ProbitLine Update Webinar

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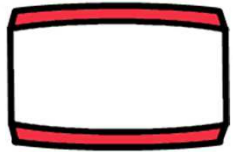
Karsten Heinrich
Rijo Kavalakkatt

Performance and Reliability for
connected lighting and building IoT
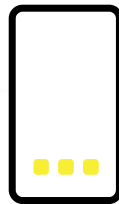
www.lichtvision-engineering.com
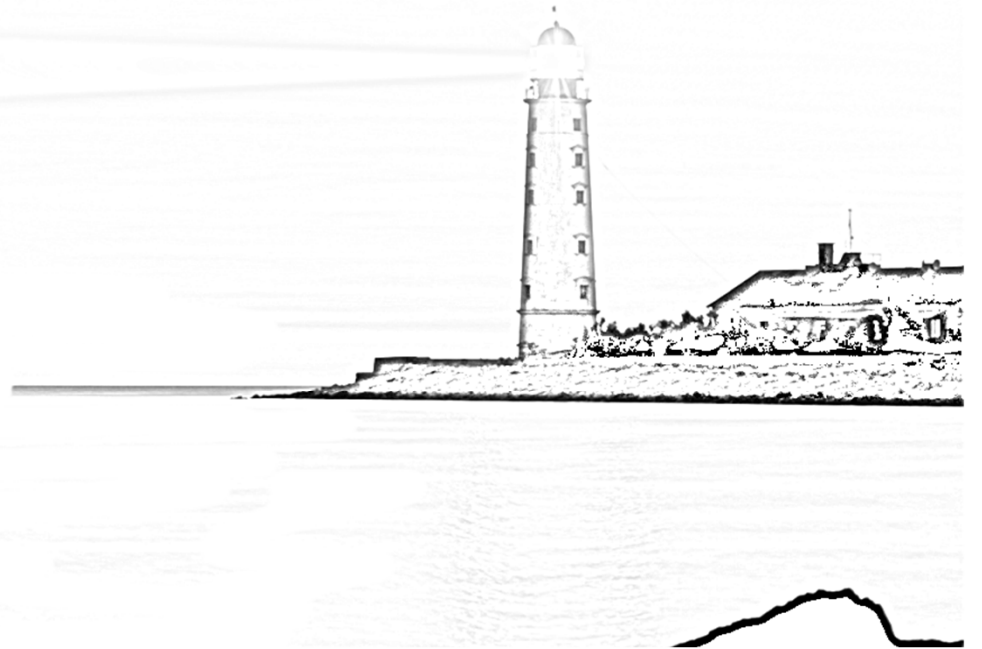
ProbitLine Update Webinar

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ProbitGears

ProbitSite

ProbitLine Update Webinar
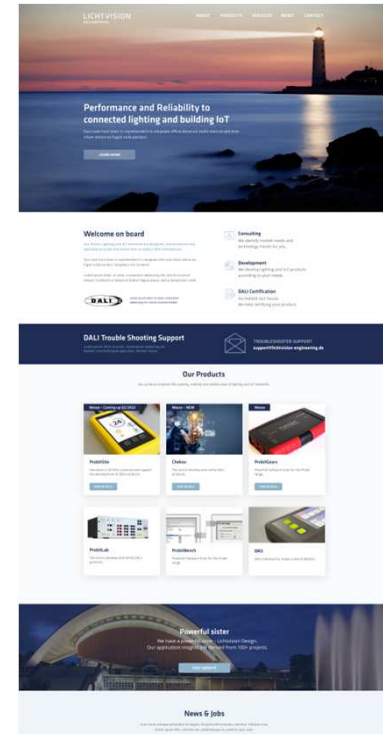

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Company   since 1998 in Berlin Germany

Standardisation   IEC TC34 WG11 Convenor - IEC62386

Developer   for DALI ... also IoT (dual BT-WiFi)

Manufacturer   ProbitGears, IoT Sensor "Chekov", ProbitLab2

ProbitLab2

ProbitLab2 tests the DALI interface

> *Control Gears*
> *Control Devices*
> *Bus Power Supplies*

How to test the Application?

> *Installation Setup*
> *Lots of Luminaires*
>
> *...very limited*

Lichtvision's smart solution...

ProbitGears

"We invented it, because we needed it."

The triggering project: "DALI Gateway"

   Verify the correct handling of up to 64 luminaires.

   How to create a short address conflict.

   Emergency devices with 24h charging cycle.

