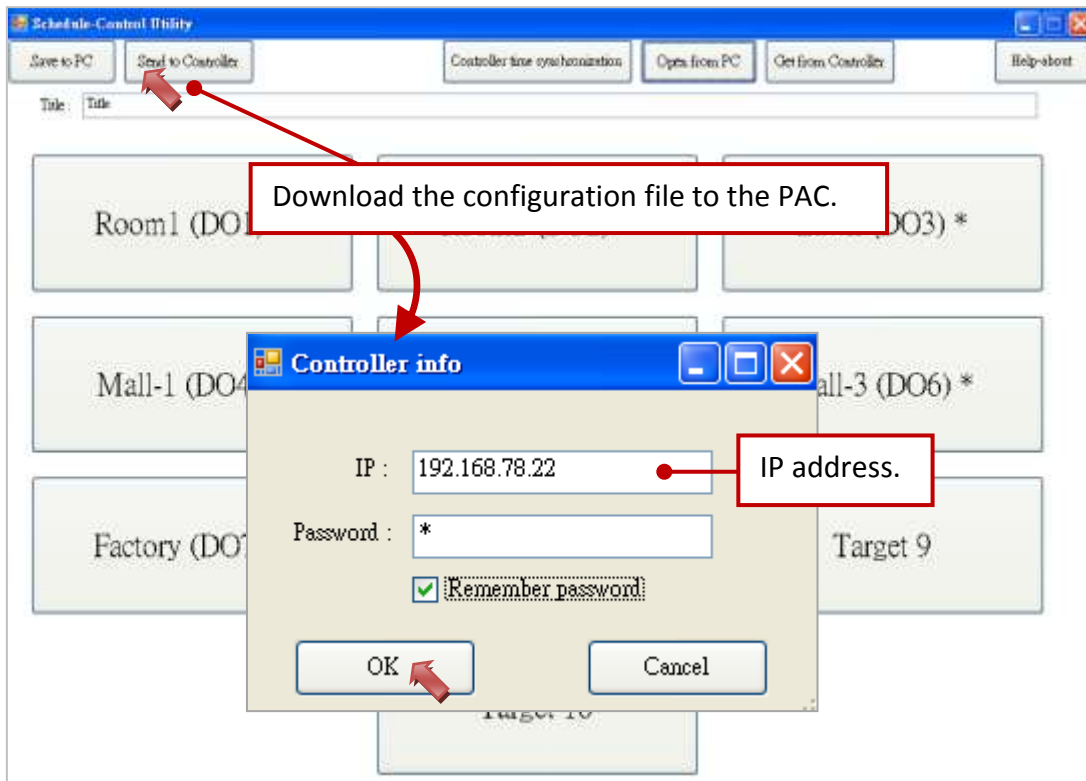
| | Hour | Minute | To | Hour | Minute | Boolean | Integer | Real |
|---|------|--------|----|------|--------|---------|---------|------|
| <input checked="" type="checkbox"/> 01: | 8 | 0 | | 12 | 0 | ON | 0 | 0 |
| <input type="checkbox"/> 02: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 03: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 04: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 05: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 06: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 07: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 08: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 09: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 10: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 11: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 12: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 13: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 14: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |
| <input type="checkbox"/> 15: | 0 | 0 | | 0 | 0 | OFF | 0 | 0 |

Save and exit Cancel

| | | | | | | | |
|----------------|-------------------------|---------|-----|------|-----------|------|---------|
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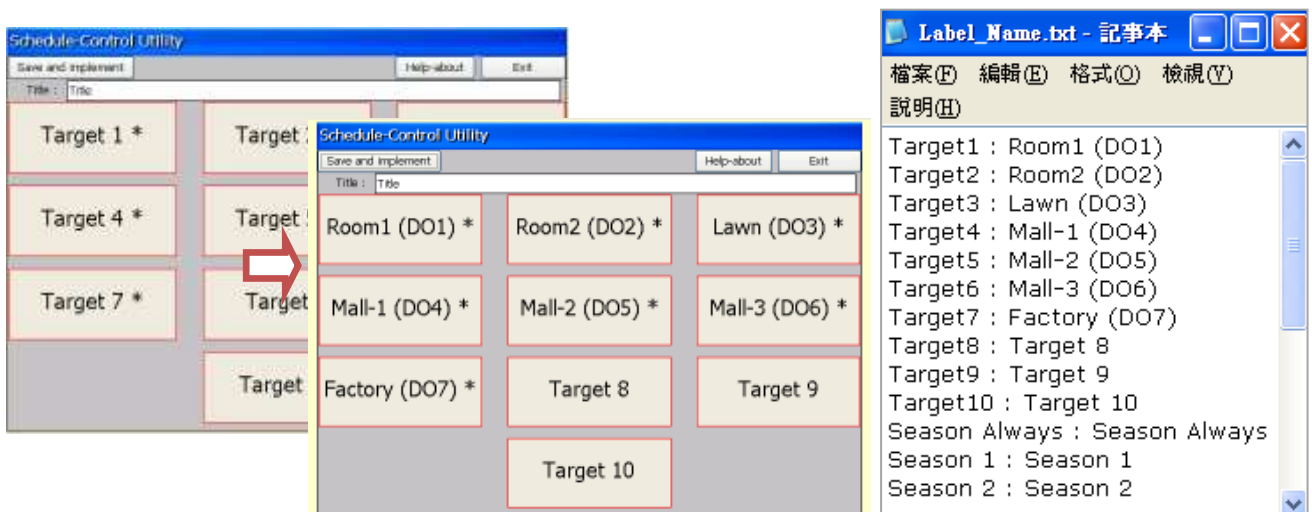
1.5.2. Download the Scheduling settings to the ISaGRAF PAC

