Digital display standards

Issue 3
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Foreword

Digital display standards have been produced to ensure consistency across all of TfL’s digital displays.

They are designed to ensure consistency of spacing, size of font, use of colour etc.

The standards also help to ensure that information is displayed in a modular nature.

The standards do not specify the type of hardware or software to be used.

‘Digital displays’ are defined in this document as electronic screens that convey TfL controlled information to customers via live feeds.

Such displays may be in stations, on vehicle or on street.

These standards do not apply to websites or dot matrix indicators.

For guidance on implementing the rules within these standards please email corporatedesign@tfl.gov.uk
This section provides guidance on the basic elements that make up the TfL digital display standards.

Further information on TfL graphic standards can be found at tfl.gov.uk/corporatedesign.
1.1 The grid

All TfL digital displays must work to a grid, as shown.

A grid is used to ensure that a transferable unit of measurement is available for all screen sizes and aspect ratios. A grid should adapt to any screen size or aspect ratio.
1.2 Screen aspect ratios

Shown here are examples of common screen aspect ratios.

Note that aspect ratios (as well as screen dimensions) will vary in size.
Each grid is composed of a number of units.

A 16:9 screen is 16 units wide by nine units deep and a 21:9 screen is 21 units wide by nine units deep.

Regardless of the screen size the number of units used is to be determined by the aspect ratio.
1.4 Squares

Each unit is divided into 8 x 8 squares to enable font sizes to be set at a reasonable height in relation to the overall screen display area.

The square is the base unit of measurement for TfL digital displays.
A ‘widget’ is defined as a self-contained piece of customer information. The information may relate to train arrival times, bus departures, cycle docking station availability etc.

All information contained within a widget must be clear and identifiable.

Widgets may vary in size.
1.6 Widget mock-ups

Further mock-ups of widgets at different sizes containing customer information are shown here.
1.7 Typography

The only font to be used on digital display screens is the New Johnston typeface.

There are two weights of the New Johnston font that may be used:

• New Johnston Medium for headings
• New Johnston Light for body copy

All text is to be ranged left (except numerals, which are to be ranged right where appropriate).

All text is to be displayed in mixed upper and lower case (never all upper case).

Always ensure good colour contrast between text and background colour. The relationship between the text and background colour is more important than the colour of the text itself.
1.8 Font sizes

There are three font sizes that are to be used on TfL digital displays:

**Four squares high**
This size text is to be used for main headings.

**Three squares high**
This size text is to be used for primary information where space allows.

**Two squares high**
This size text is used for all other information.
1.9 Viewing distances

Grid sizes should be determined by viewing distances.

Text should always be shown at the correct height for the viewing distance (e.g., a viewing distance of six metres should display the smallest text size, within the display screen, at a cap height of 20mm).

In such an instance, as above, with the smallest font size being two squares high, each square on the grid would need to represent 10mm when displayed (2 x 10mm = 20mm).

An appropriate display screen size should be used to reproduce text at the correct size.
This list shows acceptable contractions of names for use on digital screens.

If a situation arises where there is a need to contract a name not covered here, please seek advice in the first instance from TfL Corporate Design.

In order to maintain consistency across all TfL information, changes to any names or contractions of names are subject to approval by TfL Corporate Design.

