Migration Notes

EtherNet/IP Firmware V5

empowering communication

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Chapter 1 Introduction

1.1 About this document

This document briefly describes the changes between each two successive releases of this generation of the EtherNet/IP protocol firmware. For each new release the major differences compared to the previous release are documented. The intended audience is application software developers, testers and users. The range of topics is not limited, all user-observable changes may be described here, though this mostly should be about the packet API.

1.2 References

This document refers to the following documents:

[1]   Hilscher Gesellschaft fuer Systemautomation mbH: Protocol API, EtherNet/IP Adapter V5.4.0.4.

1.3 Purpose and General Migration Aspects

This document lists general changes between different releases and provides a rough survey of the changes. The purpose of this document is to serve as an aid for porting of host applications towards each version boundary. This list may not be comprehensive, nor contains information on firmware-internal changes. It just outlines, on a higher level of abstraction, those modifications interfering with the behavior of the host application. For an overview of the particular stimuli of each modification and further descriptions refer to the Release Notes document and the JIRA ticket database. Please also take into account the Protocol API Manual [1] for more detailed descriptions on the mentioned topics. Migration between each two versions is additive, i.e. migration between two versions X and Z may require two (or even more) successive migration steps: from X to Y and from Y two Z.

This document focuses on the EtherNet/IP-specific functionality of our host application and aids us through the process of migrating it between different firmware versions. It does not cover those aspects related to services and mechanisms which are not specific to the EtherNet/IP firmwares, but the underlying operating system, the netX hardware configuration and bootstrapping, the middleware services, the firmware startup and update procedures, the number of communication channels and the functionality provided on each of these channels. There have been major changes between the V3 and the V5 major versions regarding these basic building blocks. Please take into account that these changes are not covered by this document. For EtherNet/IP, behavior is kept consistent between V3 and V5 version pairs as follows:

Compatible Version V3 Generation	Compatible Version V5 Generation
V3.5.0.x	V5.1.0.x
V3.6.0.x	V5.2.0.x
V3.7.0.x	V5.3.0.x
V3.8.0.x	V5.4.0.x

NOTE | The migration notes have to be read in conjunction with those of the stack core component used by the firmware version.

Chapter 2 Migration Notes for the EtherNet/IP Firmware V5

2.1 Release V5.4.0.0

2.1.1 Web server's new feature User-Authentication requires user login

For UseCase-C firmwares, the integrated web server now offers the possibility for User Authentification (User DB). With this addition, it is no longer possible to perform a firmware update through the web server without logging in using a valid username/password. Further information can also be found in the firmware data sheet and the web server manual.

2.1.2 Trigger types are not mapped into Common Status Block

The trigger types set via `HIL_SET_TRIGGER_TYPE_REQ` are not mapped into the Common Status Block fields `bPDInSource`, `bPDOutSource` and `bSyncSource` anymore, i.e. these fields are now always zero. In order to read the current configured trigger types, the service `HIL_GET_TRIGGER_TYPE_REQ` shall be used instead.

This change has been introduced with ticket PSEISV5-358.

2.1.3 Incompatibility with netX90 chip revisions with a DateCode lower than 1910

Please consider the specific incompatibilities of this Firmware and all subsequent releases with older netX90 chip revisions.

This change has been introduced with ticket PSEISV5-264.

2.2 Release V5.3.0.0

No Migration Notes have been written for this Version

2.3 Release V5.2.0.0

No Migration Notes have been written for this Version

2.4 Release V5.1.0.0

No Migration Notes have been written for this Version