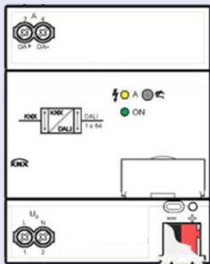We do believe, many other developer share the very same needs.

How it works

With just two connections the whole test setup is done.

DUT	ProbitGears	Personal Computer
Anything meant to control luminaires	*Real time platform*	*Visualize all control gears' variables*
Maybe a DALI application controller.	*DALI terminals ⇐ ⇒ USB connector*	*Change anything at run time*

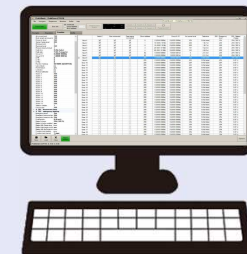**LICHTVISION**
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ProbitBench

Everything comes together in the ProbitBench.
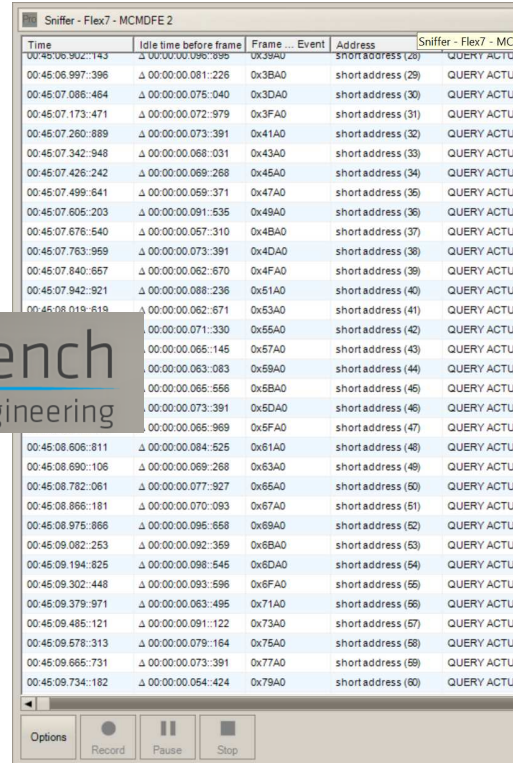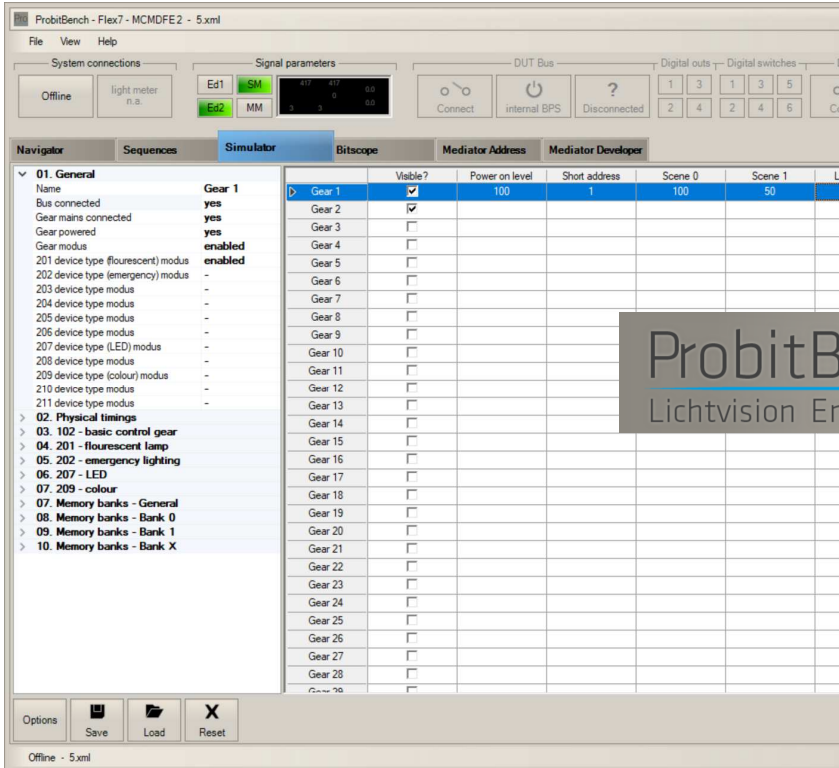
Personal Computer

