

## DL6000-MEDH+ MODBUS Mapping, Reading data values From Integer, Floating point & binary files of Allen Bradley PLC5

Below as shown we mapped :

10 words from Integer file N7 starting at word 0 to Registers 40001-40010

10 words from Floating point file F8 starting at word 10 to registers 40011-40020

1 word from Binary file B3 to register 40021

1 word from Binary file B12 to register 40022

16 bits of word 0 from Binary file B12 to Coils 1-16

16 bits of word 0 from Binary file B12 to input Status 1-16

**Configure Online Parameters**

**quustek SOLUTIONS INC.**  
EQ32 Configuration Software  
DL6000

Welcome Screen  
Welcome / Open Configuration

Modbus Parameters  
Protocol Settings  
Address Mapping  
Finalize Settings  
Apply Settings

### Address Mapping

The following mapping table is used for mapping Modbus Registers and Coils to Allan-Bradley Datafiles.

Slot	Modbus Start	Modbus End	Allan-Bradley Datafile		Floating
	Address	Address	File	Word	Point
1	40001	40010	7	0	<input type="checkbox"/>
2	40011	40020	8	0	<input checked="" type="checkbox"/>
3	40021	40021	3	0	<input type="checkbox"/>
4	40022	40022	12	0	<input type="checkbox"/>
5	1	16	12	0	<input type="checkbox"/>
6	10001	10016	12	0	<input type="checkbox"/>
7					<input type="checkbox"/>
8					<input type="checkbox"/>
9					<input type="checkbox"/>
10					<input type="checkbox"/>
11					<input type="checkbox"/>
12					<input type="checkbox"/>
13					<input type="checkbox"/>
14					<input type="checkbox"/>

Next 14 Slots -->

Below are screen shots of data values of Integer file N7, Floating point File F8, Binary file B3 and Binary file B12 of the PLC5 that we are planning to read from the MODBUS side.

Integer file N7

**File N7 (dec)**

Offset	0	1	2	3	4	5	6	7	8	9
N7:0	850	1700	2550	850	850	850	850	850	850	850
N7:10	850	850	850	850	850	850	850	850	850	850
N7:20	850	850	850	850	850	850	850	850	850	850

N7:0      Radix: Decimal  
 Symbol:      Columns: 10  
 Desc:

N7      Properties      Usage      Help

### Floating File F8

The screenshot shows a window titled "File F8" with a table of values. The first row, labeled "F8:0", contains the values 534519.3, 1069039, 1603558, 2138077, and 2672597. These values are highlighted with a red box. Below the table are input fields for "F8:0", "Symbol:", and "Desc:". At the bottom, there are buttons for "Properties", "Usage", and "Help".

Offset	0	1	2	3	4
F8:0	534519.3	1069039	1603558	2138077	2672597
F8:5	0	0	0	0	0
F8:10	0	0	0	0	0

### Binary File B3

The screenshot shows a window titled "File B3 (bin)". The table displays binary data for "B3:0" and "B3:1". The "B3:0" row contains 16 bits: 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 0, 1, 1, 0, 1. These bits are highlighted with a red box. Below the table are input fields for "B3/0", "Symbol:", and "Desc:". The "Radix" is set to "Binary" and "Columns" is 16. Buttons for "Properties", "Usage", and "Help" are at the bottom.

