Profiles

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Interworking

Runtime Profiles

Summary

This document specifies the Profiles of features that are relevant for runtime Interworking.

Version 01.01.01 is a KNX Approved Standard.

This document is part of the KNX Specifications v2.1.

Document updates

Version	Date	Modifications
WGI214-01	2010.04.15	Document creation. New document based on the contents of WGI214-04 FB compliance for S-Mode devices.doc.
WGI2140-02	2010.04.19	See tracked changes: added FB IBS and FB ILS.
WGI2140-07	2011.12.05	Inclusion of feedback of WGI meeting of 2011.05.12. - Removed “Room Light Controller 2” - Removed FBs for which no FB Profile exists and removed column “yes”/”no”. Removal of Functional Blocks that do not contains FB profiles. Column “FB Profiles exist” consequently removed.
WGI214-08	2011.12.09	Inclusion of feedback of WGI meeting of 2011.12.09. - Added FBs for DALI. - Added syntax explanation and repeated used symbols.
	2012.03.08	Moved the syntax to the paper WGI237-05.
06/02 v01.00.00	2012.03.22	Creation of the Draft Proposal.
WGI214-09	2012.06.13	Proposal for resolution of comments from RfV.
06/02 v01.01.00	2012.11.07	Creation of the Draft for Voting.
06/30/01 v01.01.01	2013.11.29	Creation of the Approved Standard.

References

[01] Chapter 3/7/1 “Interworking Model”
[02] Volume 6 “Profiles”
[03] Volume 7 “Application Descriptions”

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Contents

1 Introduction

1.1 Goals and definition of Runtime Profiles

The goal of Runtime Profiles is to guarantee an expected level of Runtime Interworking between KNX products.

KNX defines standard solutions for certain applications, modelled as Functional Blocks. These are specified in [03].

Runtime Profiles specify what standard application level functionality shall be implemented in KNX devices. This is mainly done by specifying the mandatory to be implemented functionality of FBs. The main means of specifying Runtime Profiles are the FB Profiles.

In the case a standard KNX solution is defined for an application then this document may define or refer to mandatory features or combinations thereof.

1.2 Scope

This document does not specify the FB Profiles themselves. The FB Profiles are part of the FB specifications in [03]. This document solely lists all FBs and indicates whether any Runtime Profiles are specified.

This document focuses on the application aspects of the KNX products. Aspects that are related to the Configuration of KNX products or to the KNX communication stack until the Application Interface Layer are specified in [02].

Runtime Interworking requirements are not exclusively specified in this document. Please refer as well to the following papers.

- Chapter 3/7/1 “Interworking Model” ([01]) in general, and more specifically the “Meta-Rules for Interworking”.

  EXAMPLE 1 This document specifies for instance that if information is to be transmitted over KNX for which a standard DPT exists, that this standard DPT shall then be used. This applies even if for the functionality no FB or FB Profile exists.

1.3 Syntax

In the specification of any FB Profile, the following statements are possible, as listed in Table 1.

Table 1 – Syntax elements of the FB Profiles

Expression	Description
Functionality … { … }	Block definition
IF <condition> { … } ELSE { … }	if / else statement for the evaluation of conditions
SELECT 1 OF n { … }	One of a list has to be considered
// <*Text, italic*>	Comment, e.g. to clarify contexts

In addition, the symbols as uniquely defined in [02] shall apply.

In the FB Profiles, additionally the following notation style shall apply.

Symbol	Definition
GO	It is mandatory to implement this Datapoint and it shall be a Group Object.
(GO)	It is optional to implement this Datapoint as a Group Object.

2 FB Profiles

Table 2 lists the FBs for which FB Profiles exist. If an application realises functionality that is covered by this FB then it shall comply with the functionality of one FB Profile as marked in the FB specification.

NOTE 1 This concerns the functionality of the FB. For the coding of the data, S-Mode applications have to use standard DPTs if available.

Table 2 does not list FBs for which no FB Profile exists.

Volume 7 “Application Descriptions” ([03]) contains multiple specifications for HVAC Interworking in LTE-Mode. For these FBs, there is typically a “Standard Mode Interface” specified. This “Standard Mode Interface” shall be respected if the functionality is implemented that is standardised by this FB. These FB are not included in the list in Table 2.

Table 2 – List of FBs for which one or more FB Profiles exist

Interface Object Type	Functional Block	Abbrev.
	Chapter 7/1/1 “System Clock”	
1001	System Clock	SCLO
	Chapter 7/1/2 “Common Sensors”	
403	Scene Sensor	SCS
	Chapter 7/1/3 “Common schedulers and controllers”	
1010	Scene Controller	(none)
	Chapter 7/10/1 “HVAC Sensor Functional Blocks”	
320	Outside Temperature Sensor	OTS
321	Room Temperature Sensor	RTS
	Chapter 7/20/1 “Lighting Sensors”	
409	Indoor Brightness Sensor	IBS
410	Indoor Luminance Sensor	ILS
420	Dimming Sensor Basic	DSB
421	Switching Sensor Basic	SSB
414	Movement Detector for Lighting	MDL
	Chapter 7/20/2 “Lighting Actuators”	
417	Light Switching Actuator Basic	LSAB
418	Dimming Actuator Basic	LDAB
	Chapter 7/20/3 “DALI interfaces”	
440	DALI Proxy Basic Light Application	DPBLA
441	DALI Proxy Basic Scene Application	DPBSA
442	DALI Proxy Basic Device Specific	DPDS
	Chapter 7/50/1 “Shutters and Blinds Sensors”	
801	Sunblind Sensor Basic	SSSB
	Chapter 7/50/2 “Shutters and Blinds Actuators”	
800	Sunblind Actuator Basic	SAB

