Gokan OS / Open Orisin Protocol

Fire OS - System Architecture

Subtitle
A Distributed Fire OS for Controlling the Connection and Separation of Combustion Conditions

1. Objective

- To prevent the simultaneous connection of conditions required for combustion
- To manage fire risk not as an event, but as a state
- To achieve separation of combustion conditions without reliance on human judgment

2. Core Components.

① Fire Node (Combustion State Node)

Fire Nodes are installed in spaces, equipment, or zones where combustion may occur.
They function in coordination with existing infrastructure rather than as standalone systems.
Fire Nodes do not handle combustion itself, but instead manage the state of combustion conditions.

② Condition Layer

The three elements that constitute combustion are treated as independent layers:

- Fuel layer
- Oxygen layer
- Heat layer

By separating these layers, the conditions required for combustion are structurally invalidated.

③ Separation Mechanism

- Mechanisms designed to ensure that the three elements are never simultaneously connected
- Based on state transitions rather than continuous control
- Separation may occur through physical, spatial, or temporal means

The goal is not to extinguish fire, but to prevent combustion from being established.
This does not negate firefighting technologies; it extends intervention to the pre-combustion stage.

④ State Monitoring

- Continuous monitoring of state changes in each condition layer
- State transitions are triggered before risk thresholds are reached
- Operates autonomously, without human intervention

3. Process Flow

1. Monitor the state of each combustion condition layer
2. Detect potential simultaneous connections
3. Automatically separate one or more condition layers
4. Maintain a state in which combustion cannot be established

4. Scalability

- Small scale: Homes and individual equipment
- Medium scale: Buildings and facilities
- Large scale: Urban districts and infrastructure

By adjusting the number and placement of nodes,both the management scope and separation granularity can be controlled.

5. Environmental Impact and Safety

- No direct harm to humans or equipment
- No secondary disasters induced
- Capable of staged shutdown or isolation during abnormal conditions

6. Conclusion

Fire OS does not treat combustion as a terminal event.

It is a state management OS that transfers high-energy conditions

into the next phase of circulation rather than allowing them to terminate as destruction.

7. Open Declaration (Open ORISIN Protocol)

This OS and the ORISIN principle framework are released freely to the world.

Individuals, researchers, and organizations may implement, modify, and extend it without restriction.

Author: Gokan OS

Protocol: Open ORISIN

Contact: contact@gokanos.com