

Investigation Delay to Outputs

This Tech Tip explains how to set up and use the **investigation delay to outputs** feature. This applies a delay to all outputs, allowing the responsible person(s) on site time to investigate a fire alarm activation.

Investigation Delays

Investigation delays provide a configurable time delay to allow the responsible person on site to investigate fire signals before outputs activate. A countdown timer is displayed on the panel to indicate the length of the investigation delay.

This feature can be configured in two stages:

Initial short delay (Stage 1)

This delay is used to notify the person responsible on site that there is an alarm activation.

Figure 1 shows an example of how a 120-second stage-1 delay appears within the software. The delay gives the responsible person time to get to the panel and extend the investigation by pressing the '0' key.

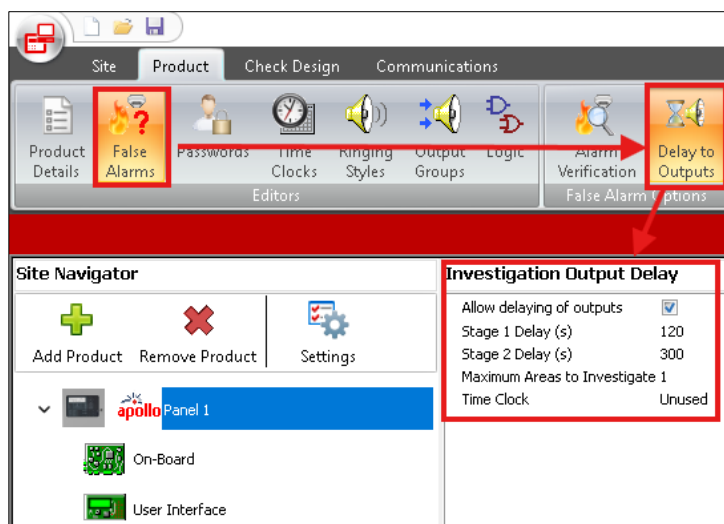
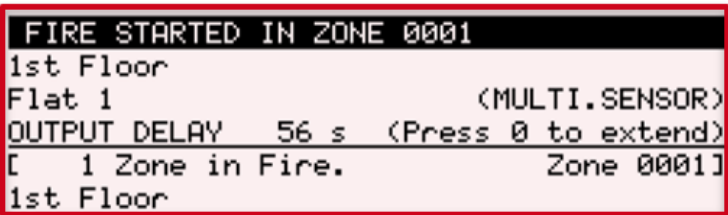


Figure 1

Figure 2 shows how this appears on the panel display.



```
FIRE STARTED IN ZONE 0001
1st Floor
Flat 1 (MULTI.SENSOR)
OUTPUT DELAY 56 s (Press 0 to extend)
[ 1 Zone in Fire. Zone 0001]
1st Floor
```

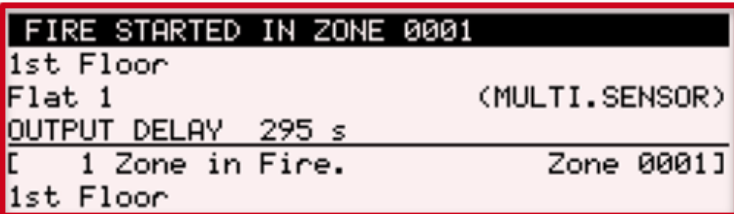
Figure 2

Extended investigation period (Stage 2)

This is the actual investigation period programmed to allow the responsible person to explore the site to find the source of activation.

The responsible person can clear the fire and reset the panel during the investigation period or press the closest call point to cancel the delay and evacuate the whole site. A full-site evacuation also happens if the timer reaches 0.

Figure 3 shows the countdown timer when the customer presses the panel '0' key which initiates the second stage of the investigation delay.



```
FIRE STARTED IN ZONE 0001
1st Floor
Flat 1 (MULTI.SENSOR)
OUTPUT DELAY 295 s
[ 1 Zone in Fire. Zone 0001]
1st Floor
```

Figure 3

Delay to outputs can be linked to time clocks

Within the time clock settings, the function can also be manually controlled using a key switch, push buttons or interfaces.

The example on the next page (**figure 4**) shows a key switch delay override, which cancels the programmed delay at any time. The time clock is set to activate **delay to outputs** from 09:00 to 17:00, while the key switch can disable this schedule regardless of the time of day.

Within configuration tool, click **Onboard > Inputs > Program > Input Action** to select the desired input.

