UTC Temporary Signal Deployment (Urban Traffic Control)

TfL Lane Rental
Industry Publication

TRANSPORT FOR LONDON

Introduction

Transport for London (TfL) is committed to keeping London moving.

Part of this is maintaining modal flow on the TfL road network, more commonly known as 'red routes', which is achieved through TfL's operation of all 6,300 traffic lights in London.

Using Urban Traffic Control (UTC) systems, TfL are able to change the length of time a light is green or red to clear an unexpected queue and control the amount of vehicles moving into congested areas.

When road works are required to be carried out temporary portable light signals are sometimes necessary to maintain safe passage through the works area, which can have a significant impact to the operation of the road.

To minimise the impact of these temporary signals during works, a method was introduced to enable the remote control and adjustment of signal timings through TfL's UTC system, so they can be dynamically optimised for local conditions and linked with the surrounding traffic signal network.

The use of UTC connected temporary signals has expanded rapidly since their introduction seven years ago. As the process has evolved, guidance on their use has been, for the most part, undertaken on an ad-hoc and informal basis.

A project was therefore proposed to develop a formal process which could be shared with those wishing to undertake works.

The Project

To facilitate the development of guidance for the deployment of UTC connected temporary signals, a stakeholder working group was established. The aim of the group was to design, agree and formally document the new process that all could use.

In addition, the group developed a cost recovery mechanism, as costs to implement UTC control have been absorbed by TfL since the facility became available which is not sustainable in the longer term.

Outcomes

The new process has been formally documented as PRO457 and has been distributed with stakeholders, who are now using it. This has led to the following improvements:

- Improved inter-departmental communications.

- Improved safety through better understanding of UTC portable signal operation.

- Benefits to all road user modes, as better solutions are being deployed.

Lessons Learnt

Originally intended to be delivered by a third party, the COVID pandemic resulted in the decision to undertake delivery in-house, on the assumption of additional capacity. In reality, COVID created additional demands, making process development more difficult, significantly delaying progress.

Given the resource demands, the project would have benefited from a dedicated project manager.
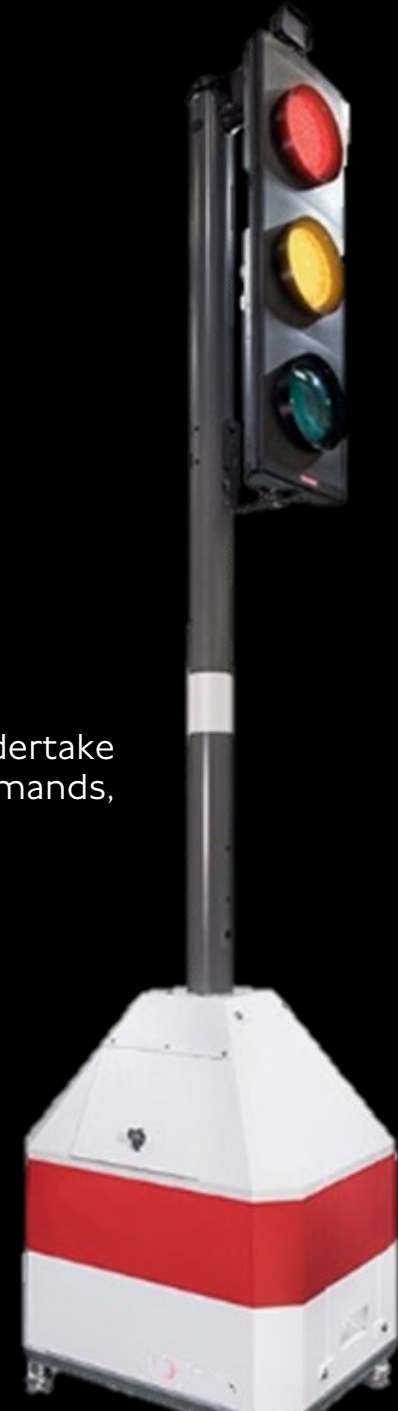
Conclusion

The project has successfully developed a formal process by which temporary portable light signals are connected to TfL's UTC system.

The landscape of UTC temps is changing rapidly as new products are developed, in part, due to TfL's commitment to their use.

Further work is required to develop a long-term funding arrangement to achieve cost recovery.

It is therefore recommended that the process be reviewed annually to ensure that it adapts to this changing landscape.

This should be accompanied by ongoing updates to stakeholders, to ensure they are aware of any process and equipment changes.

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TfL Lane Rental Scheme

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