Certification & Registration

- Update

Scott Wade, Technical & Certification Manager 28th June 2018



DiiA Certification & Registration webinar

- **Presenter:** Scott Wade, DiiA Technical & Certification Manager
- Presentation will last for approx. 40-45 minutes, followed by a Q&A session
- Ask a question \rightarrow please use the "Q&A" box on your screen"
- Technical issues \rightarrow please use the "Chat" box
- After the live events, we will provide the following on our website:
 - PowerPoint presentation
 - A recording of the webinar
 - Written answers to all questions asked during the webinar(s)
- If you have further questions after the event, please <u>click here</u> for contact information



Agenda

- 1. Certification now & next
- 2. IEC 62386 update
- **3.** Registration current status
- 4. Certification & registration
 - Updated products & family products
 - Combination, multi-bus and OEM products
 - Colour control gear
- 5. **DALI testing** test sequence software and plug-fests
- 6. Website product submission updates, database download, public search
- 7. FAQ
- 8. Q&A



1. Certification – current status

Products that can already be DALI-2 certified

- Control gear
 - LED drivers
 - Control gear that does not implement any part 2xx (e.g. converter)
 - Integrated bus power supplies not yet possible

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- Control devices
 - Single-master application controllers
 - Integrated bus power supplies allowed (with some additional manual testing)
- Bus power supplies
 - Requires some additional manual testing









1. Certification – coming next

- Products that can soon be certified
 - Control gear
 - Including those with integrated bus power supplies
 - Control devices
 - Multi-master application controllers
 - Bus power supplies
 - Simplification of testing
- In progress
 - Control gear: Part 209 colour control gear, colour types T_c and xy
 - Control devices: Input devices. 301 (push-button), 303 (occupancy sensor) already in beta testing
- Later
 - Part 202 (Emergency)





2. IEC 62386 update

- Parts 101, 102 and 103 amendment 1
 - Version 2.1
 - (May'18 pre-release of official publication)
- Recent publications:
 - Part 207 LED (Apr'18)
 - Part 216 Load referencing (Apr'18)
 - Part 217 Thermal gear protection (Mar'18)
 - Part 218 Dimming curve selection (Mar'18)
 - Part 221 Demand response/Load shedding (Jun'18)
 - Part 222 Thermal lamp protection (Apr'18)
 - Part 224 Non-replaceable light source (Mar'18)
 - Part 333 Manual configuration feature (Apr'18)
- DiiA now has an **official liaison** agreement in place with IEC 62386 WG11

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	IEC 62386 s	IEC 62386 standard						
	Red text = DALI-2 versions published	rt 101: Ge	neral requirements – System compor	nents				
	Part 102: General requirement Control gear		rt 104: General requirements – Wireless nd alternative wired systems In progress		General requirements – Control devices			
	Parts 2xx: Particular requiremen for control gear	ts	Part 105: General requirements – P Firmware update In progress		Parts 3xx: Particular requirements for control / input devices			
					Ŷ			
	Published: Part 201: Fluorescent lamps Part 202: Self-contained emergency lighting Part 203: Discharge lamps (excluding fluore: Part 204: Low voltage halogen lamps Part 205: Supply voltage controller for incan Part 205: Conversion from digital signal into Part 207: LED modules Part 208: Switching function Part 209: Colour control	escent lamps	Published: Part 216: Load referencing Part 217: Thermal gear protection Part 218: Dimming curve selection Part 222: Thermal lamp protection Part 224: Integrated light source In progress: Part 219: Power measurement Part 220: Centrally-supplied DC emergency operation Part 221: Load shedding Part 223: Light-output compensation over lifetime	Part 303: O Part 304: Li Part 332: In Part 333: M In progress	osolute input devices ccupancy sensors ght sensors put control devices - Feedback anual configuration : lative input devices			
8)	For Parts 207, 202 and others, DiiA adapts I version-1 test sequences for use with DALI-		Part 225: Colour Tc Part 226: Colour Tc Part 226: Colour xy		Updated: April 2018			

3. Registration – current status

- 1st June 2018
 - This was the deadline for registration of existing DALI version-1 products.
 - To continue using the DALI Trademark on products, it is necessary to register them.
 - There is no need to submit test results. For DALI version-1, members are confirming that the product has passed all tests, with allowed exceptions.
 - Keep the test results in-case we ask to see them.
- New DALI version-1 products
 - These can still be registered through your website account.
 - The end date for registration of DALI version-1 products, has not yet been decided.





