HARDING

Advanced

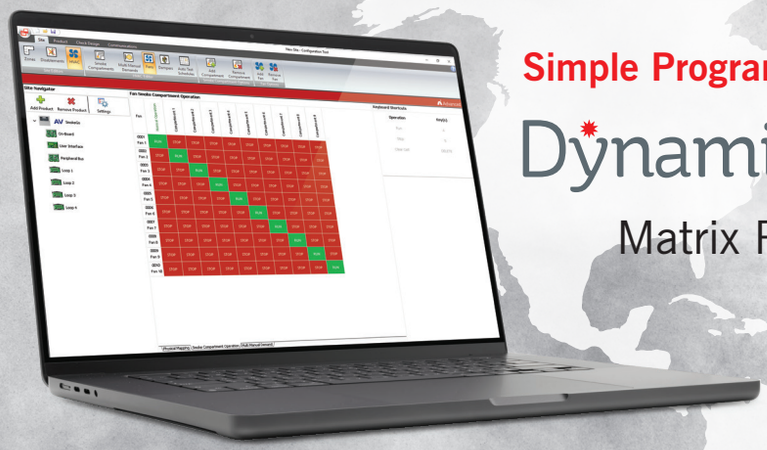
DynamixSmoke

Complete Smoke Control

Market-Leading Smoke Control

DynamixSmoke from Advanced gives you complete and active smoke control from the fire system. Nobody makes it simpler to set up, configure and use, thanks to our 4-step configuration process.

We've ultra-simplified programming by swapping complex data inputting for an easy-to-use matrix that saves you time and gives you a clear, at-a-glance view of all your fan and damper settings.



Simple Programming

Dynamix Tools

Matrix Programming

Designed for standalone, dedicated* and non-dedicated systems, DynamixSmoke is easy to set up on our Axis AX panels. Simply by adding a smoke control user interface and SLC loop interface modules, you can achieve automatic and manual control of smoke control fans and dampers.**

Advanced's DynamixSmoke features are:

- Approved to: **UL864 10th Edition – complies with UUKL requirements.**
  ULC S527 4th Edition – complies with UUKL7 requirements.

UL CERTIFIED

By choosing Advanced's DynamixSmoke, you have access to all the features required by the world's most demanding smoke control standards.

*Dedicated smoke control systems control all smoke control functions and operate independently from HVAC and other control systems.

**Non-dedicated smoke control systems share control of fans/dampers with other building systems, typically HVAC systems. When a smoke/CO/fire condition occurs, the smoke control system takes over control of all fans/dampers in the building.

Advanced

Advanced – made in the UK. Trusted around the world.