*Works with **ProbitBench**, because some functionality like the Sniffer is shared with other Probit devices.*
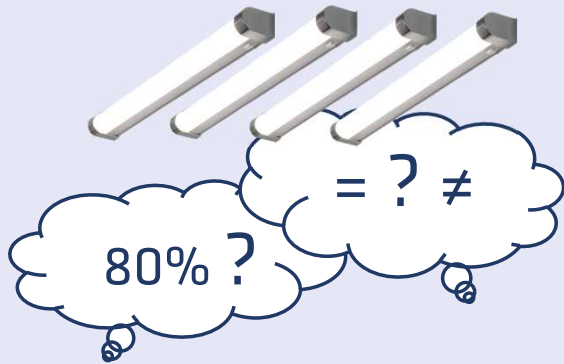
See the invisible

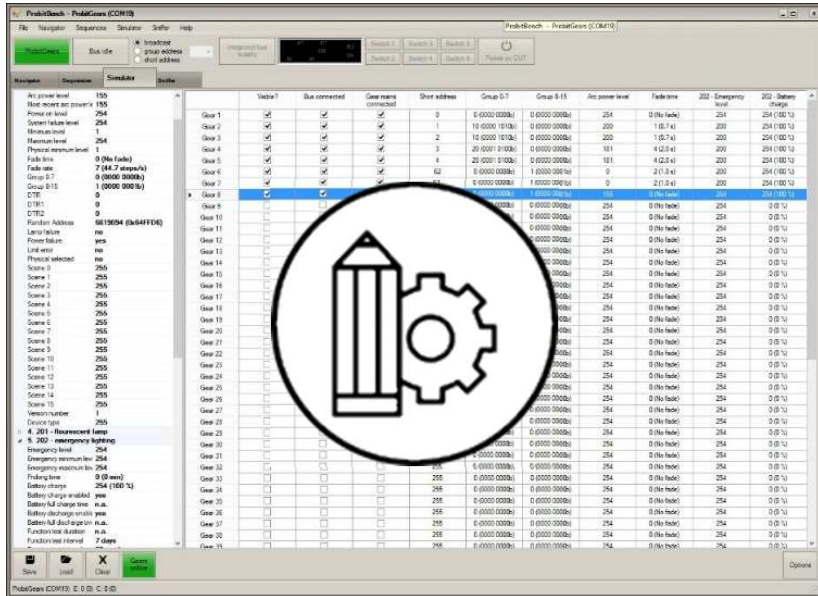*For FadeTime, Level, Scene, …*

With a bunch of real luminaires…

➢ *it is impossible to identify a certain light level.*

➢ *Practically all variables are invisible, like scene levels, fade times, groups and so on.*

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Runtime control

Change the situation like a real application do

Introduce individual characteristics of certain manufacturer's devices or even make them act erratic.

Out of the blue you can:

➢ *Remove a short address*

➢ *Generate an address conflict*

➢ *Set bit timings and answer delays*

➢ *Select supported device types*

➢ *Change any variable of the gear*

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Emergency Batteries

Shorten Test Times to a level, making such tests possible for the first time ever.

Multiple repetitions of real battery duration test are not feasible.

No chance to test this at all.

Adapt the simulation itself !

Select the discharge and recharge time.

Set your desired rated duration.

Repeat your testing as often as needed within minutes.

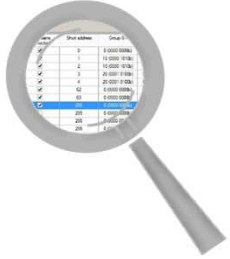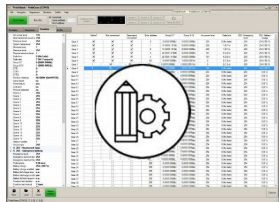*This is the first time ever such test becomes possible.*

3h → 3m

24h → 24s

Hands On

Pricing

Starting at € 3900 with ProbitBench included - 60€/gear only. And choose from many great add-ons.

24h

65 Gears

€ 3900

Hardware + Control Gear part 102

Emergency	(DT1)	+ 2900 €
LED	(DT6)	+ 2600 €
Colour	(DT8)	+ 2900 €

Add-ons can be purchased later as required. Installation via code file.

ProbitBench
Lichtvision Engineering

Probit for the Lab

Tools for the Lab

> *ProbitLab2 ⇨ Interface*
> *ProbitGears ⇨ Application*

How to test the Installation?

