**FS-8705-49**

**Emmerson ROC TLP**

**Ethernet Driver**

**Also known as**

**ROC 180/181 Driver**

# Description

This Ethernet driver implements ROC Opcode services 180 and 181. It supports all (non-text) parameters of all possible Point Types (TLP’s) . The driver supports ROC legacy and ROC800. Using this driver the gateway can read and write data using TLP’s. The driver also supports the reading of data indirectly. Ie TLP’s can point to other TLP’s.

Driver supports various ROC devices.

Non-Plus – ROC300 Series with ROCPAC / FLASHPAC

Floboss 102 / 104 / 107 / 407 / 503 /504

RegFlow

ROC800 Devices

ROC800L

ROCplus

Production Manager

Well Optimization … And all other devices that have TLP tables.

Like other drivers this driver can be couple with any of the other 120+ protocols in our library. Thus ROC data may be monitored and controlled using Rockwell Family, Modbus Family , GE Family of protocols as well as BACNet family, Lonworks, SNMP, and many more building and automation protocols.


# Block Diagram

Multiple upstream protocols and connection supported. See list of FieldServer Drivers.



# Max Nodes Supported

|  |  |  |
| --- | --- | --- |
| **FieldServer Mode** | **Nodes** | **Comments** |
| Active Client | 20 | A max of ?? ROC devices per gatewayUpper limit is determined by gateway memory and speed. This has been tested with up to 20 devices. The same code used in another project supported hundreds of devices. |
|  |  |  |

# Formal Driver Type

Ethernet using TCP/IP

Active Client

This driver can also be used to emulate one or more ROC devices. Said another way. If you want a BACnet / Modbus / Rockwell etc device to respond to ROC messages – Chipkin has that covered.

# Compatibility Matrix

|  |  |
| --- | --- |
| **FieldServer Model** | **Compatible with this driver** |
| All legacy products (FS2010/4010/3510) | Yes, |
| All current products as at July 2020 | Yes, |
| EZ Gateways, QuickServer, Quickserver classic, Multiport Gateways | Yes, |
|  |  |

# Devices tested

|  |  |
| --- | --- |
| **Device** | **Tested (FACTORY, SITE)** |
| Various | 2020 Feb – Office Lab with purchased devices and software2020Jul – Customer site in US. Multiple types of devices. A large ROC network. |
|  |  |

# Driver is Future Proof

This driver has been written in such a way that should new devices or Point Types, the driver will be capable of supporting them without new firmware, simply by means of configuration.

# Services Supported

All options of Command, Query and Responses of each service supported

|  |
| --- |
| **Opcode** |
| 180 – TLP Read |
| 181 – TLP Write |
| 10,11,99 for read and write of indirect variables. |
|  |
| We have another driver which supports the other Opcodes. Ask our sales dept. |
|  |

**Data Type Supported**

Supports all known Data Types for ROC Plus, ROC800, ROC Legacy ….

The following table is updated from time to time on our web site. It is not updated int his document

Google “ROC by Chipkin DATA TYPES SUMMARY xls” to get the latest. There is support for proprietary vendor types too.

File maybe found here: <https://store.chipkin.com/articles/roc-by-chipkin-data-types-summary-xlsx>


# ROC Opcodes

# The Chipkin ROC Opcode driver is available. It can be coupled with this driver. Part number = 8705-50

# Support

# Please contact Chipkin Automation Systems directly for driver support.

# Revision History

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | **Resp** | **Format** | **Driver Ver.** | **Doc.****Rev.** | **Comment** |
| 2020Jul | PMC |  | 0.00 | 0 | Created. |
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