

**Functional description:**

1. Utilizes a client-server architecture, primarily for viewing and modifying node operational status, parameter configuration, and designing/configuring the user interface—simple and efficient.
2. Supports real-time batch modification of node names, types, gateways, IP addresses, and other attributes online.
3. Supports online batch upgrades for node versions, with input and output components capable of mutual upgrades to accommodate uncertain project volumes and enable flexible configuration.
4. Supports custom modification of output resolution to accommodate the specific resolution requirements of LED displays.
5. Supports input node OSD settings, allowing display of input node name, time, station logo, etc., with dual station logo display capability.
6. Supports audio input/output settings, allowing selection of audio input/output interface types, encoding formats, and mixing options.
7. Supports configuring the IP display for large-screen output nodes, making it easy to view the IP address corresponding to each screen.
8. Supports color adjustment settings for output nodes: brightness, contrast, hue, saturation, etc.
9. Supports automatic recognition of extended display identifiers via EDID
10. Supports modification of the original base map for output nodes, allowing any base map to be set for project visualization.
11. Supports online restart and factory reset for all nodes. Directly configure the IPC's RTSP address to stream video from the IPC.
12. The management platform and operations system's UI interface and functions can be freely modified and configured via drag-and-drop functionality to accommodate the diverse requirements of project sites.