UID Fix Debug Session Summary

Problem Identified

Issue: User 'andre' UID 1000 verification fails when the user already exists with the wrong UID.

Root Cause: The build script detected the wrong UID but only warned, didn't fix it.

Fix Implemented

Enhanced UID Fix Logic

File: `imgbuild/moode-cfg/stage3/03-ghettoblaster-custom/00-run-chroot.sh`

Changes:
1. **Remove Conflicting Users:** If UID 1000 is taken by another user (e.g., 'pi'), remove that user first
2. **UID Fix Attempt:** Try `usermod -u 1000` first, then delete/recreate if needed
3. **Post-Fix Setup:** Always set password and groups after any UID fix
4. **Comprehensive Logging:** 21 debug log points added for verification

Code Logic

```
# When user exists with wrong UID:
1. Check if UID 1000 is available
2. If available: Try usermod, then delete/recreate if needed
3. If taken by another user: Remove that user, then fix andre UID
4. After fix: Set password and groups
5. Verify: Check final UID is 1000
```

Debug Instrumentation

Debug Log Location: `/tmp/debug.log` (in chroot), copied to accessible locations at end

Log Points:
• User existence check
• UID availability check
• User creation attempts
• UID fix attempts (usermod/recreate)
• Conflicting user removal
• Password/group setup
• Final UID verification

All logs tagged with:
• `sessionId: "debug-session"`
• `runId: "run1"` (or "post-fix" for verification)
• `hypothesisId: "A"`, "B", or "C" (for hypothesis tracking)

Build Infrastructure Issues

Problem: Docker Desktop on Apple Silicon not properly emulating amd64

Attempted Fixes:
1. ■ Dockerfile: Added `--platform=linux/amd64`
2. ■ docker-compose.yml: Has `platform: linux/amd64`
3. ■ START_BUILD_36.sh: Added `DOCKER_DEFAULT_PLATFORM=linux/amd64`
4. ■ Changed `./build.sh` to `bash build.sh`
5. ■ Rebuilt Docker image with amd64 platform

Remaining Issue: Docker Desktop requires Rosetta 2 enabled for x86_64/amd64 emulation (UI setting)

Status

Fix Code: ■ Implemented and ready
Debug Logging: ■ Active (21 log points)
Verification: ■ Waiting for successful build to generate runtime logs

Next Steps

1. Enable Rosetta 2 in Docker Desktop settings (if not already enabled)
2. Run build: `sudo ./START_BUILD_36.sh`
3. Monitor for user creation section (after 20-40 minutes)
4. Extract and analyze debug logs
5. Verify fix worked: Look for "■ User 'andre' has correct UID 1000"
6. Remove instrumentation after verification

Files Modified

• `imgbuild/moode-cfg/stage3_03-ghettoblaster-custom_00-run-chroot.sh` - Enhanced UID fix logic
• `Dockerfile.build` - Added `--platform=linux/amd64`
• `START_BUILD_36.sh` - Added platform environment variable and `bash build.sh`

Verification Criteria

Success Indicators:
• ■ "■ User 'andre' has correct UID 1000 (moOde compatible)" in output
• ■ No "■ ERROR: User 'andre' has UID X" errors
• ■ Debug logs show successful UID fix path
• ■ Final verification log shows `"andreUID": "1000"`

Failure Indicators:
• ■ "■ ERROR: User 'andre' has UID X" in output
• ■ Debug logs show UID fix failed
• ■ Final verification shows wrong UID