Discover more: advancedco.com | enquiries@advancedco.com | +44 (0)345 894 7000

Advanced

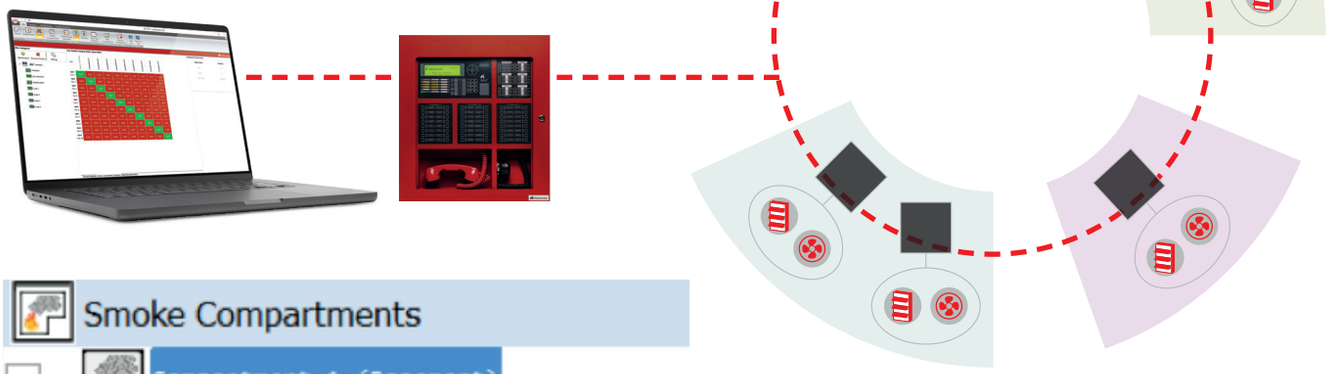
Market-Leading 4-Step Configuration

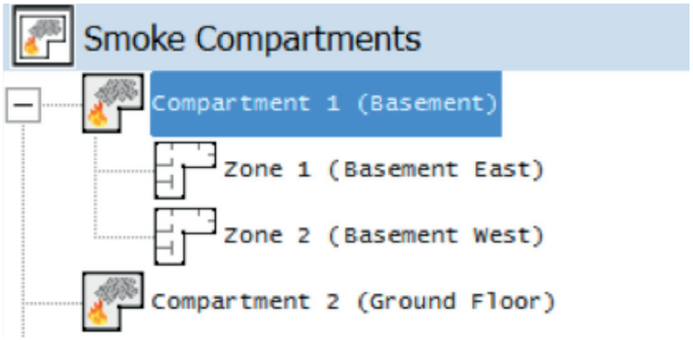
1

Quick, Clear Configuration of Smoke Compartments across Sites

Simply input the number of compartments you require, then assign the fire detection zone(s) you want to include per compartment.

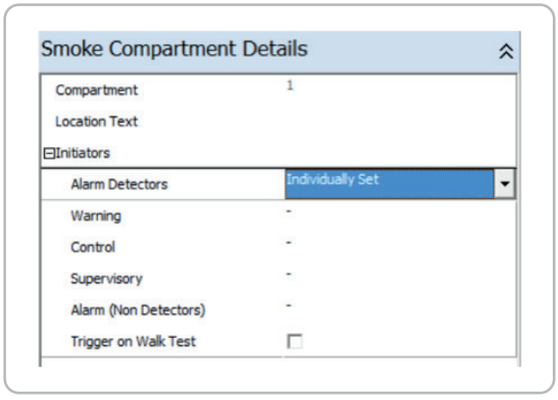
By default, any smoke detector in a zone assigned to a particular compartment will initiate smoke control.





In the above example, the default setting means any alarm from a detector in zones 1 or 2 will initiate compartment 1 smoke control.

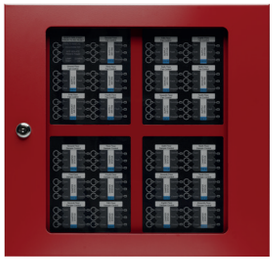
However, you can override this default setting to individually select which devices do, or do not, initiate smoke control.



4

Flexible Manual and Automatic Control Options

Integrated Panel Switch Cards **OR** Dedicated Switch Card Panel



Choose between integrated panel with switch cards or a dedicated switch card panel to provide manual and automatic options.

Each card can control up to six groups of, or individual, fans and dampers or fan/damper combinations.

Up to 15 fan and damper switch cards can be connected per node or per panel.

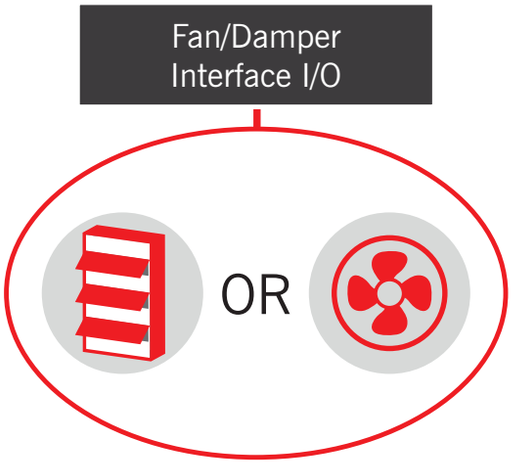
2

Auto-Configuration of Fan and Damper Interfaces

Define which loop (SLC) devices are used for smoke control and our software will configure the system for you.

The programming 'wizard' automatically defines each SLC based I/O module as a fan or damper control device and pre-configures them to run/stop or open/close. Our software even configures any required feedback delays, massively reducing configuration time.

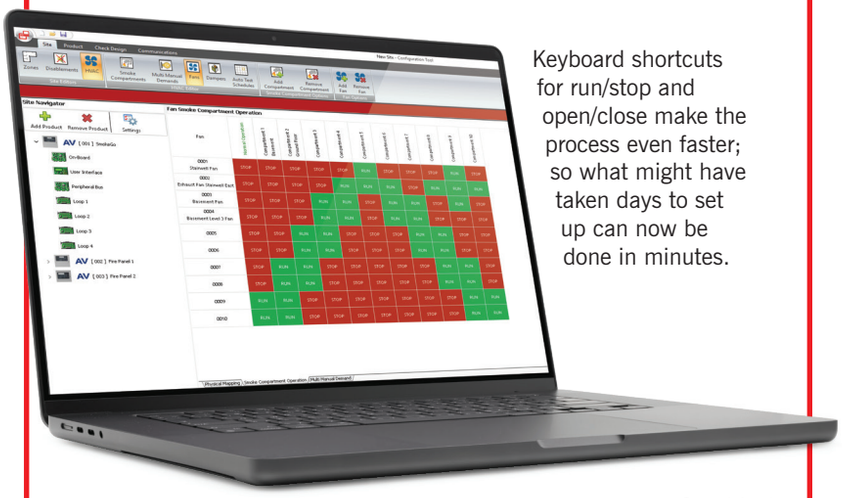
The system also allows standard SLC loop-powered I/O modules to be used for monitoring and controlling fans and dampers instead of expensive special purpose units.



