

CineFlux-AutoXML Dependency Update Summary

Changes Made

1. Created Backup

- Successfully created a backup of the original `package.json` as `package.json.backup`

2. Missing Dependencies

- Installed missing development dependencies:
- `eslint-config-prettier`
- `@jest/globals`
- `ts-morph`

3. Security Vulnerabilities

- Fixed security vulnerabilities by updating:
- `vite` from version `5.4.19` to `6.3.5` (major version update)
- This resolved the moderate severity vulnerability in `esbuild`

4. WebAssembly Dependencies

- No updates needed for WebAssembly dependencies:
- `@ffmpeg/core` (v0.12.10)
- `@ffmpeg/ffmpeg` (v0.12.15)
- `@ffmpeg/util` (v0.12.2)
- `@techstark/opencv-js` (v4.10.0-release.1)

5. Minor Version Updates

- Updated the following dependencies:
- `zustand` from `4.5.2` to `4.5.7`

6. Type Definition Updates

- Updated React type definitions:
- `@types/react` from `18.2.43` to `18.3.21`
- `@types/react-dom` from `18.2.17` to `18.3.7`

Current Status

Security Status

- All security vulnerabilities have been resolved
- `npm audit` now reports 0 vulnerabilities

Outdated Packages

Several packages are still outdated but would require major version updates:

- React ecosystem:
 - `react` and `react-dom` (`v18.3.1` → `v19.1.0`)
 - `@testing-library/react` (`v14.3.1` → `v16.3.0`)
 - `@types/react` and `@types/react-dom` (`v18.x` → `v19.x`)
- TypeScript ecosystem:
 - `@typescript-eslint/eslint-plugin` and `@typescript-eslint/parser` (`v6.21.0` → `v8.32.1`)
- Testing tools:
 - `cypress` (`v13.17.0` → `v14.4.0`)
- Linting and formatting:
 - `eslint` (`v8.57.1` → `v9.27.0`)
 - `eslint-plugin-react-hooks` (`v4.6.2` → `v5.2.0`)
 - `lint-staged` (`v15.5.2` → `v16.0.0`)
- UI libraries:
 - `tailwindcss` (`v3.4.17` → `v4.1.7`)
 - `lucide-react` (`v0.507.0` → `v0.511.0`)
- Utilities:
 - `uuid` (`v9.0.1` → `v11.1.0`)
 - `zustand` (`v4.5.7` → `v5.0.4`)

Build Status

- The build is currently failing with numerous TypeScript errors

- These errors are not related to the dependency updates but are pre-existing type issues in the codebase
- The errors include:
 - Type mismatches
 - Missing properties
 - Unused variables
 - Import errors
 - Re-export conflicts

Recommendations

1. **Fix TypeScript Errors:** The project has numerous TypeScript errors that need to be addressed. These are not directly related to the dependency updates but will prevent successful builds.
2. **Incremental Major Version Updates:** For the remaining outdated packages, consider updating them one by one with thorough testing after each update:
 - Start with non-breaking or less impactful updates like utility libraries
 - Update React and its ecosystem as a coordinated update
 - Update TypeScript and related tools together
3. **WebAssembly Dependencies:** The WebAssembly dependencies (`@ffmpegpeg` and `opencv-js`) are currently up to date. Any future updates to these should be done with extra caution and testing.
4. **Testing Strategy:** Develop a comprehensive testing strategy before updating to React 19, as this will likely require significant changes to the codebase.
5. **Documentation:** Keep track of all dependency updates and their impacts in a changelog to help with future maintenance.