Updating Registered or Certified Products Re-testing may be required

- Product information must be updated
- For changes to the firmware or hardware version numbers, contact the T&C Manager
- If the product part number or GTIN changes a new submission is required

Family products

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- At least one product in the family requires full testing the "family reference product"
- Other family members may require some testing
- Each family member requires submitting for Certification or Registration

4. Certification & registration

• See the *Product Submission Guide* for more details on the following:





4. Certification & registration

- See the *Product Submission Guide* for details on the following:
- **Combination and multi-bus products**
 - Multi-bus: Full testing is required on at least 2 of the DALI interfaces
 - Additional requirements for products with integrated, switchable DALI bus power supplies.

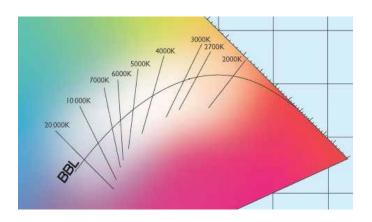
OEM/ODM products

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- The company whose name or brand appears on a DALI/DALI-2 Trademarked product, must be a DiiA member.
- That company is responsible for registering or certifying the product. •
- Testing may be carried out by that company, or the original manufacturer/designer, or a test-house.



4. Certification & registration



- Colour control gear (part 209, DT8)
 - A temporary exemption is granted for the part 209 testing, allowing DALI version-1 Trademark use provided the product is registered and all other tests were complete successfully.
 - Once official part 209 tests are released, testing and certification will be necessary.
 - See the *Trademark Guidelines for Members* for full requirements.



5. DALI testing

• Current release is 2.0.6.0 for DALI-2 and 1.1.5.0 for DALI version-1



- Beta testing of a new version is almost complete
 - Updates to DALI-2 tests for parts 101-103
- The new version also includes an update of the ProbitLab and ProbitLab2 firmware.
 - The update resolves a problem seen by a small number of members, where Probit could perceive short glitches on the DALI bus.
- A DiiA "Guide to DALI testing" is in development.
 - This will include setting-up and use of the Probit system, hints, tips and an FAQ.
- Beta testing of additional tests for input devices and colour control gear is also in progress
 - The following screen images show the extensions for these beta tests.



5. DALI testing – mediator toolbox

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Mediator toolbox

- Already built-in to ProbitBench
- Useful for control gear testing

Mediator rootbox - br 303					
Basic					•
Configuration		Query		Memorybanks	
Reset	Identify Device	Qu	ery all	Read Bank 0 Reset All	Bank Address
Actual Level to DTR0		Actual Level	Physical Min Level	Read Bank 1 Reset Bank 1	0 0
Max Level 254	Power On Level 254	Max Level	Power On Level	Read Bank X Reset Bank X	Write Mem. 255
Min Level 1	Sys. Failure Level 254	Min Level	Sys. Failure Level	Clear Bank Readout	Read Mem.
Fade Time 0 (no fade) 💌	Extended 0 (0 ms) V x1 V		Extended	Address Value	Description
Fade Rate 7 (44.7/s) 💌	Fade Time 0 (0 ms)	Fade Time / Rate	Fade Time		
Scene Level scene 0 255		Scene Levels			
Add to Group group 0 Remove from Group		O 1 2 Groups 8 9 10	3 4 5 6 7 11 12 13 14 15		
Operating Mode 0	Short Address 1	Operating Mode	Random Address		
Arc Power					
	•••••••••••••••••••••••••••••••••••••••	Device Type	Next Device Type		
254 Stop fade (DAPC 255)	On and Step Up	Light Source Type	Version Number		
DAPC 254 Recall Max	Up Step Up	Content DTR0/1/2			-
DAPC 1 Recall Min	Down Step Down	Status	Control Gear Present		
DAPC 0 Off	Step Down and Off	Control Gear Failure	Lamp Failure	Addressing	
	- Go to Scene	Lamp Power On	Limit Error	Detect number of assig	aned addresses
Go to Last 0 1 2	3 4 5 6 7	Reset State	Missing Short Addr.	Unassign all ad	dresses
Active Level 8 9 10	11 12 13 14 15	Power Failure	Manu. Spec. Mode	Assign addresses (una	ddressed only)