Point Details	
Address 10.0	
Type	Switch
Location Text	Panel Input 1
Zone	200 Panel 1
Input Action	Control Signal
Double Knock	☒
Input Latched	☐
Input Trigger	Active High
Disablement Group	-
Sensitivity Adjust Mode	
Delay (s)	0

The screenshot shows the software interface with the 'Time Clocks' tab selected. The 'Site Navigator' on the left shows 'Panel 1' selected. The main area displays the 'Time Clocks' configuration for '01: Node 001, On-Board, Panel S/W-1 Switch "Panel Input 1"'. The configuration shows a schedule for Monday through Friday from 09:00 to 17:00, and Saturday and Sunday are marked as inactive.

Investigation Output Delay	
Allow delaying of outputs	☒
Stage 1 Delay (s)	120
Stage 2 Delay (s)	300
Maximum Areas to Investigate	1
Time Clock	1

Figure 4

Operation/Delayed Alarm inputs

The operation/delayed alarm inputs function allows the fire alarm control panel to manage how and when alarm signals activate outputs from certain inputs such as heat, smoke, multisensor detectors and call points.

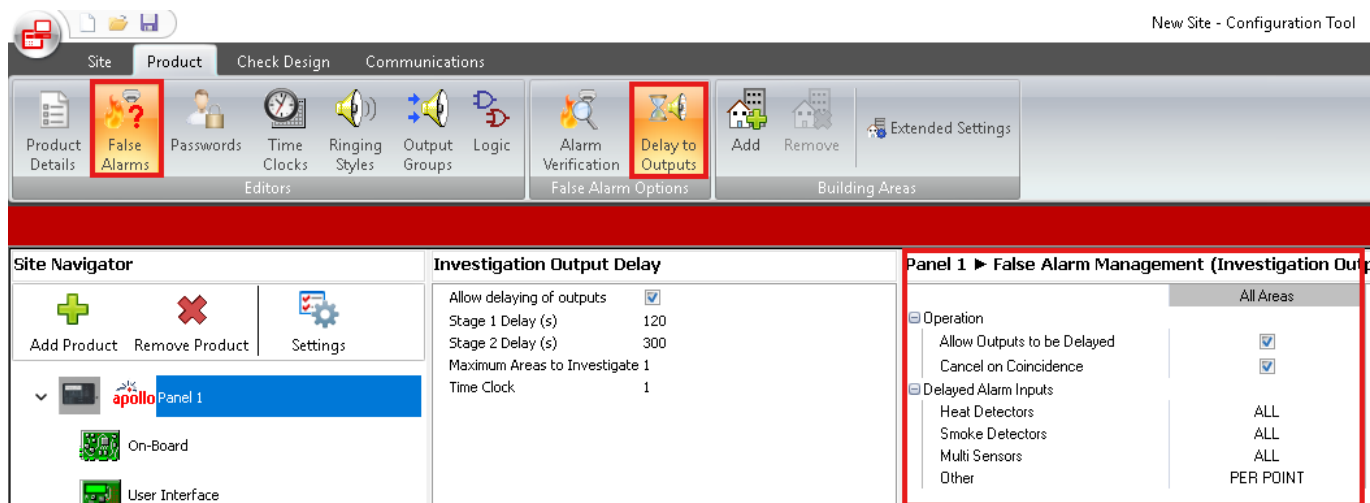


Figure 5

The options highlighted in the red box in **figure 5** (above) are as follows:

- **Allow Outputs to be Delayed** – must be enabled to activate the delay to outputs function on the panel.
- **Cancel on Coincidence** – acts as a double knock (e.g. two devices in fire or a call point). This overrides the investigation delay and triggers outputs in line with the cause & effect.
- **Delayed Alarm Inputs** – determines which devices follow the Investigation Delay:
 - **All** – all inputs of this type follow the delay.
 - **Per Point** – individual inputs can be set to follow delay within their loop settings. **Figure 6** below shows how to set individual devices to follow the delay.
 - **Dash** – does not follow delay.

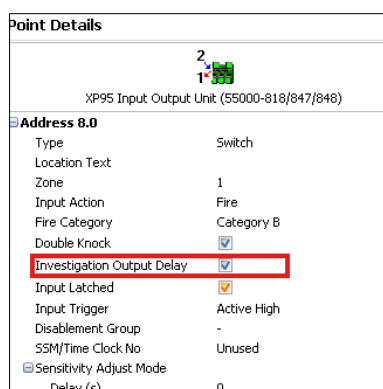


Figure 6

Ringing styles

Ringing styles can be configured to be suspended during the investigation period. Any event assigned to the selected ringing style will follow the investigation delay and only activate once the delay has completed. Please see **figure 7** below which shows how to program a ringing style delay which is suspended during investigation.