<table>
<thead>
<tr>
<th>Approach</th>
<th>App</th>
<th>Garden</th>
<th>Gdn</th>
<th>Place</th>
<th>Pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avenue</td>
<td>Ave</td>
<td>Gardens</td>
<td>Gdns</td>
<td>Public House</td>
<td>Ph</td>
</tr>
<tr>
<td>Bridge</td>
<td>Bdg</td>
<td>Great</td>
<td>Gt</td>
<td>Railway</td>
<td>Rly</td>
</tr>
<tr>
<td>Broadway</td>
<td>Bdy</td>
<td>Greater</td>
<td>Gtr</td>
<td>Road</td>
<td>Rd</td>
</tr>
<tr>
<td>Central</td>
<td>Cent</td>
<td>Green</td>
<td>Grn</td>
<td>Saint</td>
<td>St</td>
</tr>
<tr>
<td>Church</td>
<td>Ch</td>
<td>Grove</td>
<td>Gve</td>
<td>School</td>
<td>Sch</td>
</tr>
<tr>
<td>Circus</td>
<td>Cir</td>
<td>Heath</td>
<td>Hth</td>
<td>South</td>
<td>Sth or S</td>
</tr>
<tr>
<td>Close</td>
<td>Cl</td>
<td>Highway</td>
<td>Hwy</td>
<td>Square</td>
<td>Sq</td>
</tr>
<tr>
<td>Common</td>
<td>Com</td>
<td>Hospital</td>
<td>Hosp</td>
<td>Station</td>
<td>Stn</td>
</tr>
<tr>
<td>Corner</td>
<td>Cnr</td>
<td>Industrial</td>
<td>Ind</td>
<td>Street</td>
<td>St</td>
</tr>
<tr>
<td>Court</td>
<td>Ct</td>
<td>Junction</td>
<td>Junc</td>
<td>Terrace</td>
<td>Tce</td>
</tr>
<tr>
<td>Crescent</td>
<td>Cres</td>
<td>Lane</td>
<td>Ln</td>
<td>Tower</td>
<td>Twr</td>
</tr>
<tr>
<td>Cross</td>
<td>X</td>
<td>Little</td>
<td>Lt</td>
<td>Town</td>
<td>Tn</td>
</tr>
<tr>
<td>Dock</td>
<td>Dk</td>
<td>Lower</td>
<td>Lwr</td>
<td>Tunnel</td>
<td>Tnl</td>
</tr>
<tr>
<td>Docks</td>
<td>Dks</td>
<td>Market</td>
<td>Mkt</td>
<td>Upper</td>
<td>Upp</td>
</tr>
<tr>
<td>Drive</td>
<td>Dr</td>
<td>Mount</td>
<td>Mt</td>
<td>Vladuct</td>
<td>Vdct</td>
</tr>
<tr>
<td>East</td>
<td>E</td>
<td>North</td>
<td>Nth or N</td>
<td>Village</td>
<td>Vge</td>
</tr>
<tr>
<td>Estate</td>
<td>Est</td>
<td>Palace</td>
<td>Pal</td>
<td>Walk</td>
<td>Wk</td>
</tr>
<tr>
<td>Farm</td>
<td>Fm</td>
<td>Parade</td>
<td>Pde</td>
<td>West</td>
<td>W</td>
</tr>
<tr>
<td>Garage</td>
<td>Gar</td>
<td>Park</td>
<td>Pk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.11 Primary colours

TfL’s primary pallet consists of a number of colours which are used across all digital display screens.

Primary

- **Corporate Blue**
  - Hex: #0f357f
  - R: 53, G: 58, B: 140

- **Text Grey**
  - Hex: #2d303c
  - R: 45, G: 48, B: 57

- **Disruption Yellow**
  - Hex: #fb565b
  - R: 252, G: 198, B: 79

- **Legible London Blue**
  - Hex: #031326
  - R: 3, G: 16, B: 65

- **Background Grey**
  - Hex: #c1c1c1
  - R: 238, G: 238, B: 238

- **Evacuation Red**
  - Hex: #e7142a
  - R: 220, G: 36, B: 31

- **Base Blue**
  - Hex: #0f357f
  - R: 28, G: 48, B: 57

- **Base Light Blue**
  - Hex: #0a1d34
  - R: 49, G: 107, B: 152
### 1.12 Mode and line colours

In addition, there are mode specific and Underground line specific colours.

No other colours are to be used without prior consent from TfL Corporate Design.

<table>
<thead>
<tr>
<th>Modes</th>
<th>Underground lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Car</td>
<td>Bakerloo</td>
</tr>
<tr>
<td>R220 G36 B31</td>
<td>R178 G99 B0</td>
</tr>
<tr>
<td>Buses</td>
<td>Central</td>
</tr>
<tr>
<td>R220 G36 B31</td>
<td>R220 G36 B31</td>
</tr>
<tr>
<td>Coaches</td>
<td>Circle</td>
</tr>
<tr>
<td>R241 G171 B0</td>
<td>R255 G211 B41</td>
</tr>
<tr>
<td>Elizabeth line</td>
<td>District</td>
</tr>
<tr>
<td>R119 G61 B189</td>
<td>R0 G125 B50</td>
</tr>
<tr>
<td>Cycles</td>
<td>H’smith &amp; City</td>
</tr>
<tr>
<td>R220 G36 B31</td>
<td>R244 G169 B190</td>
</tr>
<tr>
<td>Dial-a-Ride</td>
<td>Jubilee</td>
</tr>
<tr>
<td>R183 G33 B191</td>
<td>R161 G165 B167</td>
</tr>
<tr>
<td>DLR</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>R0 G175 B173</td>
<td>R155 G0 B88</td>
</tr>
<tr>
<td>Overground</td>
<td>Northern</td>
</tr>
<tr>
<td>R239 G123 B16</td>
<td>R0 G0 B0</td>
</tr>
<tr>
<td>River</td>
<td>Piccadilly</td>
</tr>
<tr>
<td>R0 G160 B226</td>
<td>R0 G25 B168</td>
</tr>
<tr>
<td>Taxi/Private Hire</td>
<td>Victoria</td>
</tr>
<tr>
<td>R132 G128 B215</td>
<td>R0 G152 B216</td>
</tr>
<tr>
<td>TFL Rail</td>
<td>Waterloo &amp; City</td>
</tr>
<tr>
<td>R0 G25 B168</td>
<td>R147 G206 B186</td>
</tr>
<tr>
<td>Trams</td>
<td></td>
</tr>
<tr>
<td>R0 G189 B25</td>
<td></td>
</tr>
<tr>
<td>Underground</td>
<td></td>
</tr>
<tr>
<td>R0 G25 B168</td>
<td></td>
</tr>
</tbody>
</table>
1.13 Branding

Information on the display screen should be branded by one of the logos or pictograms shown here.

