



THE TOWERS@5

Digital LED Displays

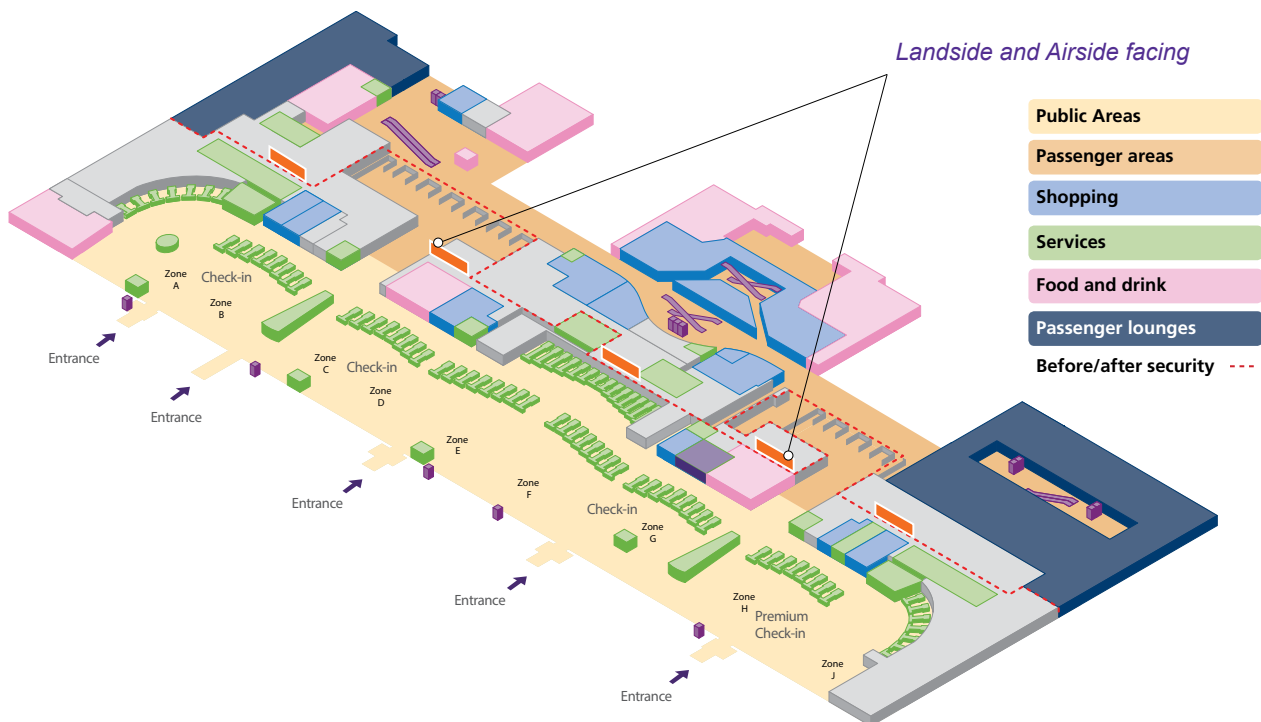
System capabilities and content production specifications

Version 1 May 2015

1. Overview

- Five towers with a total of 7 LED display screens
- 5 landside facing and 2 airside facing displays
- Each display is 14.2m (w) x 6.8m (h)
- Made from 6mm LED display panels
- Image delivery through Scala content management system
- All 7 displays connected to the same operating system with multiple play out capabilities
- Can be treated as one synchronised display or as individual displays

T5 Tower Locations



The 5 landside screens are viewable from the Departures Check-in area while the 2 airside screens are viewable from the Departures Lounge post security.

2. Display Capabilities

LED display specifications

Size: Width: 14.2m, Height 6.8m
Pixel count: 2368 pixels wide x 1136 pixels high at 6mm dot pitch
Technology: 16 bit colour depth
Viewing angle: 140 degrees
Brightness: 2000 NIT

2. Display Capabilities (cont)

Media content manager

The media content manager comprises an onsite content management server together with 7 playout devices (content provider) which is all distributed through the local network and controlled remotely. Each LED display has its own designated content provider on the network which allows for each to be treated in isolation with individual content, if required. Conversely, the content management system allows multiple or all of the LED screens to be synchronised or to display unified content.