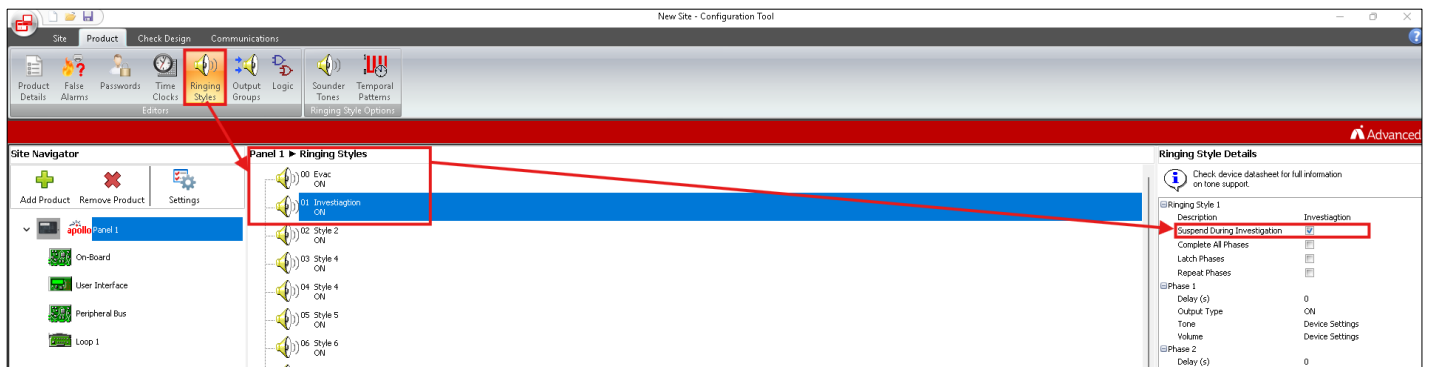


Figure 7

Building areas

'Building areas' can be included within the investigation delay to output configuration, allowing zones to be further subdivided. This enables specific sections within a zone to follow the delay independently.

For example, a single zone (e.g. floor 1 in a flat) can be split into multiple building areas, allowing more targeted sounder activation or delay control.

Figure 8 gives an example of different building areas in a building.

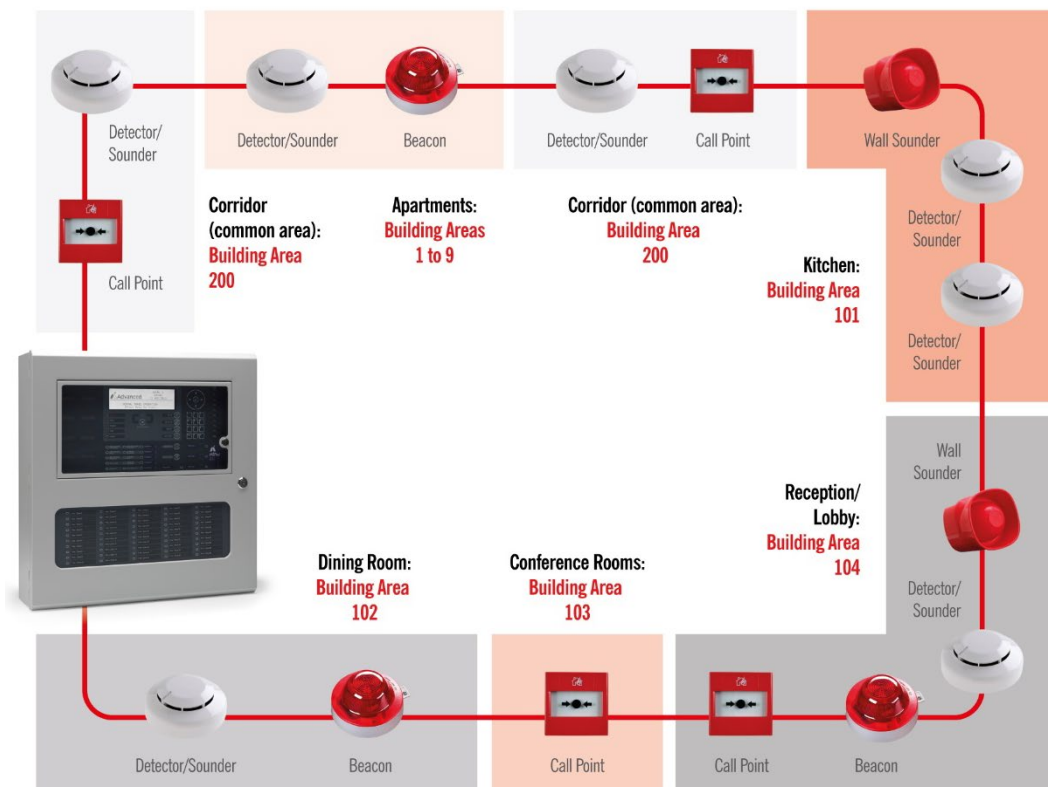


Figure 8

Figures 9 and 10 show how to add and remove building areas.