All logos and pictograms are available from TfL Corporate Design.
Modal and line banners are to be used to help identify the mode of transport or Underground line that the information being displayed relates to.

All banners are available from TfL Corporate Design.

<table>
<thead>
<tr>
<th>Modes</th>
<th>Underground lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport for London</td>
<td>Bakerloo line</td>
</tr>
<tr>
<td>DLR</td>
<td>Central line</td>
</tr>
<tr>
<td>Elizabeth line</td>
<td>Circle line</td>
</tr>
<tr>
<td>Emirates Air Line</td>
<td>District line</td>
</tr>
<tr>
<td>London Buses</td>
<td>Hammersmith &amp; City line</td>
</tr>
<tr>
<td>London Dial-a-Ride</td>
<td>Jubilee line</td>
</tr>
<tr>
<td>London Overground</td>
<td>Metropolitan line</td>
</tr>
<tr>
<td>London River Services</td>
<td>Northern line</td>
</tr>
<tr>
<td>London Taxi and Private Hire</td>
<td>Piccadilly line</td>
</tr>
<tr>
<td>London Trams</td>
<td>Victoria line</td>
</tr>
<tr>
<td>London Underground</td>
<td>Waterloo &amp; City line</td>
</tr>
<tr>
<td>Santander Cycles</td>
<td>National Rail</td>
</tr>
</tbody>
</table>
Additional graphical elements are to be used where appropriate.

Please note that graphical elements shown here are examples only.

Please contact TfL Corporate Design for any graphical element required.
1.16 Lines and rules

There are two types of line that are displayed on a digital screen.

**Solid line**
The height of a solid line is 0.25 x 1 square high.

**Dotted line**
A dotted line consists of a row of circles with a diameter of 0.25 x 1 square. Space between each circle is 0.25 x 1 square.

Lines are always to be anchored vertically to the centre of a grid line.
This section explains the basic rules of layout for a digital display.

The examples shown will be for a 16:9 display screen. The content will be representative.

Please note that these are mock-ups only and that final details for each display screen will be determined by the specific requirements of individual briefs and research undertaken with customers.
This 16:9 example consists of two 8:8 widgets and a 16:1 widget.

Both 8:8 widgets have left and right-hand margins of two squares each. The 16:1 widget, which will contain news feed information, has a left and right-hand margin of two squares each.
2.2 Logos and headings

The logo is always to be displayed at nine squares wide. The main heading is always to be displayed at four squares high.

The logo must be centered on the title copy as shown in the example opposite.
2.3 Mode/Line banners

Modal and line banners are to be displayed at three squares high beneath the branding and main heading.
2.4 Platform information

A platform identifier is to be placed two squares below the modal/line banner. It is to be set at nine squares wide.

Text within the platform identifier is preset and provided as a graphic element. Do not attempt to type in text within the platform identifier.

Text identifying the platform direction is set at four squares high. The secondary platform directional text is set at two squares high.

A rule is placed two squares below the platform identifier and is the same width as the modal/line banner.

**Note**
When more than one platform direction is displayed, the order of display is (from left to right) Northbound, Eastbound, Southbound and then Westbound.

Only when local geographical necessities dictate otherwise may this order be changed.

If in doubt, contact the TfL Graphic Design team.
Service information should be displayed in a manner that allows customers to easily follow the information presented in a hierarchical manner.

Text size used should take into account viewing distances and hierarchy of information. However, only the three text sizes shown earlier in the document (see section 1.7.1) should ever be used.

The example shown here illustrates the order of train arrival, the end destination of the train and the wait time before the train arrives.

Supplementary information such as the ‘calling at’ locations may also be shown below the main information.
A clock is to be displayed on all screens to indicate to customers that the information displayed is live.

The clock should always be placed on the right-hand side of the screen.

The default position on a landscape screen is in the top right-hand corner against the right-hand margin and horizontally centred with the logo. This will place five squares above the clock. The clock itself will be three squares high.

Please note that there is no branding or headline in the second widget, as this area is occupied by the clock.