5. DALI testing – 301 beta tests

Madiator Taalbox DD 202

- Courtesy of zencontrol
- Push-button input device
- Implemented using Lichtvision's macro interface for extensions to ProbitBench.

EC 62386-301 Push Butto		Evpected	Regult), Library Version: 1.0.6731.305
 ☑ IEC 62386-301 Push Buttons Test Suite ☑ T301.4 Event Filter ☑ T301.5 Input Value and Resolution ☑ T301.3 Send Twice Timeout ☑ T301.2 Reset-Power On Values ☑ T301.1 Range of NVM Variables ☑ T301.0 Default Values 	Test Step Loaded Test Suite: IEC 62386-301 Push Buttons Test Suite	Expected	Result	Comment	
Run					



5. DALI testing – 303 beta tests

- Courtesy of Loytec
- Occupancy sensor input
 device
- 303 allows two types of occupancy sensor:
 - Movement sensors
 - Presence sensors
- Tests are currently for movement sensors only.
- Implemented using Lichtvision's macro interface for extensions to ProbitBench.

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Mediator Toolbox - BP 303				I _ 6 X
c Macro Control - Test303.dll				•
estsequences	Test Parameters	Yes/No	Manual Mode	
reamble 1.1 RAM / NVM variables	Auto PHY Error	⊙Yes ◯No ◯n.a.	Apply Movement Cycle Apply Physical Sensor Error	
1.2 ROM variables	PHY Error Switch	4 😇		
1.3 Hold Timer unexpected values	Movement Switch	1 🕂		
1.4 Catching 1.5 Send twice timeout	Occupancy Switch	2 📫		
2.1 Query Input Value	Warm-up time	15 芸 sec		
2.2 Vacant by canceling Hold timer	Movement hold time	15 🔹 sec		
3.1 FSM- Movement	Min movement delay	500 🗮 ms		
3.2 FSM- Presence 4.1 Event during state transition	Sensor type	Movement		
4.2 Report events		Capabilities		
4.3 Restarting the report timer	Feature manual cfg.	tReport tHold tDeadtime		
4.4 Catching Notifications				
5.1 Event priority 5.2 Event priority for repeat events	Test Control			
5.3 Replaced events by bus unavailability	Test Log			
5.4 Replaced events by deadtime timer				
5.5 Event Scheme				
6.1 Physical sensor failure				
7.1 Feature manual configuration	Save Log (Clear Log		
8.1 Hold Timer	Abort Test			
8.2 Report Timer				

5. DALI testing – 209 beta tests

• Courtesy of zencontrol

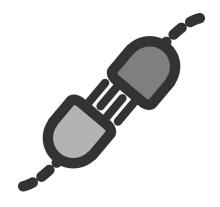
Colour control gear

- 209 (Device Type 8) allows 4 colour types:
 - colour temperature T_c
 - xy chromaticity
 - RGBWAF
 - primary N
- Tests are currently for T_c colour type only
- Implemented using Lichtvision's macro interface for extensions to ProbitBench.

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Mediator Toolbox - BP 303					٥	_ 6
Macro control - Pt209TestMacro.dll						ľ
IEC 62386-209 Colour Con	trol Test Suite (Ed. 1.0)			Test Versio	n: 1.0.6731.30510, Library Version: 1.	0.6731.30510
IEC 62386-209 Colour Control Test Suite (Ed. 1.0) T12.2.1.1 Reset T12.7.1.1 Query Colour Status T12.7.1.3 Query Colour Type Features T12.7.1.4 Query Colour Type Features T12.7.1.3 Query Colour Value T12.7.1.4 Query Colour Value T12.7.3.5 Enable Device Type: Application Ext T12.7.3.6 Device Type: Application Ext T12.7.4.3 DT8 Activate (Tc Only) T12.7.5.1 Query Extended Version Number T12.7.5.2 Reserved Application Extended Com T12.7.2.4 Store Colour Temperature Tc Limit T12.7.2.5 Store Gear Features / Status T12.7.2.6 Automatic Activate (Tc Only) T12.7.2.10 System Failure T12.7.2.11 Store The DTR As Scene XXXX / Q	Test Step Loaded Test Suite: IEC 62386-209 Colour Control Test Suite (Ed. 1	D)	Result	Comment		
Run						
Clear Export						