> *leave the lab and go to the site*
> *engineers do not leave the lab*
>
> *installer has to do it*

Lichtvision's smart solution...
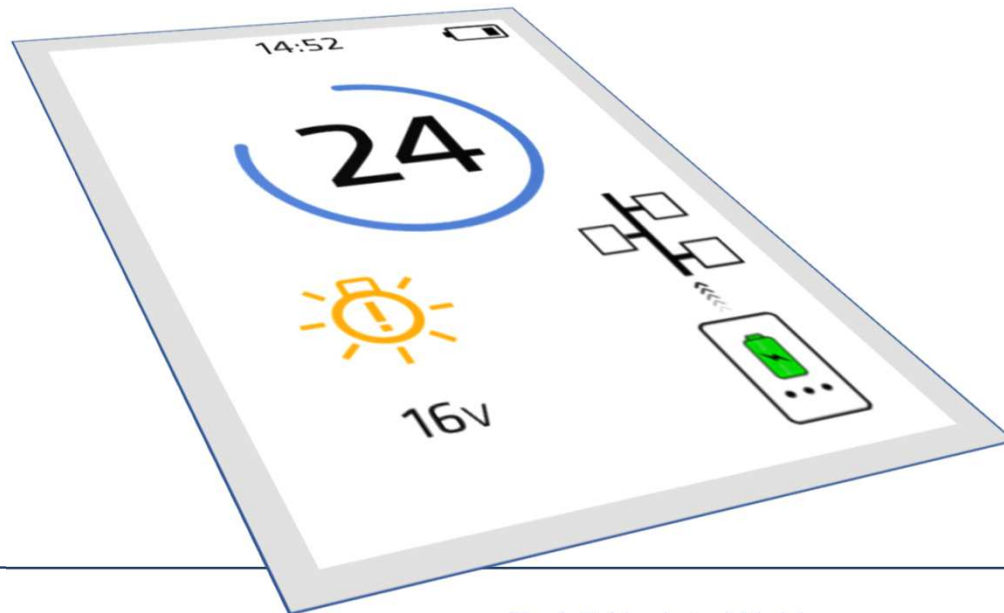
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ProbitSite

"*Just as easy as a voltmeter.*"

- ✓ Turn on
- ✓ Connect
- ✓ Read off

Display

✓ Large 3.5" Display
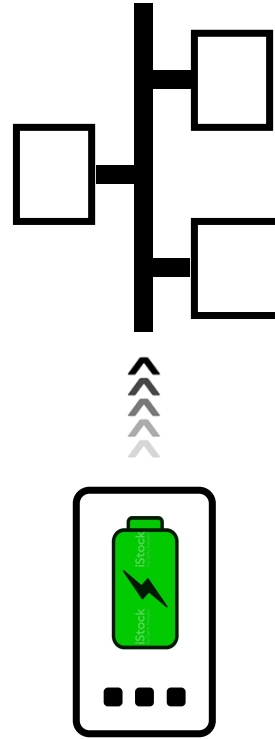
✓ High Luminance

✓ Simple Icons

> ➤ *The project is often worked under time pressure and on the ladder at a great height I certainly don't need a weak little display.*

> ➤ *The ProbitSite's large and bright display and simple graphical icons allow me to see everything at a glance.*

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Bus Power Supply

- ✓ Integrated
- ✓ Min. 200mA
- ✓ Smart Connect

➤ *Nothing works on the DALI bus without a bus power supply! If I want to check my system, I don't want to have to worry about how the bus is powered.*

➤ *The ProbitSite does this for me. Its integrated bus power supply switches on automatically when required and is switched off when there is already a supply on the bus.*
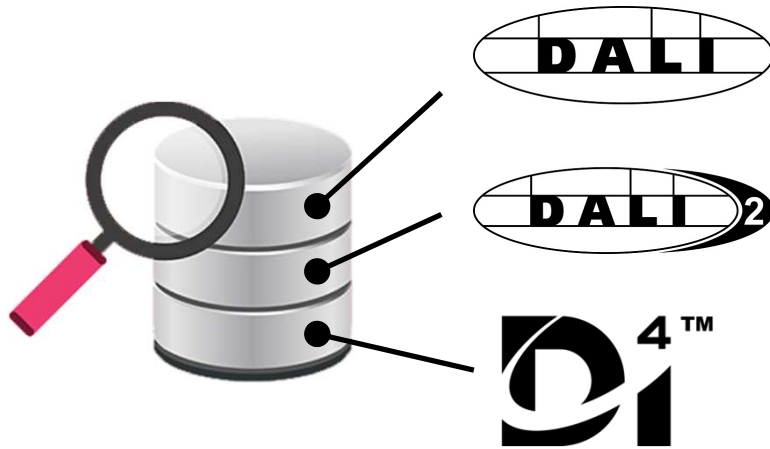
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Smart Scan

✓ The ProbitSite can track and read any device without changing anything.

