Digital Traffic Regulation Orders

A guide for decision-makers on their benefits

Why read this?

- Find out what is happening about the digitalisation of Traffic Regulation Orders (TROs) in order to make informed decisions
- See what options are available and what you can do now, without risk of obsolescence
- Find out where more information is available for technical people to engage

What's a Traffic Regulation Order (TRO)?

- It is the legal basis of road closures from roadworks to street parties, speed / height / weight limits, banned turns, one-way streets and parking restrictions/ tariffs/ entitlement, plus experimental traffic layouts, anti-terrorism and many more nuances

What's a D-TRO?

- Current TROs are "made" and published as paper documents by Traffic Authorities (TAs) by law, following a process of consultation and approvals. These are largely text-based legal documents. Many TAs are adopting map-based schedules
- Many authorities already also have a digital version of their TROs (including a map for example) and design / maintain their TROs digitally, but still have a legal, paper-based final output. There are currently many digital formats of TRO used by TAs and multiple software services available from different suppliers
- Accessing a text-based TRO, or one of many digital formats of TROs, is difficult for:
    - o those that need to be consulted about TROs
    - o users of TRO data like neighbouring authorities, the citizen, utilities, sat-nav services, new connected kerb services, future mobility services and highly automated vehicles

To address this, the Department for Transport (DfT) want to use a single data standard for publishing a Digital TRO **(D-TRO**) and create a central store of those that have been published by TAs for others to access. The DfT has been developing and testing with TAs and suppliers such a standard "data model" for several years, aligning with international standards and emerging UK best practice, as well as the foibles and challenges of TROs actually used and deployed locally. This data model has been formally prototyped as part of a contract with the DfT's external supplier Informed Solutions.

What are the benefits of Digital TROs?

Even without a standard format, TAs have already seen benefits from digitising TROs:

- Easier consultation, using digital maps and online forms
- Quicker processes for TRO approvals e.g., of electric vehicle parking
- Cost savings from quicker TRO design and approval, less time on checking
- Fewer penalty charge notice appeals rejected through a lack of an available TRO document or inconsistency with signing

- Ability to design and change and publish TROs quickly in line with policy needs
- Sharing TROs to plan street works and check for legality and shared closures

The annex has case studies of the benefits of digitising TROs. Above and beyond this, having one standard for publishing D-TROs, once made locally by TAs or in consultation, means:

- Consistent and legally correct regulation data nationwide – e.g., a single speed limit database rather than using cameras, a single set of all height/weight limits and banned turns for sat-nav, quicker updates of sat-navs following road closures to help deliveries and reduce congestion, better planning for utilities to share works and use TRO data linked to Street Manager (the DfT's centralised service for street works permits)
- New policies and services can be deployed, such as the National Parking Platform (NPP) that will allow payment for parking with a single app and reduce TA costs for parking operations – on-street parking is controlled via TROs
- A way of making all changes to road regulations shared from one single place for the whole nation, not 200-plus data sources and to many different users
- Enabling wider adoption of new services such as virtual loading bays that paper TROs are not simply dynamic or accessible enough to support

What do you need to do?

DfT will only receive and store D-TROs in a standard format from TAs who will still need to:

- Design and develop new TROs and publish them for local users
- Convert TROs to digital ones in the standard data format (**to become** D-TROs)
- Liaise with statutory consultees and the public

There will be no central tools for designing or publishing D-TROs provided by DfT – how to do this is the choice of each TA, there are already proven digital services from a variety of providers. Or you may choose to develop systems in house. The key is that D-TROs will need to be published centrally in a standardised digital form (the D-TRO "model").

This is currently being prototyped, with the governance, quality needs, and access to data being considered. DfT is also considering the burdens on TAs of such an approach.

However, many TAs have already found the benefits of using digital tools for managing TROs to be significant. All service providers have agreed to adapt to the finalised single standard for publishing D-TROs, so there should be no need to "wait for the DfT to finalise the system" before thinking about procuring products for producing or digitising TROs.

So, you should start to prepare for it by talking to your service provider who will be aware of what we are doing and what the data model looks like. If procuring software to digitise TROs, you may wish to make it a condition of procurement that the provider will be able to provide D-TROs in the standard format needed for publication.

Where is more information available?

The Transport Technology Forum (TTF) will be starting a Working Group for D-TROs to complement those it already has on smart parking and connected vehicles. Joining this will

mean access to the main channel for updates both from DfT on their development and service suppliers DfT is working with to digitise TROs.

The TTF micro-site for D-TRO will host documents when it is up and running. Updates to this document will give more details and links when available.

Annex: The Benefits of digitising TROs to a Traffic Authority

Before benefits from combining D-TROs centrally, there are immediate benefits to a Traffic Authority (TA) from moving to map-based digitised TROs. These come from time savings in the order-making process, subsequent quicker access to them for enforcement and penalty tribunal use, and for engineering design, safety analyses, legal searches and many other local government day-to-day activities.

And there are also further benefits from:

- Supporting digital consultation on proposed order changes;
- Freeing up staff time for other more valuable tasks they otherwise do not have time to do by removing manual processes;
- Having the ability for the entire TA to see and share TROs as they develop through to publication – a single shared view of your network;
- Enabling TROs to be passed to sat-nav companies to influence their route choice; and
- Being able to share your data has benefits to the TA in terms of coordination, to applicants in terms of time saving (such as utilities) and to the public to understand the impact of works. This can help reduce complaints and enquiries.

Up-to-date TROs are key to adopting Traffic Management Act Part 6 to enforce moving traffic contravention orders. This side of order management has most typically been held in hardcopy, but digitised moving orders can now be seamlessly integrated to ANPR enforcement systems, resulting in efficient and robust processing.

Specific examples of savings are:

Southwark Council, who since they have transitioned to digital TROs, have seen time-saving efficiencies in the traffic order process of 75% versus how they were previously managed. A direct benefit is that they have been able to double the deployment of Cycle Hangar bays in the borough, helping them decarbonise from the kerb up.

See: https://appyway.com/portfolio/southwark-council-accelerating-cycle-hangars/

Several local authorities within Wales are drafting speed limit orders for their 20mph zones and digitally mapping these for transparency as well as improved audit trails and asset management on the local authorities' GIS mapping systems. This work is being completed alongside the Welsh Local Government Association Speed Limit changes.

See: https://www.buchananorders.net/case_studies.html