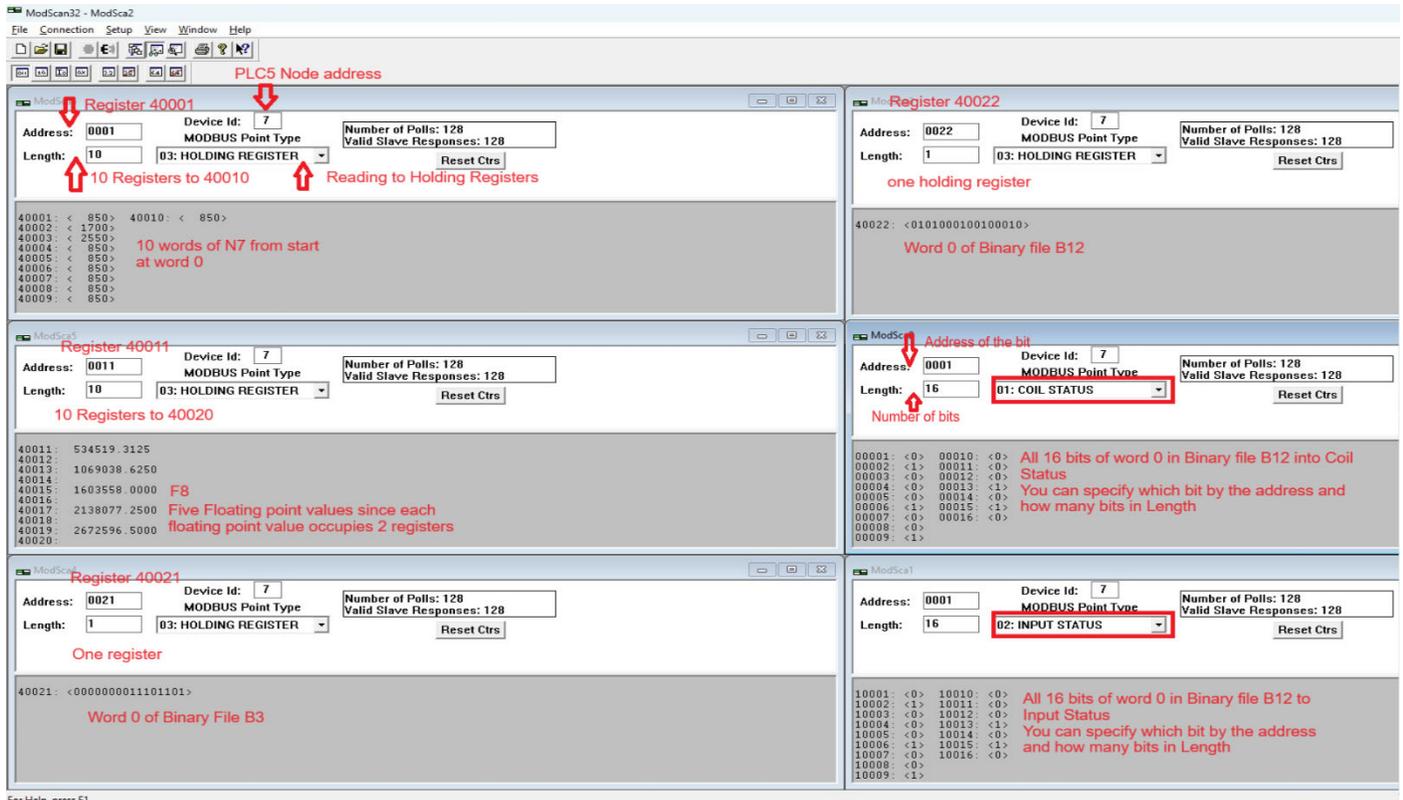
Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
B3:0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	1
B3:1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

### Binary File B12

The screenshot shows a window titled "File B12 (bin)". The table displays binary data for "B12:0". The "B12:0" row contains 16 bits: 0, 1, 0, 1, 0, 0, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0. These bits are highlighted with a red box. Below the table are input fields for "B12/15", "Symbol:", and "Desc:". The "Radix" is set to "Binary" and "Columns" is 16. Buttons for "Properties", "Usage", and "Help" are at the bottom.

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
B12:0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	1	0

Using MODSCAN as a MODBUS master we see here that we were able to read from those files shown as for Binary we see that we can use either Holding register when we need all 16 bits or use Coil Status or Input Status when specific bits are needed.



## MODBUS COMMAND CAPABILITIES

The DL6000-MEDH+ firmware module is compatible with the following Modbus commands: -

DH+ Modbus

Station #	Command Code	Command Description	Address
1-63	01	Read Coil Status	00001 - 09999
1-63	02	Read Input Status	10001 - 19999
1-63	03	Read Holding Register	40001 - 49999
1-63	04	Read Input Register	30001 - 39999
1-63	05	Force Single Coil	00001 - 09999
1-63	06	Pre-set Single Holding Register	40001 - 49999
1-63	16	Pre-set Multiple Holding Registers	40001 - 49999
00	05,06,16	Broadcast Command	

Note: Modbus command 15 (Force Multiple coils) is not available in slave mode.