- Schedule playlists of multiple content for allocated durations
- Produce airtime reports
- Play multiple images on an individual display e.g. static and moving image viewable on the same screen at the same time (*Fig. 1 & 2*)



Fig.1 Display showing static image on the left and right of the display and a centrally positioned area available for moving image/video content.

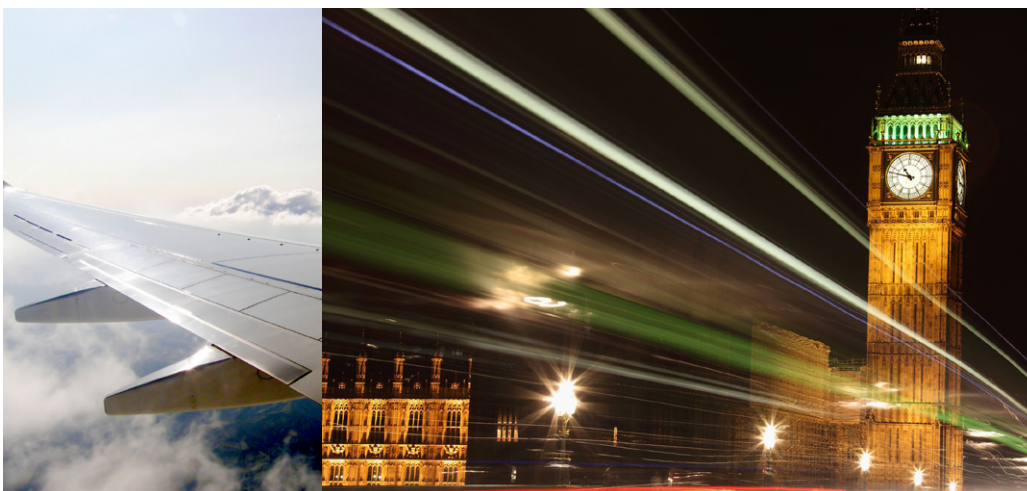


Fig.2 Display showing static image on the left and area for moving image/video content on the right of the screen.

3. Content Creation

The video output of the digital signage player is pixel mapped to match the native resolution of the LED display precisely. No content will be scaled within the system to avoid any stretching or deformation of the original content. Content should be created to meet one of the following options:

- Precisely 2368 x 1136 pixels for a native resolution match of the display, or
- Full high definition @ 1920 x 1080. However please note that this image will fit the display height but black bars will be viewed either side to ensure the image remains 16:9 aspect ratio

Media formats

Media content can comprise video, CGI and static images created in the following formats:

- MOV, WMV, AVI, MPEG 1, 2 & 4 and H.264
- GIFF, TIFF, BMP, JPEG, PNG
- Flash format media files (Adobe Flash version 10 and above)

A max frame rate of 60 frames per second.

As the Towers@T5 are located internally, they are ideal for moving video since rules governing roadside digital displays are not applicable.

The system can be linked to the Heathrow IPTV network so live events can be streamed onto the screens.

- The system supports Windows Media Streaming starting with Release 6 MPEG-2 program / transport and H.264 transport streams are supported over RTSP/RTP.

Windows Media Streaming formats:

HTTP:// URL to a Windows Media redirector file (which is typically a .wmx or .asx file)

MMS:// URL to a Windows Video Stream (which is typically a .wmv or .asf file)

HTTP:// URL to a Windows Video Stream (which is typically a .wmv or .asf file)

The system has eight additional HDMI inputs for other compatible devices to be connected e.g. computers, cameras, DVD players, game consoles etc. A separate scaler may be required to match the display resolution of the system.

Arial font

Pixel height	19	28	40	60
Font Size	28	47	58	87

It is recommended that text be a minimum of 42 pixels in height based on the viewing distance within the terminal. This allows for a maximum of 26 rows of text.

Logos

Logos included in the content (e.g. Facebook, Twitter, etc.) should be a minimum of 83 pixels in height based on viewing distances and pixel pitch.

4. Interactive Campaigns

The system is well suited to form part of an interactive media campaign with rich content engaging viewers and providing links to external sites from their smartphones and receiving data back. Given the broad range of technical possibilities in this area further discussion would be necessary with Heathrow Media and AJAR-tec Limited.

For technical queries contact AJAR-tec Limited : heathrow@ajartec.com 0800 612 2680