5. DALI testing – Plug-fests



- We hold plug-fests for T&C Working Group members
 - The fourth plug-fest is scheduled for Lüdenscheid in September 2018
 - We prioritise testing of products that don't yet have official released tests.
 - Current examples include colour control gear and input devices.

• Plug-fest for all members

- Early discussions, but proposal is to hold an event in early 2019
- Dates, location and other details are not yet decided





6. Website – product submission form

- New "Technical" information:
 - Bus current consumption (part 102/103, test 12.3.4)
 - Guaranteed supply current (bus power supply)
 - Maximum supply current (bus power supply)
- **Product properties**
 - Basic properties automatically determined from the part 102, 103, 2xx
 - Additional properties need to be manually selected
 - Examples:

Modify product properties for Platinum series II LEI Driver 20W	D Modify product properties for Platinum series II LED Driver 20W
This product has the following parts: 102, 207	This product has the following parts: 102, 207, 209
 ☑ Control gear ☑ LED □ Bus powered □ Bus power supplies Save <u>Cancel</u>	 Control gear LED Colour control Colour type xy coordinate Colour type Tc Bus powered
C Digital Illumination	Bus power supplies Save Cancel
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Technical	
Bus current consumption [mA]:	
Guaranteed supply current [mA]:	
Maximum supply current [mA]:	

6. Website – product submission form

- Application controller properties
 - Many options
 - Describe features that the application controller provides
 - Example: Support for Colour control (part 209, DT8)
 - Additional tick-boxes for the supported colour types

This product has the following parts: 101, 103 Application controllers Supports DALI version-1 control gear Supports DALI-2 control gear More than one DALI bus supported Bus powered Support for event messages from input devices Support for other application controllers on the same bus Support for Push-buttons (part 301) Support for Switches/sliders (part 302) □ Support for Occupancy sensors (part 303) Support for Light sensors (part 304) Support for generic input devices □ Support for Self-contained emergency (part 202, DT1) Support for Discharge lamps (part 203, DT2) □ Support for Low voltage halogen (part 204, DT3) specific features Support for Incandescent dimmer (part 205, DT4) specific features □ Support for Conversion to DC (1-10V) interface (part 206, DT5) specific features □ Support for LED (part 207, DT6) specific features □ Support for Switching (part 208, DT7) specific features Support for Colour control (part 209, DT8) Supports colour type xy coordinate Supports colour type Tc Supports feedback from control gear (including lamp failure feedback) Provides support for addressing or grouping of control gear Support for features of connected control devices: Feedback (332) and/or Manual configuration (333) Input devices Bus power supplies Cancel Save



6. Website – database download (coming soon)

- **Download of public content** of the product database
 - For Regular and Associate members
 - XLSX format
 - System software can read the GTIN from the memory bank of each discovered product
 - Together with the XLSX data, this can allow automatic identification of product information such as: brand, product name, part number and other public information

Certified and Registered Products

Certified products have successfully completed the DiiA certification process for DALI-2.

