DiiA Guidelines

Firmware Update Checklist

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For any further explanation of the contents of this document, or in case of any perceived inconsistency or ambiguity of interpretation, please contact the DiiA:

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Document History

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Firmware Update Checklist

1 Introduction

This document provides a checklist to help assess the risk of updating the firmware of control gear and control devices in a running system.

If a bus unit does not operate as intended, a firmware update of a bus unit via the interface is beneficial.

This firmware update process is primarily designed to be a bug fix process, not a feature extension process. Nevertheless, the firmware update process can be used for feature extensions. However, it is important that the risk of negative effects to the complete system are considered in detail.

2 References

The following documents are adopted in whole, where the specification is implemented. The latest edition of the publication applies (including amendments) unless stated otherwise.

- IEC 62386-105 Ed.2 (in progress)

3 Terms and definitions

3.1   DiiA

Digital Illumination Interface Alliance

NOTE   Also known as the DALI Alliance.

4 Checklist

The following is an example of a check sheet that can be used for the firmware update of control gear. This can be used to manage the risk of updating control gear firmware in a live site. A similar checklist could be used when updating control devices.

Firmware update name			
Check sheet version		Date:	
Reason why firmware update is required *(bug fix, feature upgrade, consequences if update does not occur)*			
Control gear details	Manufacturer		
	Description (name)		
	Manufacture part ref.		
	GTIN		
	Identification/serial number range		
	Firmware range		
Location of gear *(in stock; installed; if installed, details of other gear on bus, type of installation)*			
Quantity of gear to be firmware updated			
Required conditions for firmware update *(Example: can other gear or other application controllers (multi-master bus) be connected to bus?)*			
Reference of new firmware (to be used in update)			

Details of suitable firmware update tools		
Behaviour of gear during update	Fully functional	
	No functionality – light levels unchanged (mask)	
	No functionality – lights Off	
	No functionality – lights On	
	Other – give details	
If emergency control gear (device type 1) firmware update, specifics to be detailed. (Example pre-, during and post- update: emergency test results, battery charge, failure status, mode status, post-update behaviour, example battery conditioning)		
Post firmware update: will commissioning activities be required? *(short and group addressing, scene settings)* If yes, give details.		
Detail actions and requirements concerning:-	Operating Mode (are manufacturer specific modes affected, give details)	
	Bus configuration	
	Built in bus power supplies (activation status)	
Brief description of firmware update process (method) *(including preparation, individual gear or by bus, by short address, group or broadcast, number of times firmware update will need to be run, serially or in parallel, hand-back details)*		
Length of time that update will require	Per single gear	
	For all gear	
Has a trial of this firmware update been successfully performed?		
If firmware update is at an installation, did firmware update trial simulate installed conditions? *(Example: other gear on bus, bus wiring)*		
If firmware update is at an installation and an emergency control gear (device type 1) is connected to the bus or the firmware update is on an emergency control gear (device type 1), detail emergency lighting system status relating to building/area occupancy during and 24 h after firmware update.		
If firmware update is for emergency control gear (device type 1) at an installation, is a recertification of the emergency lighting installation by the appropriate fire authority required?		
Where is the firmware update being performed?		
Who is to perform the firmware update?		
When is the firmware update to be performed? *(date + time window, if no functionality during update, fully functional working hand back deadline time)*		
If at an installation, what are the client's hand back criteria post firmware updates?		
If at an installation, have permits been obtained? Provide details.		
What are the contingency plans including:- *(likely occurrence and severity of the event to be considered, the risk)*	If first firmware update fails (power outage, etc.)	
	Firmware update is not successful and control gear subsequently has no bus control functionality.	
	Consideration of other gear on bus being affected by firmware update process	

Do any liability disclaimers need generating? *(if yes, give details)*	
Organization(s) responsible for firmware update costs *(provide details as appropriate)*	
Agreement approval for firmware update activity to proceed		

Gear manufacturer	End client	Organization performing the firmware update
Signature:	Signature:	Signature:
Name:	Name:	Name:
Organisation:	Organisation:	Organisation:
Date:	Date:	Date:

For more information, please contact us:

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The Digital illumination interface Alliance reserves the right to modify this document. The latest version shall replace all previous versions.