The clock must be digital and in the format shown (hh:mm:ss).
There will be instances where the clock cannot be displayed in the top right-hand corner. It should therefore be displayed in the bottom right-hand corner as shown.
2.6.2 Clock continued

Where a screen is in portrait mode the clock is positioned above the branding and main heading as shown.
Footer widgets are to be displayed on all screens to provide live data to customers on any subject required (e.g., news).

Text within the footer is set at two squares high. The background colour may be determined by the organisation's brand colour. However, the brand colour used should not clash with any operational mode or line colour used unless agreed by TfL Corporate Design.

Overall, the footer widget should be no more than one unit high. It may, however, vary in width size (depending on screen size).
2.8 Service disruption

When there is a disruption to the service the footer widget is replaced by a service disruption message as shown.

All service disruption information should be displayed on a yellow background.
When a station needs to be evacuated the screen background colour is to be turned red and the text used is to be white.

No clock, footer widget or line identification is to be displayed.
2.10 Multiple Underground lines

Where more than one Underground line is represented on a widget the banners should be displayed as shown.

Where two lines are displayed, the banner is split into two equal halves, with each half representing one of the two lines.

Where three lines are displayed, the banner is divided into thirds, with each third representing one of the three lines.

Each line is to be displayed in correct alphabetical order. (Four Underground lines never use the same stretch of track).
2.11 Multiple train modes

Where more than one train mode is represented on a widget the banners should be displayed as shown.

Train Operating Companies (TOCs) come under the National Rail mode. Neither the TOC logo or TOC banner is ever to be displayed on a display screen. Only the National Rail banner is used to represent TOCs.

Where more than one TfL mode is displayed the all-blue TfL roundel is to be used.

Only one TfL roundel is to be used to brand a piece.

TfL modes are always displayed first and each TfL mode is to be displayed in correct alphabetical order.
3.1 Transitions and animations continued

There is only one style of transition and one style of animation that may be used to bring life to TfL's digital displays.

1 The wipe
The wipe is used to remove information from the screen without removing the entire widget. It travels from one side of an area to the other.

Once information has been wiped clear, the second piece of information is displayed.

2 The animated carousel
This is used to animate moving text where the text required is longer than the area allocated for display.

Text should always move from right to left.

For further information and clarification of transitions and animations please contact TfL Corporate Design.
The following pages show how multiple screens can be used to display digital information.
4.1 Mock-up I

The mock-up here shows a single widget detailing train wait times over two screens.

Two rail modes display service times, service destinations, wait times and platform information.

A news feed widget is displayed in the footer at the bottom screen.

<table>
<thead>
<tr>
<th>Service</th>
<th>Platform</th>
<th>Arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Richmond</td>
<td>9</td>
<td>Due</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Hampstead Heath</td>
<td>6</td>
<td>Due</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Richmond</td>
<td>7</td>
<td>2 min</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; Clapham Junction</td>
<td>8</td>
<td>3 min</td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; Richmond</td>
<td>2</td>
<td>5 min</td>
</tr>
<tr>
<td>6&lt;sup&gt;th&lt;/sup&gt; West Croydon</td>
<td>9</td>
<td>8 min</td>
</tr>
<tr>
<td>7&lt;sup&gt;th&lt;/sup&gt; Clapham Junction</td>
<td>8</td>
<td>9 min</td>
</tr>
</tbody>
</table>
4.2 Mock-up 2

The mock-up here shows four widgets detailing train departures over two screens.

The screen on top displays London Underground District line eastbound and westbound order of arrival, service destination and wait times.

The screen at the bottom displays TfL Rail eastbound and westbound order of arrival, service destination and wait times.

News feed and social media widgets are displayed at the foot of both screens.
4.3 Mock-up 3

The mock-ups here show how four screens can be used to show four different grids (Example 1) or a single grid over four screens (Example 2).

Example 2 may be used where, due to viewing distances, the information needs to be displayed at a larger size for legibility.

Separate news feed widgets are displayed at the foot of each screen in Example 1.

In Example 2 a single news feed widget is shown.
The mock-up here shows four widgets detailing train departures over two screens (side by side).

Two separate news feed widgets are displayed at the foot of each screen.
This section of the document illustrates digital displays in potential live situations.
5.1 Two landscape screens (station entrance)

The mock-up here shows the principles of this document applied to two London Underground departure boards.
5.2 Two landscape screens (station exit)

The mock-up here shows the principles in this document applied to a landmark finder and a bus arrival board.
5.3 Cycle Hire docking station

The mock-up here shows the principles in this document applied to a digital cycle hire update board.
5.4 In-train display

The mock-up here shows the principles in this document applied to an in-train display board.
For further information

These standards intend to outline basic principles and therefore cannot cover every application or eventuality.

In case of difficulty or doubt as to the correctness in the application of these standards, please contact The TfL Graphics team.

Email: corporatedesign@tfl.gov.uk