

System Engineer 8 v1.0.17.0

Release Date: 28th November, 2025

Overview

This release focuses on robustness and stability improvements through comprehensive null checking and exception handling enhancements. Critical fixes address threading issues, connection validation, and database error handling to deliver a more reliable application.

Highlights

Null Checking & Validation

- Added null check for Modules Observer to prevent null reference exceptions.
- Implemented null connection checking before accessing connection properties.
- Added null OEM ID handling to prevent invalid configuration scenarios.
- Enhanced element type validation before attempting to access parent information.

Exception Handling & Error Recovery

- Improved handling of background database exceptions for more graceful error recovery.
- Implemented exception handling for rejected connections to provide clearer error context.
- Enhanced exception handling for failed connection scenarios.
- Fixed database exception handling to prevent cascading failures.

Threading & Synchronisation

- Resolved cross-thread access issues to _items collection that caused exceptions.
- Forced firmware update UI view model creation onto UI thread to ensure proper collection synchronisation.
- Fixed visual tree element detection to prevent threading-related rendering issues.

UI & Configuration Management

- Set data templates to non-shared to prevent shared state conflicts.
- Fixed initial session item last accessed value handling during startup.
- Fixed Name Scope casting and visual tree issues in UI components.

Logging & Diagnostics

- Normalised output impedance logging for improved diagnostic consistency.

This release delivers enhanced application stability and reliability through focused robustness improvements.