

Zone Control Simplification & n8n Tab Restoration - Summary

Overview

Successfully simplified the zone control interface for bartenders and restored the n8n workflow automation tab in the AI Hub.

Changes Implemented

1. Zone Control Simplification for Bartenders

Modified Files:

- `src/components/AudioZoneControl.tsx`
- `src/app/remote/page.tsx`

Key Features:

- **Bartender Mode:** Added `bartenderMode` prop to AudioZoneControl component
- **Single Master Slider:** When in bartender mode, zones with multiple outputs (Main + Sub) display ONE master volume slider
- **Proportional Control:** Master slider adjusts both main and sub outputs proportionally
- **Visual Feedback:** Shows current output levels as read-only reference below the master slider
- **Admin Mode Preserved:** Audio Control Center retains detailed individual output controls

Implementation Details:

New Function: `handleMasterVolumeChange`

- Calculates average volume across all outputs
- Applies volume delta proportionally to all outputs
- Sends individual update commands to Atlas processor
- Provides optimistic UI updates with error recovery

UI Changes:

- Bartender Mode (Remote Page):
 - Single large master volume slider
 - Displays average volume percentage
 - Shows individual output levels as reference
 - Clean, simple interface for quick adjustments
- Admin Mode (Audio Control Center):
 - Detailed expand/collapse controls
 - Individual sliders for each output (Main, Sub)
 - Full control over each amplifier output
 - Technical view for configuration

2. n8n Workflow Automation Tab Restoration

Modified Files:

- `src/app/ai-hub/page.tsx`

Key Features:

- **New Tab Added:** n8n workflow automation tab in AI Hub
- **Embedded Interface:** Full n8n workflow editor embedded via iframe
- **Direct Access:** Links to open n8n in new tab and documentation
- **Integration Info:** Details about system integration points and capabilities

Implementation Details:

Tab Configuration:

- Updated TabsList from `grid-cols-5` to `grid-cols-6`
- Added Workflow icon from lucide-react
- Tab order: Assistant → Teach → Devices → n8n → Configuration → Keys

n8n Tab Content:

- Embedded iframe pointing to `http://24.123.87.42:5678`
- Workflow capabilities section highlighting automation features
- Integration points section listing Atlas, Matrix, Sports APIs, and webhooks
- Quick access buttons for external navigation

Access Points

Bartender-Facing Zone Control:

- **URL:** `http://24.123.87.42:8888/remote`
- **Tab:** Audio tab in the Remote Control page
- **Features:** Simplified single master volume slider per zone

Admin Zone Control:

- **URL:** `http://24.123.87.42:8888/audio-control`
- **Tab:** Zone Control tab in Audio Control Center
- **Features:** Detailed individual output controls with expand/collapse

n8n Workflow Automation:

- **URL:** `http://24.123.87.42:8888/ai-hub`
- **Tab:** n8n tab in AI Hub
- **Direct Access:** `http://24.123.87.42:5678`

Technical Architecture

Zone Control Flow:

1. **Bartender adjusts master slider** →
2. **handleMasterVolumeChange calculates delta** →
3. **Updates all outputs proportionally** →
4. **Sends API requests to Atlas processor** →
5. **UI updates optimistically** →
6. **Error recovery if requests fail**

Atlas Communication:

- Endpoint: `/api/audio-processor/control`
- Action: `output-volume`

- Parameters: processorId, zone, outputIndex, value, parameterName

Deployment Details

Commit Information:

- **Branch:** main
- **Commit:** 9eeb063
- **Message:** "feat: Simplify zone control for bartenders and restore n8n tab"

Files Changed:

1. `src/app/ai-hub/page.tsx` - Added n8n tab
2. `src/app/remote/page.tsx` - Enabled bartender mode
3. `src/components/AudioZoneControl.tsx` - Implemented master volume control
4. `ZONE_OUTPUT_GROUPS_IMPLEMENTATION.pdf` - Documentation

Deployment Steps Completed:

1. ☒ Code changes committed to GitHub
2. ☒ Changes pushed to main branch
3. ☒ SSH connected to remote server (24.123.87.42:224)
4. ☒ Git pull executed successfully
5. ☒ Dependencies verified (npm install - up to date)
6. ☒ PM2 process restarted (sports-bar-tv-controller)

Server Status:

- **Application:** Online and running
- **PM2 Process:** sports-bar-tv-controller (PID: 61872)
- **Port:** 8888
- **n8n Service:** Running on port 5678

Testing Recommendations

Zone Control Testing:

1. Navigate to Remote page → Audio tab
2. Verify single master slider is displayed for multi-output zones
3. Adjust master slider and confirm both Main and Sub outputs change proportionally
4. Test mute functionality
5. Verify output levels are displayed for reference

Admin Control Testing:

1. Navigate to Audio Control Center → Zone Control tab
2. Verify expand/collapse functionality works
3. Test individual output sliders
4. Confirm detailed controls are available

n8n Tab Testing:

1. Navigate to AI Hub
2. Verify n8n tab is visible and accessible

3. Check embedded iframe loads properly
4. Test “Open n8n in New Tab” button
5. Verify documentation link works

Benefits

For Bartenders:

- ☒ Simplified interface - ONE slider instead of multiple
- ☒ Quick volume adjustments during busy times
- ☒ No risk of accidentally unbalancing Main/Sub levels
- ☒ Clean, intuitive UI

For Administrators:

- ☒ Full detailed control preserved in Audio Control Center
- ☒ Individual output adjustment capabilities
- ☒ Technical configuration access
- ☒ n8n workflow automation restored

For System Integration:

- ☒ Proportional volume control maintains audio balance
- ☒ n8n workflows can automate audio/video operations
- ☒ Webhook endpoints available for external integrations
- ☒ Atlas processor communication maintained

Future Enhancements

Potential Improvements:

1. Add preset volume levels (e.g., “Quiet”, “Normal”, “Loud”)
2. Implement volume scheduling via n8n workflows
3. Add volume change notifications
4. Create zone groups for simultaneous control
5. Add voice control integration via n8n

Conclusion

All objectives successfully completed:

- ☒ Zone control page simplified for bartenders
- ☒ Single master slider controls both Main and Sub outputs
- ☒ n8n tab restored in AI Hub
- ☒ Changes deployed to production server
- ☒ Application running without errors

The bartender-facing interface is now significantly simpler while maintaining full administrative control for technical users. The n8n workflow automation tab provides powerful automation capabilities for the sports bar operations.

Deployment Date: October 23, 2025

Status:  COMPLETE

Version: 14.2.33