Registered products are DALI version 1 products that have been successfully tested by the member or a test-house

- Download of member's own product information
 - Also XLSX format
 - Contains all products belonging to the member
 - Includes products not yet Certified or Registered
 - Includes information not available to the public

Product Search	Showing products 1-7						
select brand 🔹	7 results total						
Part number	Brand Name	Product Name	DALI Parts	Registration Date	DALI 2 Certified		
Product name	Osram	<u>01</u>		Sep 29, 2017	Yes		
	TM brand2	Tim's test product	102.207	Sep 29, 2017	Yes		
Include registered DALI version-1 & ersion-0 products	Dynalite	DDBC120-DALI	<u>102, 207</u>	Jul 3, 2017	Yes		
Include discontinued products	Osram	testi		Jun 28, 2017	Yes		
Product ID	TM brand2	LED170626	102.207	Jun 26, 2017	Yes		
GTIN	TM brands	ProdName4	102.207	Jun 23, 2017	Yes		
Control gear	TM brand2	My DALI-2 Product Name 003	<u>102, 207</u>		Yes		
Application controllers							



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6. Website – product search (public)

- Product search now allows filtering by specific properties.
- Each selected property will narrow the search results.
- The example shown will search for only application controllers that also have an integrated bus power supply.
- It is important when products are submitted for Certification or Registration that all of the features supported by the product are correctly selected.
- Search by GTIN will be added soon.

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Control gear Application controllers Supports DALI version-1 control gear Supports DALI-2 control gear More than one DALI bus supported Bus powered Support for event messages from input devices Support for other application controllers on the same bus Support for Push-buttons (part 301) Support for Switches/sliders (part 302) Support for Occupancy sensors (part 303) Support for Light sensors (part 304) Support for generic input devices □ Support for Self-contained emergency (part 202, DT1) Support for Discharge lamps (part 203, DT2) Support for Low voltage halogen (part 204, DT3) specific features Support for Incandescent dimmer (part 205, DT4) specific features Support for Conversion to DC (1-10V) interface (part 206. DT5) specific features Support for LED (part 207, DT6) specific features □ Support for Switching (part 208, DT7) specific features Support for Colour control (part 209, DT8) Supports feedback from control gear (including lamp failure feedback) Provides support for addressing or grouping of control gear Support for features of connected control devices: Feedback (332) and/or Manual configuration (333) Input devices Bus power supplies Guaranteed supply current > 100 mA Maximum supply current < 250 mA</p> Search





• Can we still register DALI version-1 products?

- Yes! The deadline of 1st June 2018 was for existing DALI version-1 products, but if any have not yet been registered, or new DALI version-1 products are developed, these need to be registered. The end date for registration of DALI version-1 products, has not yet been decided.
- Can the DALI logo be used on products designed for DALI-2?
 - Yes, on control gear, but the product **must be submitted for certification** as with all DALI-2 products.
- "Do we need to buy a ProbitLab 2 for DALI-2 testing?"
 - For control gear that does not have an integrated bus power supply, the ProbitLab 1 is fine.
 - For control devices, or bus power supplies or any product with an integrated bus power supply, ProbitLab 2 is necessary.







- I can't submit a product due to a problem with the GTIN.
 - Ensure the GTIN is valid, owned by your company, and has not already been used for another product submission.
- We make a product for another DiiA member, how do we certify it with their brand?
 - The member whose brand is shown on the product must submit it for certification through their own DiiA account. However, the test results from the original manufacturer may be used.
- We make products that are identical except for the brand. Do these need unique GTINs?
 - Yes, each product needs a unique GTIN, whether the brands belong to the same member, or to a different member. Testing can be much reduced see the *Product Submission Guide*.







- We have updated the firmware/hardware in our product do we need to re-test?
 - You must determine if there are any tests that are at risk due to the changes, and re-run these tests. Once successful, the firmware/hardware versions in your product entry can be updated. See the *Product Submission Guide*. Contact the Technical & Certification Manager if you need clarification.
- DALI version-1: "Is the original DALI logo allowed on control devices such as sensors?"
 - No these must pass the DALI-2 tests and be certified. There are no DALI version-1 tests for control devices.
- What is "Community registration"
 - For luminaire manufacturers using DALI or DALI-2 marked products from DiiA members
 - Not suitable for manufacturers of control gear, control devices or bus power supplies they must become a Regular or Associate member.





We are now open for questions!

If you have **further questions**, please contact:

- **Technical**, test or certification questions:
 - DiiA Technical & Certification Manager:
- Marketing:
 - DiiA Marketing Manager:
- **Membership** or general questions:
 - DiiA General Manager:

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