

Mock Data Audit and Removal Plan

Issues Identified

1. Incorrect Default Port Configuration

- **Files Affected:**
 - `src/lib/atlasClient.ts` - Line 57: Uses port 23 as default
 - `src/lib/atlas-tcp-client.ts` - Line 16: Uses port 23 as default
 - `src/app/api/audio-processor/control/route.ts` - Lines 93, 117, 141, etc.: Uses port 23 fallback
- **Problem:** Port 23 is for Telnet, but the Atlas AZMP8 uses port **5321** for TCP control
- **Correct Port:** 5321 (as confirmed by user and screenshot)

2. Mock Data in Seed Scripts

- **Files Affected:**
 - `scripts/seed-atlas.js` - Creates mock processor with wrong configuration
 - `scripts/seed-audio-zones.js` - Creates zones for mock processor

- **Mock Data Details:**

```
javascript
// seed-atlas.js contains:
name: 'Atlas IPS-AD4',           // WRONG: Should be AZMP8
model: 'IPS-AD4',               // WRONG: Should be AZMP8
ipAddress: '192.168.1.51',      // WRONG: Should be 192.168.5.101
port: 80,
zones: 4                        // WRONG: Should be 8 for AZMP8
```

3. Inconsistent Message Termination

- **Files Affected:**
 - `src/app/api/audio-processor/[id]/input-gain/route.ts` - Lines 106, 157: Uses `\n` instead of `\r\n`
- **Problem:** Atlas protocol requires messages to be terminated with `\r\n`, not just `\n`
- **From Atlas PDF:** "All messages sent to the AZM4/AZM8 must be newline delimited, i.e. `\r\n` as the last 2 characters"

4. Missing Atlas-Specific Logging

- **Problem:** No dedicated logger for Atlas communication
- **Current Logging:** Only `console.log` statements scattered throughout code
- **Required:** Comprehensive logging to `~/Sports-Bar-TV-Controller/log/atlas-communication.log`

Fixes to Implement

Fix 1: Update Default Port to 5321

Files to modify:

1. `src/lib/atlasClient.ts`
2. `src/lib/atlas-tcp-client.ts`
3. `src/app/api/audio-processor/control/route.ts`

Change:

```
// OLD:
port: config.port || 23

// NEW:
port: config.port || 5321
```

Fix 2: Remove/Update Mock Seed Scripts

Option A (Recommended): Delete seed scripts as they create incorrect mock data

Option B: Update with correct values for real processor:

```
name: 'Atlas AZMP8',
model: 'AZMP8',
ipAddress: '192.168.5.101',
port: 80,
tcpPort: 5321,
zones: 8
```

Fix 3: Fix Message Termination

File: `src/app/api/audio-processor/[id]/input-gain/route.ts`

Change all instances:

```
// OLD:
client.write(JSON.stringify(command) + '\n')

// NEW:
client.write(JSON.stringify(command) + '\r\n')
```

Fix 4: Add Atlas Communication Logger

New file: `src/lib/atlas-logger.ts`

Features:

- Log all connection attempts
- Log all commands sent to Atlas
- Log all responses received
- Log errors and timeouts
- Write to dedicated file: `log/atlas-communication.log`

Fix 5: Update TCP Port in Database Schema/Migrations

Ensure the `audioProcessor` table has a `tcpPort` field (default 5321)

Verification Steps

1. ☒ No mock processors in database after fixes
2. ☒ All TCP connections use port 5321 by default
3. ☒ All messages use `\r\n` termination
4. ☒ Logging captures all Atlas communication
5. ☒ Code compiles without errors
6. ☒ Real Atlas connection works on production

Real Hardware Configuration

According to user and documentation:

- **IP Address:** 192.168.5.101
- **TCP Control Port:** 5321
- **HTTP Web Port:** 80
- **Model:** AZMP8 (8-zone)
- **Username:** admin
- **Password:** 6809233DjD\$\$\$

Atlas Protocol Requirements (from PDF)

1. JSON-RPC 2.0 Format:

json

```
{"jsonrpc": "2.0", "method": "set", "params": {"param": "ZoneGain_0", "val": -38.4}}
```

2. **Message Termination:** All messages must end with `\r\n`
3. **Parameter Indexing:** 0-based (Zone 1 = ZoneGain_0, Zone 2 = ZoneGain_1, etc.)
4. **Methods:** set, bmp (bump), sub (subscribe), unsub (unsubscribe), get
5. **Parameter Ranges:**
 - SourceGain: -80 to 0 dB
 - ZoneGain: -80 to 0 dB
 - Mute: 0 or 1

Next Steps

1. ☒ Implement all fixes
2. ☒ Test locally for compilation
3. ☒ Commit and push to GitHub
4. ☒ Deploy to production server (24.123.87.42)
5. ☒ Test real Atlas connection
6. ☒ Monitor logs for proper communication

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