3

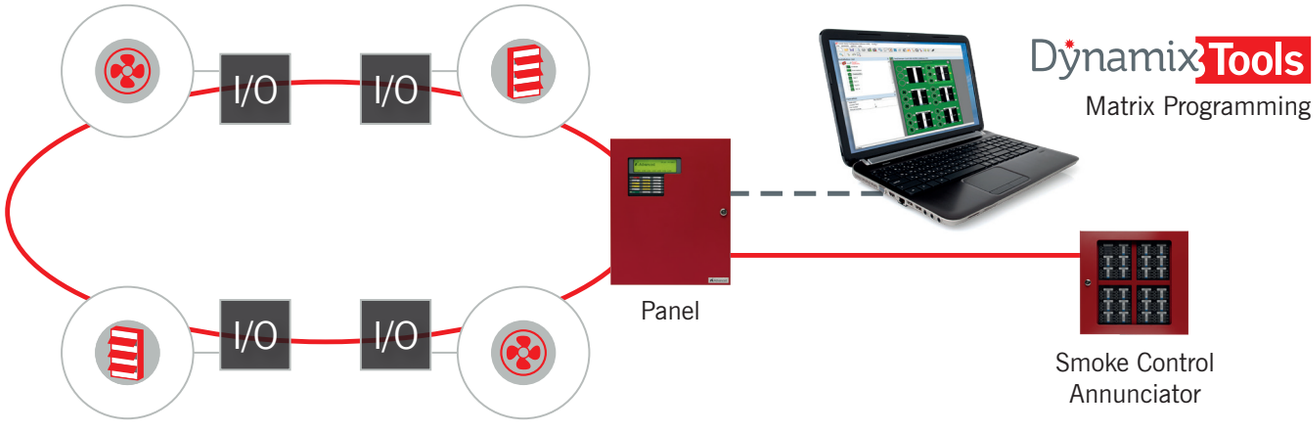
The Easiest Cause and Effect (CBE) Programming in the Business

Our unique mapping matrix makes light work of system setup. Graphical representations of the system along with a series of drop-down menus make programming quick and intuitive, plus there's no complicated and confusing software programming involved.



Keyboard shortcuts for run/stop and open/close make the process even faster; so what might have taken days to set up can now be done in minutes.

Graphical Programming



Customizing Options

Post-Alarm Purge

You can easily program DynamixSmoke to allow smoke to be manually cleared (purged) from an area of a building following a fire event.

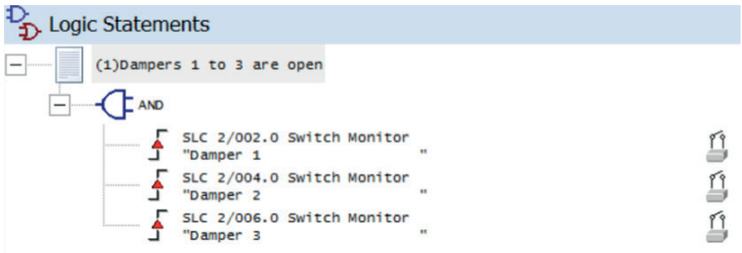
Any number of switches can be configured for different areas of the building so that they run/stop, and open/close the required combination of fans and dampers, allowing smoke to be cleared when it is permissible to do so.

An enable purge button or key switch can also be configured which has to be operated (e.g. by the fire fighter in control) before any manual controls can take place. In this way, independent purging panels can be constructed using dedicated switch cards.

Interlocks

An Interlock can be used to prevent a fan from running until certain conditions are met.

This ensures that dampers are in the correct state before any fans are allowed to run. This important feature is invaluable in preventing over-pressurization of ducts and is simple to set up via the DynamixSmoke feature in the configuration software.



In this example, fan 1 is interlocked with dampers 1, 2 and 3. The fan will not attempt to run until feedback is received that all three dampers are open. The fire alarm control panel will only instruct the fan to start once the interlock logic is satisfied.

Cascade Option

Sometimes it is necessary to prioritize the safe containment or extraction of smoke in critical areas of buildings in the event of a spreading fire.

With DynamixSmoke set to 'no cascade' as standard*, the system only responds to the first smoke compartment in alarm.

