

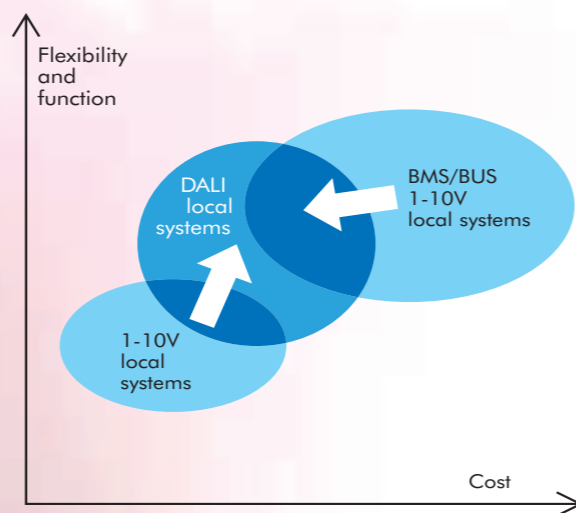
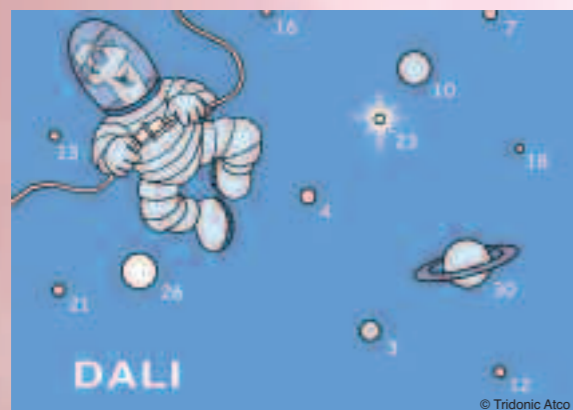


Lighting controls (advanced)

DALI (Digital Addressable Lighting Interface)

DALI is the industry open digital protocol. All the major ballast manufacturers supply equipment that, in theory, is compatible with DALI equipment from other makers. DALI equipment is addressable and should be enabled

for bidirectional communication. This allows DALI systems to offer higher functions (emergency self-test, fault reporting etc.), which basic systems cannot. However, addressing is complex and only valuable if these functions are needed.



Architectural lighting

Whilst most lighting control is centred around fluorescent lighting, architectural lighting usually requires control of light sources of several different types. This is still normally done through a dimming rack, with each circuit configured for a different type of output. The rack will usually have a scene setting module to allow the lighting to respond to sensor or time/date information with automatic programming.



RGB (Red Green Blue)

RGB systems can be used to produce high quality white light, but are normally used for colour changing. Fluorescent lamps give a more cost-effective colour change effect than is available from LEDs, especially where substantial power is needed. However, RGB requires each fitting to house three dimmable ballasts, each separately controlled on a different circuit.



DMX

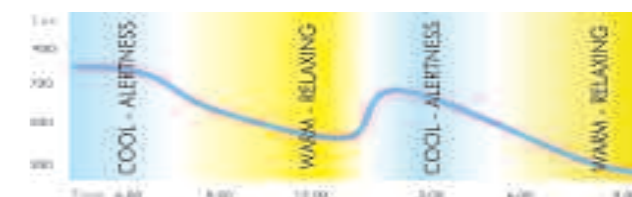
DMX is a protocol imported from the entertainment industry. Its main function in lighting is for transmitting dynamic images. It is the best protocol for pixelated displays, usually with arrays of LEDs carrying moving text or video based inputs, but also where complex colour management is required.

Dynamic lighting

Dynamic lighting is a generic concept that can be applied in many different ways, the dynamic principle being only that light changes in colour and intensity over time. However, the interesting aspect of the idea in relation to workplaces, is whether they can be made healthier and more productive by using lighting in this way.

Circada

Circada is a sub-category of dynamic lighting centred on white light that changes in hue and intensity across a daily cycle. The idea is that this type of lighting can support the natural biological circadian rhythms of the body. The theory is that this will induce greater well-being for people working with little daylight, but also give them better concentration and cognitive performance.



Circadian Dynamic Lighting Example