Software Demo Release Note Version 2.0

Automated Modbus Data Extraction Tool

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1   Introduction

This document provides the release notes for the Demo 2.0 release of the RsLogix 500 Modbus Extraction Tool. It outlines the changes and improvements of this release. Note that in order to run the software on your local computer, a RsLogix 500 Pro must be installed and activated.

2   New Features

- Added a software status bar so that the user can easily track the status of the software.

- Redesigned coil mapping logic. Added a new coil logic analyzer module.

- Added support for register translation table with multi-threading. The user can also use the default one or load their own one.

- Added find invalid mapping button feature to display and export invalid many-to-one and one-to-many mappings.

3   Improvements and Bug Fixes

- The UI window now adapts to different window sizes.

- The UI winodw now does not hide into background after closing a pop-up window.

- Now in data grid view, when clicking the column headers, sorting is correctly performed.

- Fixed the extension missing issue when performing mappings.

- Fixed coil mapping EQU-OR logic.

- Redesigned coil mapping SWP logic.

- Updated AddrSolver module to make it work better.

- Added two more mapping patterns to the register logic analyzer.

4 New Software Structure

As mentioned in the new features section there are a couple of new modules/classes added into the software.

4.1 CoilLogicAnalyzer

This module analyzes the logic of a parse tree and extracts any coil mapping information in it. This is done by pattern matching. In other words, this module needs to be updated if more patterns are found in future RSS files.

5 Benchmark

In this release, five benchmark files are also released along with the software. In the benchmark excel files, results are manually compared to the modbus address files. Descriptions are not compared since most of them are missing. Only tag names are compared and are classified by colors into the following three types:

- Green: the tag name is correct.

- Yellow: the tag name is incorrect, but it is about to be fixed or just need some sample instructions from Neel to be fixed.

- Red: the tag name is incorrect, and I have no idea how to fix at the moment.

The following table draws a concolusion of this benchmark test.

Table 1: Benchmark

Software Name	Correct Registers	Correct Rate	Correct Coils	Correct Rate
SW2012	33/33	100%	267/272	98.0%
SW2014	25/40	62.5%	311/313	99.4%
SW2031	31/46	67.4%	314/326	96.3%
SW2046	25/75	52.0%	522/539	96.8%
SW2084	39/60	65.0%	398/424	93.9%

6 Feedback

Please feel free to test the software and share your feedback if you encounter any malfunctions or crashes. The process of debugging is extensive and demanding, aimed at releasing stable and robust software. Your feedback plays a crucial role in this process and is greatly appreciated.