➢ *Control Gears + 2xx*

➢ *Input Devices + 3xx*

➢ *Application Controller*

➢ *Bus Power Supplies + 250*

Certification Check

✓ Checks all components and marks devices without an entry in the DiiA database.

➢ *I can't always decide which components go to the construction site. I also don't know which electronic ballast was installed in a lamp.*

➢ *The "Certification Check" finds non-certified products. These are sometimes not fully tested and can therefore still contain errors that often only become apparent when the system is in operation.*

➢ *Scenes 1-4 work perfectly, but surprisingly scene 5 doesn't...*

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Signal Check

✓ ProbitSite makes visible what otherwise only an expert with an oscilloscope can see: poor signals.

➢ *The standard defines exactly what the signals on the bus must look like so that everyone understands everyone else.*

➢ *If a device does not comply with these specifications, it is possible that others will no longer understand it with certainty. Such errors might show up later sporadically during operation.*

➢ *The ProbitSite checks the signals according to the standard and gives advance warning if something is wrong.*

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Proof

✓ Readings are intelligently merged into a manufacturer-independent protocol.

	41	Level 1 - North Wing	2020-01-14 / 14:25	
67	1	AC OSRAM GmbH	DALI PRO 2 IoT	101, 103
68	4	ID OSRAM GmbH	DALI SENSOR LS/PD LI UF G2	101, 103, 303, 304
69	14	CG OSRAM GmbH	ETI DALI 35/220-240/700 LT2	101, 102, 207
70	22	CG OSRAM GmbH	OTi DALI 75/220-240/700 D NFC TW L	101, 102, 207, 209
	28	Level 1 - North Wing	2020-01-14 / 14:41	
71	1	AC OSRAM GmbH	DALI PRO 2 IoT	101, 103
72	27	CG HYTRONIK	DALI-2 Constant current LED driver DT8, Max 45W	101, 102, 207, 209

69		72	
1	223-4573-3456	1	223-4573-3456
2	223-4573-3456	2	223-4573-3456
3	223-4573-3456	3	223-4573-3456
4	223-4573-3456	4	223-4573-3456
5	223-4573-3456	5	223-4573-3456
6	223-4573-3456	6	223-4573-3456
7	223-4573-3456	7	223-4573-3456
8	223-4573-3456	8	223-4573-3456
9	223-4573-3456	9	223-4573-3456
10	223-4573-3456	10	223-4573-3456
11	223-4573-3456	11	223-4573-3456
12	223-4573-3456	12	223-4573-3456
13	223-4573-3456	13	223-4573-3456
14	223-4573-3456	14	223-4573-3456
		15	223-4573-3456
70		16	223-4573-3456
1	223-4573-3456	17	223-4573-3456
2	223-4573-3456	18	223-4573-3456
3	223-4573-3456	19	223-4573-3456
4	223-4573-3456	20	223-4573-3456
5	223-4573-3456	21	223-4573-3456
6	223-4573-3456	22	223-4573-3456

➢ *I always connect the ProbitSite after installing a few devices. This way I can isolate a faulty device much faster.*

➢ *The ProbitSite notices that I'm still working on the same bus line and updates its log.*

➢ *In the end, I get a precise picture of my installation, no matter where and how often I have used the ProbitSite.*

What is all this good for?

Eliminate trivial errors

☒ *A broken control gear or a loose wire...*

➤ *If there's an error, I'll **find it right away***

☑ *I do not have to return to track down errors and fix them later.*

Unmask false errors

☒ *Others later might claim I made a mistake...*

➤ *My **log** shows that everything is connected **correctly**, and which **components** were installed.*

☑ *In the event of a dispute, I have a secure position.*

Prevent potential errors

☒ *Some problems only appear later in operation...*

➤ *The Signal Check detects **hidden weaknesses**.*

➤ *The Certification Check shows non-**certified** devices.*

☑ *My customer satisfaction increases.*

Pricing

Purchase the hardware and all the software is included.

"Just as easy as a voltmeter."

€ 649

Going back to the construction site just once is more expensive.

ProbitLine Update Webinar

ProbitLab2

test the interface

ProbitGears

test the application
make testing possible

ProbitSite

leave the lab and go to the site
installer can test on site

Lichtvision's smart solutions

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See You next Time

Performance and Reliability for
connected lighting and building IoT

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