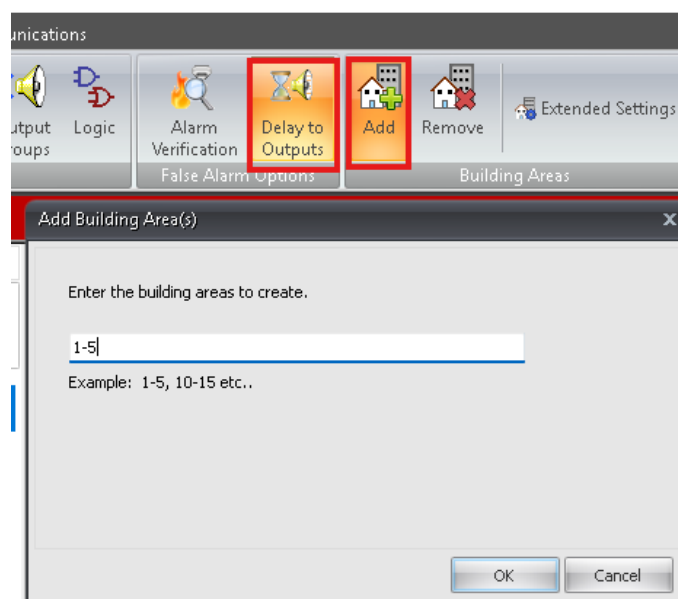


Figure 9

Panel 1 ► False Alarm Management (Investigation Output Delay Areas)						
	Other Areas	1	2	3	4	5
Operation						
Allow Outputs to be Delayed	☒	☒	☒	☒	☒	☒
Cancel on Coincidence	☒	☒	☒	☒	☒	☒
Delayed Alarm Inputs						
Heat Detectors	ALL	ALL	ALL	ALL	ALL	ALL
Smoke Detectors	ALL	ALL	ALL	ALL	ALL	ALL
Multi Sensors	ALL	ALL	ALL	ALL	ALL	ALL
Other	PER POINT	PER POINT	PER POINT	PER POINT	PER POINT	PER POINT

Figure 10

Assigning individual devices to a specific building area

By unticking the 'Use Point Zone Number for Point Building Area' option, devices on the loop can be individually assigned to a specific building area. This provides greater flexibility when configuring which areas follow the delay. This can be seen in **figure 11** below.

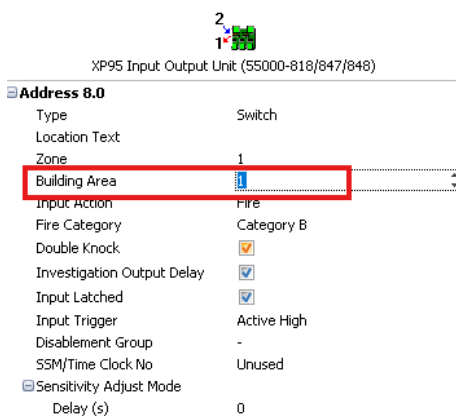
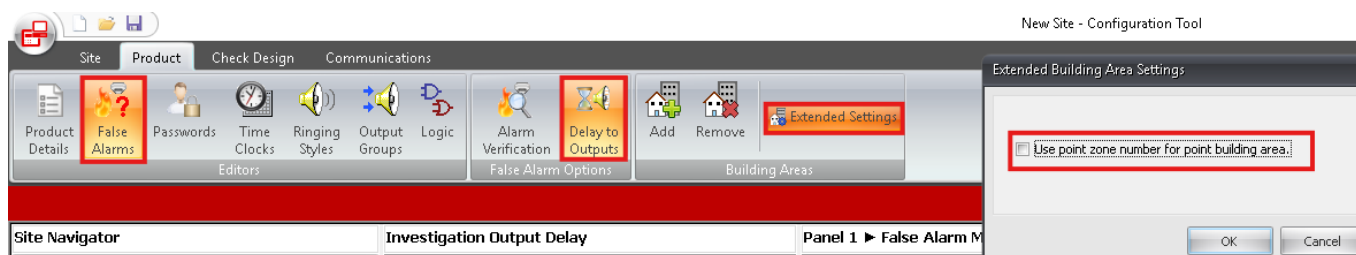


Figure 11

Important notes

- Always ensure the latest firmware version is installed.
- Consider overall system design to avoid compromising genuine fire alarm response.
- Confirm the Delayed LED is enabled (Level 2 > Delay > Permanent Delay).
- Avoid combining multiple delay methods, as this can affect response times to fire events.