Subsequent alarms in different compartments do not cause fans and dampers to change state. Whereas using the cascade feature allows the fans and dampers to change their state according to pre-configured priorities as smoke spreads into different compartments of a building.

*Note: Smoke control cascading is a selectable option and is not permitted under the UL-864 Standard.

Automatic Stairwell Pressurization

It is quick and easy to program cause and effect for stairwell pressurization. Just select if you require automatic only, manual or both types of device to trigger the fans and dampers.

Fan Physical Mapping

Fan	Fan Location Text	IO Module Node.SLC.Addr	IO Module Zone No	Fan Interface	Startup Delay (seconds)	Feedback Delay (seconds)	Duct Probe A Node.SLC.Addr	Duct Probe B Node.SLC.Addr	Activate For Any Alarm
0001	Level 1	1.1.1	1	B	0	30			Cat A or B
0002	Level 2	1.1.3	2	B	2	30			

Damper Physical Mapping

Damper	Damper Location Text	IO Module Node.SLC.Addr	IO Module Zone No	Damper Interface	Feedback Delay (seconds)	Closed Limit Switch	Open Limit Switch	Activate For Any Alarm
0001		1.2.1		L	30	Yes		Cat A or B
0002				1	30	Yes	Yes	

Simple Sequential Fan Restart

In buildings without smoke control systems, it is common for any fans (used by building HVAC systems) to be shut down in the event of an alarm to prevent the spread of smoke and fire.

Fan Physical Mapping

Fan	Fan Location Text	IO Module Node.SLC.Addr	IO Module Zone No	Fan Interface	Startup Delay (seconds)
0001	Level 1	1.1.1	1	8	0
0002	Level 2	1.1.3	2	8	2
0003	Level 3	1.1.5	3	8	4
0004	Level 4	1.1.7	4	8	6
0005	Level 5	1.1.9	5	8	8
0006	Level 6	1.1.11	6	8	10
0007	Level 7	1.1.13	7	8	12
0008	Level 8	1.1.15	8	8	14
0009	Level 9	1.1.17	9	8	16

When the alarm is reset, there's a risk of overloading the electrical supplies if all fans are re-started simultaneously. To prevent this issue, the DynamixSmoke feature can start them sequentially using a programmable startup delay time for each individual fan.

Custom Smoke Control Annunciators

Where local codes stipulate the need for a Custom Graphic Smoke Control Annunciator, our I/O 48 module provides an ideal solution.

Customized to meet your needs, programming is easily achieved using our DynamixSmoke feature, giving fire fighters clear and simple manual control of the smoke control system via a series of key switches and LED indicators.

Multi Manual Demands

The multi manual demands function allows manual override of automatic settings within a particular smoke compartment via switch cards, key switches or push buttons.

The option to manage the smoke control settings of groups of fans and dampers, rather than individual devices can save considerable time.

Automatic Testing (dedicated systems)

In systems where fans and dampers are dedicated to the purpose of smoke control, periodic testing is crucial to ensure that they will work as expected in an emergency.

You can program automatic tests to run weekly or monthly on specific days of the week or at certain times of day – to meet the standards required in your area.

If you choose to test the entire system simultaneously, the panel automatically staggers the tests to ensure dampers are in the correct state before fans are run and to avoid excessive current draw.

Alternatively, you can program tests to run in groups so that not all fans and dampers are activated at the same time. This can help minimize disturbance to a building's occupants.

Testing only occurs if the system is in its normal, automatic state. You can also program tests not to occur - for example outside of vacation periods, to avoid additional engineer call-out fees.

Automatic Test Schedules

	Schedule 1	Schedule 2	Schedule 3	Schedule 4
Time and Day				
Time	08:00 AM	09:00 AM	08:30 AM	09:00 AM
Day	Monday	Monday	Monday	Monday
Week				
All	☐	☐	☐	☐
1st	☑	☐	☐	☐
2nd	☐	☑	☐	☐
3rd	☐	☐	☑	☐
4th	☐	☐	☐	☑
Month				
All	☑	☑	☑	☑
January	☑	☑	☑	☑
February	☑	☑	☑	☑
March	☑	☑	☑	☑
April	☑	☑	☑	☑
May	☑	☑	☑	☑
June	☑	☑	☑	☑
July	☑	☑	☑	☑
August	☑	☑	☑	☑
September	☑	☑	☑	☑
October	☑	☑	☑	☑
November	☑	☑	☑	☑
December	☑	☑	☑	☑

Fire Fighter Smoke Control Reset

Following an alarm, fans and dampers can return to their normal state as soon as the alarm is reset.

Alternatively, DynamixSmoke allows the system to be configured to have a separate independent smoke control reset button.

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