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SIEMENS OPEN LIBRARY

2 – Initial Setup

OCTOBER 11, 2016

Contents

1. Purpose

The purpose of this document is to provide a guide for the initial use of the Siemens Open Library. The steps contained in this document should be done before attempting to use any library object, or the compilation of the project will result in errors.

2. Intended Use

This document is intended to be the starting point by anyone utilizing the Open Library for PLC and HMI Development.

3. Revision History

Version	Date	Author	Comments
1.0	2016-05-23	DMC	Initial Release
1.1	2016-06-20	DMC	No Changes
1.2	2016-08-23	DMC	No Changes
1.3	2016-10-11	DMC	No Changes

4. Open Library License

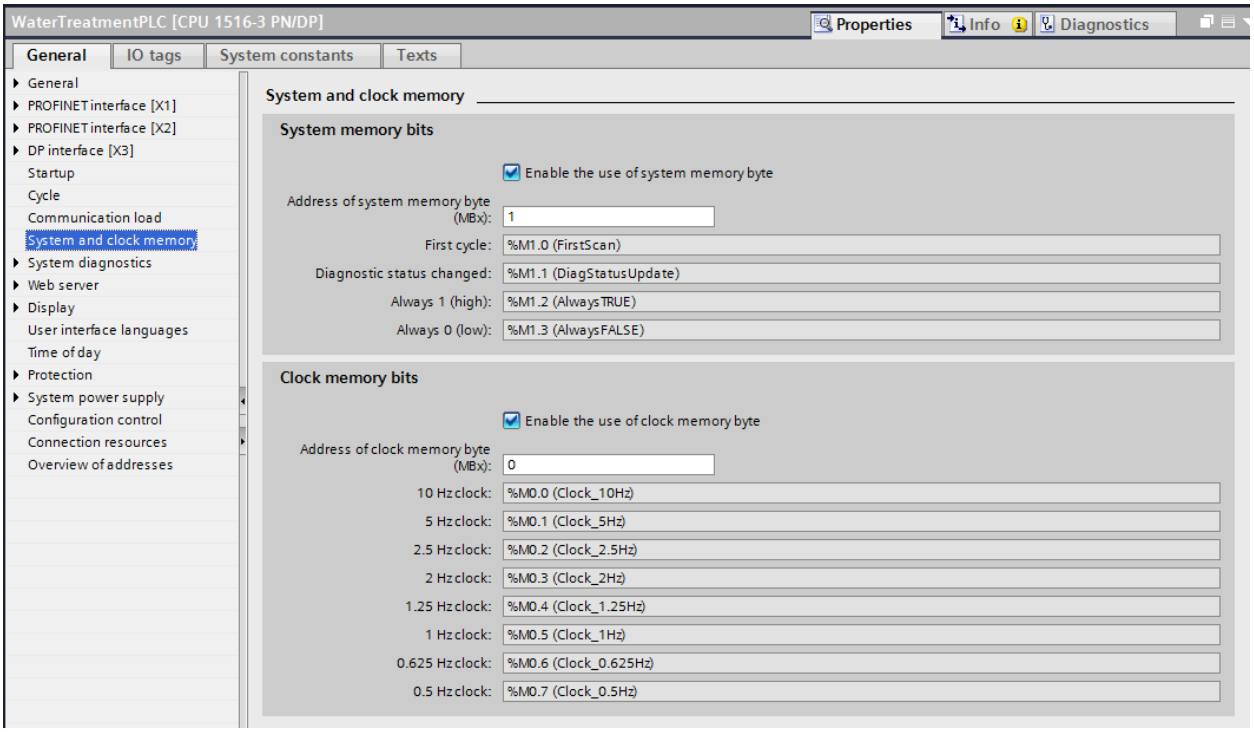
5. Hardware and Software Compatibility

This library was developed in TIA Portal V13 SP1. It has been tested on the S7-1200 and S7-1500 platforms, and untested modifications have been made for compatibility with S7-300 and S7-400. The PLC objects can be used with any HMI, however, the configuration of the faceplates is only available using a Comfort Panel or WinCC Advanced, and have been tested on a 7" Comfort Panel.

6. System and Clock Memory Bytes

The Open Library Blocks utilize the System and Clock memory bits, which will need to be enabled for the library objects to compile. This will need to be done for each processor that uses the Siemens Open Library. To enable the System and Clock Memory Bytes, complete the following steps.

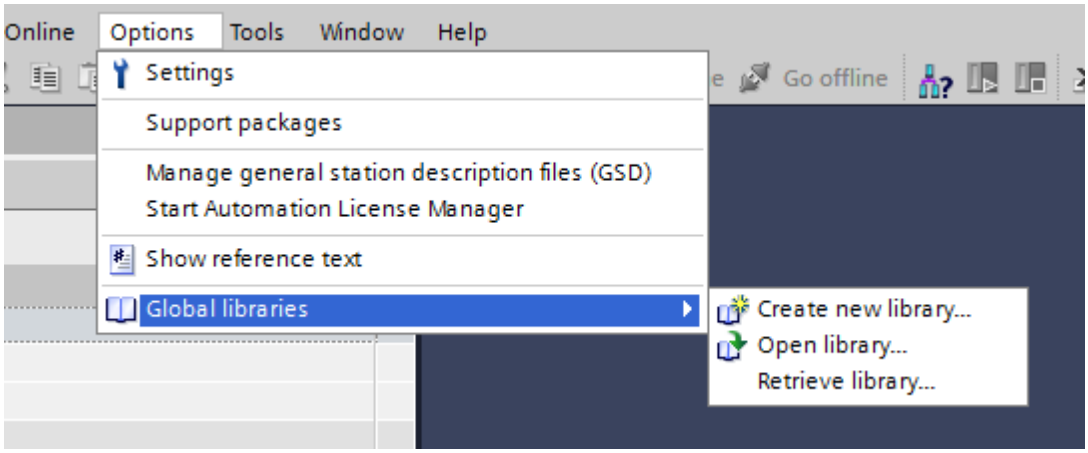
1. Open the Hardware configuration and select the processor that will be using the library objects.
2. Right click and select 'Properties'
3. In the Properties, find the 'System and clock memory' settings and click the Enable check box for both the 'System memory bits' and the 'Clock memory bits'
4. The addresses can be changed, as all items are accessed symbolically.



7. Retrieve Open Library

The provided library is an archive file and needs to be retrieved and opened. This only needs to be done once for any computer being used for development. Complete the following steps to open the library:

1. In the file menu of TIA Portal, select Options -> Global libraries ->Retrieve library…

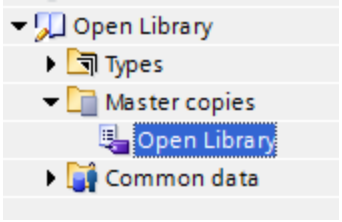


2. Select a place on the development machine to store the library. This will be the place any changes made will also be saved.
3. By default, the Open Library will open as read only. If edits need to be made, close the library, open it again, and deselect the 'Read-only' checkbox.

8. Add Tag Table

The Open Library uses many constants to provide meaningful names to values that are regularly used. The library will not compile without the tag table added into the project. To add the tag table, complete the following steps:

1. Inside the 'Master copies' of the Open Library, navigate to the 'Open Library' tag table.



2. Drag the 'Open Library' tag table from the Master copies into the 'PLC tags' of the controller using the Open Library.