Click the "Send to Controller" button and then enter the IP Address for the PAC and the password ("0", refer to the description in the [Section 1.3.3](#)) to download the configuration file to the PAC.



1.5.3. Change the "Target" name in the ISaGRAF PAC

The "Label_Name.txt" file (refer to [Section 1.5.1](#)) can be modified to display a more appropriate name for each of the targets. After modification, copy the file to the "/System_Disk/ISaGRAF/" folder (if using the VP-25W7) to change the name(s) of the Target(s).



| | | | | | | | |
|----------------|-------------------------|---------|-----|------|-----------|------|---------|
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1.5.4. Schedule-Control in the ISaGRAF PAC

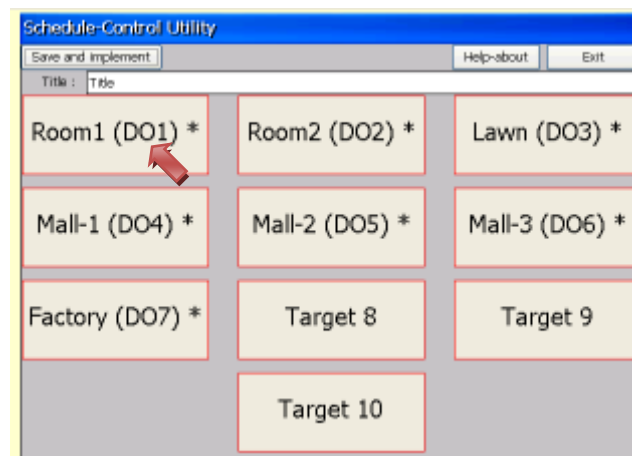
The schedule settings can be modified on the PAC by using the procedure illustrated in the figure below.

Step 1. Click the "Auto/Manual Mode" button to display the configuration page.

Step 2. Click the "Scheduling" button to display the Schedule-Control Utility.



Step 3. Click one of the targets (e.g., "Room1 (DO1)") to modify the required settings.



| | | | | | | | |
|----------------|-------------------------|---------|-----|------|-----------|------|---------|
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Configuration Pages:

For more detailed instructions regarding the configuration page, see [Section 1.5.1](#), or refer to Section 1.3.8 of [FAQ-166](#).

The screenshot shows the 'Schedule-Control Utility' window for 'Room1 (DO1) > Season Always > Norm...'. It features several control elements:

- Buttons: 'Save and implement', 'Back', 'Help-about', 'Exit'.
- Room1: Enable
- Default Value: Boolean (OFF), Integer (0), Real (0.0)
- Season Always: Enable, Always
- Seasons: 'Season Always *' (selected), Season 1, Season 2, Season 3, Season 4.
- Normal day: Enable
- Apply: Schedule 1 * (selected)
- Day selection:
 - Normal day (Schedule 1 *)
 - Holiday 1 (Schedule 2 *)
 - Holiday 2
 - Special day
 - Sunday
 - Monday
 - Tuesday
 - Wednesday
 - Thursday
 - Friday
 - Saturday
- Schedule buttons: Schedule 1 *, Schedule 2 *, Schedule 3, Schedule 4, Schedule 5.

The screenshot shows the 'Schedule 1' configuration window. It includes a table for defining schedule periods:

| Period No. | Hour | Minute | ~ | Hour | Minute | Boolean | Integer | Real |
|---|-------|--------|-------|-----------------|--------|------------------------------|---------|------|
| 01 | 18 | 0 | ~ | 22 | 30 | ON | 0 | 0 |
| | | | | | | (Boolean , Integer , Real) | | |
| <input checked="" type="checkbox"/> 01: | 18:00 | ~ | 22:30 | (ON , 0 , 0) | | | | |
| <input type="checkbox"/> 02: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 03: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 04: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 05: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 06: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 07: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 08: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 09: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 10: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 11: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 12: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 13: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 14: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |
| <input type="checkbox"/> 15: | 00:00 | ~ | 00:00 | (OFF , 0 , 0) | | | | |

Buttons: 'Copy From', 'Save and exit', 'Cancel'.